One Health Abstracts

A Supplement to the *Official Program*

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Contents

All unsolicited abstracts for the annual meeting undergo a process of blind peer review. Abstracts of papers intended for section programs are reviewed by members of a panel of reviewers from the sections sponsoring the programs. The final decision on program speakers rests with the section program planners. Abstracts for the poster sessions are reviewed by members of the Medical Library Association National Program Committee (NPC), and designated NPC members make the final selection of posters to be presented at the annual meeting.

ICAHIS 1 and ICML 1

Sunday, May 5, 1:30 p.m.–3:00 p.m.

2013 National Program Committee (NPC) and International Congress on Medical Librarianship (ICML)

International Congress on Medical Librarianship 1: New Methods of Publishing

Cosponsored by Collection Development Section

HCC, Level Three, Room 313

1:35 p.m.

Scholarly Video Journals to Increase Productivity in Medical Research and Education

Moshe Pritsker, Chief Executive Officer and Co-Founder, *Journal of Visualized Experiments,* Cambridge, MA

Description: Biological and medical research chronically suffers from the low reproducibility of experimental studies. This is because the traditional text format of science journals cannot provide an adequate description of details and nuances of complex laboratory procedures. This creates a critical "bottleneck" problem of knowledge transfer and productivity in research, education, and drug discovery. Addressing this challenge, *Journal of Visualized Experiments (JoVE)* employs video online to provide a systematic visualized publication of experimental studies, which greatly facilitates the understanding and learning of experimental research procedures. The video-based publication in the rigorous academic format requires a new set of concepts and technical approaches to production and dissemination processes. Being the first video journal indexed in MEDLINE and PubMed, *JoVE* provides a template for the development of scientific video publication and its implications for the scholarly communication and biomedical research community.

1:55 p.m.

The Pace of Change in Practice-Driving Medical Knowledge in New Models of Publishing Δ

Brian Alper, Editor-in-Chief and Medical Director, Clinical Reference and Consumer Health Products, DynaMed, EBSCO, Ipswich, MA; **Alan Ehrlich,** Senior Deputy Editor, DynaMed, EBSCO, Worcester, MA

Objectives: Medical knowledge is estimated to double every two to nineteen years. Sixteen percent of highly cited research is subsequently contradicted. But how much change affects clinical decision making? We will sample evidence syntheses guiding diagnosis and treatment for clinically important topics to determine how much content changes per year and how many changes are due to new evidence or guidelines.

Methods: We will evaluate the change in content over time in a clinical reference that is derived using a systematic evidence-based methodology and updated daily. Two hundred topics representing common or serious conditions will be evaluated. Overview sections (syntheses of the most valid and relevant evidence and guidance informing clinical action) will be analyzed and compared to a date about one to two years prior. We will analyze the number of lines that have changed (modifications, additions, or deletions) and will classify each change as due to new evidence, new guidelines, external feedback, or internal editorial quality improvement activities. The proportion of content that changes due to new evidence or guidelines will be determined and adjusted for time to quantify the amount of practice-driving medical knowledge that changes in one year.

2:15 p.m.

Tricked into Submission: Health Sciences Librarians' Role in Fighting Predatory Publishing and Spamferences Δ

Paul M. Blobaum, Health and Human Services Librarian and Head, Reference, University Library, Governors State University, Park Forest, IL

Objectives: This paper explores the phenomena of predatory publishing, pseudo-scientific conferences, and vanity press publishers. Should these publications and conference presentations count toward tenure decisions? Are faculty tenure and promotion committees also being fooled? This paper explores the librarian role as gatekeeper, curator, and broker of knowledge. What are the characteristics and danger signs of low quality and predatory publishers? How can librarians promote and support publishing with reputable publishers and help improve manuscript quality?

Methods: The author recently served as the chair of the university personnel committee, the tenure and promotion committee at Governors State University, a public university in Illinois, and has served as chair of the library faculty personnel committee. Faculty tenure and promotion committees are unprepared for discerning reputable publishers and conferences from predatory ones or identifying vanity publications. Examples from predatory and vanity publishing and predatory scholarly conferences will be reviewed and analyzed. The core skill sets needed by librarians who support scholarly and professional publishing, and roles for librarians will be proposed.

Results: The extent of the problem is unknown and impact unclear, but librarians have the resources and skills to ensure access to high quality information. Communities of concern and research are forming around these issues, such as Jeffrey Beall's Scholarly Open Access blog. Health sciences librarians are joining other librarians in raising awareness in their communities and fighting back against predatory publishing practices.

Conclusions: More research is needed. "Buyer Beware" must be our motto, for librarians making purchasing decisions, authors seeking to publish their work, and credentialing and tenure committees.

2:35 p.m.

Creating a New "Gratis Open Access" Family Medicine Research Journal

Laura A. McLellan, Editorial Assistant, *Annals of Family Medicine,* Family Medicine Research Division, Case Western Reserve University, Cleveland, OH

Objective: This paper describes the development of a new, peer-reviewed research journal for family medicine and primary health care. In 2001, several nonprofit North American family medicine organizations agreed to sponsor the creation and maintenance of the *Annals of Family Medicine* without commercial funding. In order to encourage more research by family physicians, free online access was an important goal.

Methods: *Annals of Family Medicine* publishes original research, methodology, theory, systematic reviews, and essays. The editors are established primary care researchers, and the editorial and publishing staffs include two former science librarians. Bimonthly publication of simultaneous online and print issues began in May 2003, plus occasional supplemental issues sponsored by not-for-profit entities. Free, online public access ("gratis open access") is available with no registration. Content is deposited in PubMed Central after six months. Seven family medicine organizations provide financial support; classified job advertisements add minor additional funds. Commercial advertising is not ac-

cepted, nor are industry-funded supplements. The online journal includes article appendixes such as additional figures, tables, and questionnaires. E-letters replace traditional letters-to-the-editor, and readers' comments are actively encouraged.
Results: The initial group of 7 editors expanded to 13, in response to increased submissions. The reviewer database now includes over 1,500 experts. The number of published article/editorial pages per year increased to approximately 480–490 in 2004 and remains the same, excluding supplemental issues. The sponsoring organizations renewed their funding commitments and the journal remains gratis open access without author fees. Journal content accesses at www.AnnFamMed.org steadily increased and currently average about 160,000 per month. A similar trend appeared in accesses by Internet protocol (IP) address, currently around 35,000 per month. The *Annals of Family Medicine* published 2,426 e-letters from May 30, 2003, to December 31, 2012. Inclusion in MEDLINE and Science Citation Index (SCI) were achieved at the earliest possible dates. Journal metrics are consistently high in the SCI category of General & Internal Medicine; the *Annals of Family Medicine* is ranked first across all scores in the new Primary Health Care category.
Conclusions: A peer-reviewed journal of primary health care research has maintained gratis open access for over a decade, without commercial funding or author charges. Multiple nonprofit organizations continued or increased their cooperative financial support, while allowing full editorial independence. However, the journal relies upon the volunteerism of unpaid reviewers, low (or no) compensation of editors, and a limited staff budget. The financial model of the *Annals of Family Medicine* restricts its publishing capacity and the feasibility of adopting new technologies.

International Conference of Animal Health Information Specialists (ICAHIS)

International Conference of Animal Health Information Specialists 1: Surveying Current One Health Initiatives

Cosponsored by Veterinary Medical Libraries Section

HCC, Level Three, Room 303

1:35 p.m.
Librarians' Contributions to a One Health Course Offered across Three Universities
Mellanye Lackey, Global Public Health Librarian, Health Sciences Library, University of North Carolina–Chapel Hill; **Kristine M. Alpi, AHIP,** Director, William Rand Kenan, Jr. Library of Veterinary Medicine, North Carolina State University–Raleigh
Objectives: To illustrate the contributions that librarians can make to a One Health course through a compendium of case studies. To support the curriculum of a One Health course taught at three universities with three different library systems.
Methods: Two academic health sciences libraries and one veterinary medical library collaborated to support the research needs of a One Health course offered by all three universities. One Health courses are interdisciplinary, crossing departments, schools, and institutions. Providing library support for One Health challenges many traditional library methods and processes. Librarians met the research needs of students from the three different universities, despite licensing restrictions designed solely for each institution. Librarians collaborated to overcome gaps in subject expertise and in the collections of materials at individual institutions. A LibGuide was created to address some of these needs. Additionally, two librarians wrote a chapter for a compendium of case studies detailing how librarians can contribute to One Health Initiatives.
Results: The annual One Medicine symposium (www.onemedicinenc.org) provided another venue for librarians to reconnect with practitioners, researchers, and students interested in One Health. A joint veterinary epidemiology master's of public health program begins fall 2013 (www.sph.unc.edu/images/stories/units/vet_mph/documents/Landing/vet_mph104.pdf), but many interested parties do not engage in academic coursework. Participants receive librarian support and training for using RSS feeds, accessing gray literature. Staying current is facilitated with articles shared via the One Health News Bits' from the North Carolina One Health Collaborative (www.nconehealthcollaborative.weebly.com/news-bits.html).
Conclusions: Library support for One Health activities involves relationship building and networking with diverse individuals interested in One Health. Librarians introduce relevant resources regardless of institutional affiliations. The broad range of potentially influential websites and journal articles across the One Health spectrum, including those outside mainstream media, makes librarians a crucial link to staying current. The essay "Global Sharing of Knowledge Resources: Librarian Support for One Health" published in the forthcoming One Health compendium will raise awareness of librarian support and available One Health resources.

1:51 p.m.
Toward the One Health Philosophy: The Hans Hoheisen Story
Antoinette Lourens, Information Specialist, Jotello F. Soga Library, Faculty of Veterinary Science, University of Pretoria, Pretoria, South Africa
Objectives: To support research at the Hans Hoheisen Wildlife Research Centre (HHWRC), a project was launched to merge its library with the University of Pretoria (UP) Libraries' collections. The project gives researchers at HHWRC, the Hluvukani Animal Clinic, and the Mnisi Community programmes access to the Hans Hoheisen and UP libraries collections and provide opportunities for research in the One Health philosophy.
Methods: The Hans Hoheisen Research Station was opened in July 1983 and at first managed by the Transvaal Provincial Administration, then the Limpopo Provincial Government, and after reopening in August 2010, the Mpumalanga Tourism and Parks Agency and the Faculty of Veterinary Science. Worldwide ecosystems are fragmented by boundaries and fences cut migration routes of animals. It is therefore that we find many protected areas situated along country borders. With many human infectious diseases being zoonoses, it became evident that it was increasingly important to prevent and manage these disease threats. In 2003, UP was asked to become involved in and utilise the HHWRC for research purposes. The university supported this venture and in 2009, a tripartite memorandum of understanding was signed by the UP and the Peace Parks.
Results: With this project the HHWRC Library will now form part of the UP's libraries. It will provide researchers access to a world class collection, which can be used to the fullest in their endeavours to do research at the interface between wildlife, livestock, and humans, in the context of environmental health and in support of the One Health philosophy.
Conclusions: The One Health Platform of the Faculty of Veterinary Science, UP, stands on three legs: undergraduate training and clinical services at Hluvukani Animal Clinic, research and

postgraduate training in the Mnisi Community Programmes, and research and training at the HHWRC. This project will be successful if researchers' and students' from all three areas information needs are satisfied in the processes of teaching, learning, and knowledge creation toward the One Health philosophy.

2:07 p.m.
One Health: It Can Take a Community
Esther Carrigan, AHIP, Associate Dean and Director; **Ana Ugaz, AHIP,** Resources Management Librarian; **Nancy Burford, AHIP,** Veterinary Collections Curator; Medical Sciences Library, Texas A&M University–College Station
Objectives: To inventory the One Health-related events, services, programs, and initiatives of the Medical Sciences Library, Texas A&M Health Science Center, Texas A&M University and its Colleges of Veterinary Medicine and Agriculture and Life Sciences, and the Bryan-College Station community.
Methods: Compile and chronicle library events, services, and programs intended to foster a one health perspective. Survey the Texas A&M Health Science Center, Texas A&M University and its Colleges of Veterinary Medicine and Agriculture and Life Sciences, and the Brazos Valley Partnership to identify and gather data on the one health programs and initiatives already undertaken, and their plans for the future.
Results: Programs, services, and initiatives in support of One Health span much of Texas A&M University. Interdisciplinary initiatives have developed and expanded across the university and the Bryan-College Station community. One Health has been adopted as one of the Texas A&M University strategic "grand challenges" to encourage interdisciplinary collaborations and to enlist the support of external donors to make significant advances in One Health possible. Details and examples of these programs will be presented.
Conclusions: The One Heath initiative has been a catalyst for building collaborations across the university and the surrounding community. Its holistic approach offers wide-ranging opportunities for new partnerships that can take a whole community to accomplish, but can also help bring a community together.

2:23 p.m.
International Cooperation in Support of One Health
Marie Teissier, Information Specialist, Administration, Logistics and Publications Department, World Organisation for Animal Health (OIE), Paris, France
Objectives: By 2050, it is estimated that there will be nine billion people living on the earth. As population densities grow, the incidence of animal-derived diseases in the human population will also grow. The need to control emerging pandemic diseases reemphasizes the need for enhanced collaboration on reducing risks of zoonotic potential, including foodborne diseases and severe animal diseases at their source.
Methods: For zoonoses detection, verification and sharing of information between organisations specialising in human and animal diseases is especially important. "Only by breaking down the barriers among agencies, individuals, specialties and sectors can we unleash the innovation and expertise needed to meet the many serious challenges to the health of people, domestic animals, and wildlife and to the integrity of ecosystems." International cooperation in support of One Health contemplates "a world capable of preventing, detecting, containing, eliminating, and responding to animal and public health risks attributable to zoonoses and animal diseases with an impact on food security through multisectoral cooperation and strong partnerships."
Results: At the international level, One Health involves collaboration between key technical organisations, including mainly the World Organisation for Animal Health (OIE), the Food and Agriculture Organization of the United Nations (FAO), the World Bank, the World Health Organization (WHO), and the United Nations Children's Fund (UNICEF). The FAO/OIE/WHO cooperation, actively holding annual tripartite meetings since the 1990s, grew substantially with the highly pathogenic avian influenza crisis in mid-2005, which led to further developments in the One Health concept: the creation of the OIE/FAO joint worldwide network of expertise on animal influenza (OFFLU), the adoption of joint standards through the three organisations information systems, and the establishment of networks, notably the Global Framework for Progressive Control of Transboundary Animal Diseases (GF-TADs) adopted on May 24, 2004. The Global Early Warning System (GLEWS), officially launched in 2006 is the first OIE/FAO/WHO joint program that formally brings together both human and veterinary public health systems, sharing zoonotic disease outbreak information and epidemiological and risk analysis and delivering early warning messages to the international community on areas at risk of TADs. In 2010, the OIE, FAO, and WHO together developed a tripartite concept note that sets a strategic direction and proposes a long-term basis for international collaboration aimed at coordinating global activities to address health risks at the human-animal-ecosystems interfaces.
Conclusions: Cooperation in support of One Health aims at one goal: preserve our environment and protect the health of all species.

2:39 p.m.
From Farm to Fork toward One Health: Veterinary Curriculum in Finland
Raisa Iivonen, Information Specialist; **Ari Muhonen,** Head; Viikki Campus Library, University of Helsinki, Helsinki, Finland
Objectives: As One Health is the initiative of a various group of health professionals, the question "how to educate the academic specialists to put it into effect" is of the essence. The complexity of the phenomenon implies that each profession has to master its own discipline and be able to understand the problems of the neighbourhood discipline, as well as the experts' need to possess excellent skills of communication and cooperation. In Finland, a member country of the European Union (EU), the basic degree in veterinary medicine is the licentiate in veterinary medicine. This degree requires completion of 360 European credit transfer system (ECTS) units and should take 6 years to complete. The curriculum is tailored to and follows the applicable EU-directives, the national government directives and legislations and the guidelines set by the Bologna Process. The idea of One Health has been embedded in the curriculum over 50 years. This presentation tells how it has been done and what is demanded to keep its quality on the level of the standards given by the European Association of Establishments for Veterinary Education (EAEVE) and other actors.
Methods: The objective of the curriculum is that every veterinarian has those day-1 skills that the legislation requires. In Finland, that means that the faculty has to follow demands from the EU and the Finnish legislation. Municipal and private veterinary services are subject to the Act on Veterinary Service and the subsequent Government Decree on Veterinary Service. The act on practising veterinary medicine lays down the required qualifications, rights, and duties of a veterinary practitioner. This includes, for example, that studies meet inspection techniques and slaugh-

terhouse hygiene before the bachelor's degree. According to the Bologna process the complete curriculum comprises a 3-year bachelor study (bachelor of veterinary science) and a 3-year licentiate study (master's degree).This curriculum results in official certification by the licensing authorities of Finland.
Results: The paper tells also how the university library is involved in teaching the information literacy (IL) to the veterinary students, how the IL program is embedded in the curriculum, and how the liaison librarian system provides both basic library services and research services to the scientific community of veterinary researchers and teachers. As the One Health initiative is integrated in the six-year lasting curriculum ("Farm to Fork" courses) so the IL is integrated in the curriculum and after as lifelong education. The postgraduate studies include, for example, courses called "Expand Your Information Skills: Information Literacy For Doctoral Students."
Conclusions: The work done in the faculty constantly refining the teaching program is a good example how to put into effect ideas such as One Health initiative. It requires a unified vision of what the purpose is of the everyday work of a veterinary practitioner, who in Finland is in charge of environmental hygiene and other matters we may call One Health initiative. The task requires capacities such as communication and collaboration with other authorities and specialists. The academic planning committee merges the different aspects of biomedical research discoveries, public health, and the scientific knowledgebase in the form of academic curriculum to improve medical education and clinical care. This process will help to protect and save millions of lives in our present and future generations.

Program Session 1
Sunday, May 5, 4:30 p.m.–6:00 p.m.

Federal Libraries Section

Evidence-Based Health Policy

Cosponsored by Nursing and Allied Health Resources Section, Translational Sciences Collaboration SIG

HCC, Level Three, Room 305

4:35 p.m.
Assessing Our Value: This Is Our Story Δ
Alicia A. Livinski, Informationist and Biomedical Librarian; **I. Diane Cooper, AHIP,** Informationist; **Bradley Otterson,** Biomedical Librarian; **Nancy Lee Terry,** Informationist; **Anne White-Olson**, Informationist and Biomedical Librarian; NIH Library; **Terrie Wheeler,** Chief, Education Services Branch, Division of Library Services; National Institutes of Health, Bethesda, MD
Objectives: Health sciences librarians in federal agencies provide knowledge-based information to support their agencies' missions. These librarians provide research support to help improve health outcomes, reduce costs, and garner research support. This assessment seeks to address whether the services and information provided, as perceived by our users, impacted their decisions or actions for patient care, policy, administrative, research, or educational work.
Methods: The critical incident technique was used as our methodology. The survey questions were piloted with two respondents from each group served. Beginning in May 2012, each librarian emailed the online survey instrument to their customers after completing a specific information request to ensure the critical incident technique was followed. A specific information request included: document delivery managed by the librarian, literature searches, reference questions, editing and/or formatting of papers, or instruction on searching. The customers were asked to respond based on their assessment of the information received. Our population (n) is the federal agency individuals served by the librarians. This survey is administered to a convenience sample (n) of the people served beginning in May 2012 to when 20% of all total incidents in 2011 (162) is reached.
Results: Data collection is still on-going in early 2013. Data analysis will be completed prior to the meeting in May 2013.
Conclusions: Results and conclusion are still to be determined. These will be available prior to the meeting in May 2013.

4:51 p.m.
Health Professional Information Use: Creating an Evidence Base for the National Institutes of Health (NIH) Public Access Policy Δ
Lauren Maggio, Director, Research and Instruction; **Ryan Steinberg,** Software Developer; Lane Medical Library, School of Medicine; **Laura Moorhead,** Student; **John Willinsky,** Khosla Family Professor; School of Education; Stanford University, Stanford, CA
Objectives: The National Institutes of Health (NIH) public access policy requires all peer-reviewed journal publications resulting from NIH funding be made publicly accessible within a year of publication in PubMed Central (PMC). To assess the policy's impact, benchmark measures of current health professional use of this research are needed. This study demonstrates a library's position to collect these measures and impact policy.
Methods: In 2012, we conducted a mixed methods study combining library log data and physician interviews to examine health professionals' use of research evidence at Stanford University Medical Center (SUMC). This research focused on use of UpToDate and PubMed, two major information resources and research evidence gateways. At SUMC, traffic to these two resources was monitored throughout 2011, allowing the collection and analysis of the frequency of resource use, publication types used, and currency of information consulted. These data informed follow-up, semi-structured interviews with physicians at two academic medical centers, SUMC and University Medical Center Utrecht in the Netherlands. Twenty-two participants were interviewed and asked to describe recent use of information to answer clinical question. Interview transcripts were iteratively coded resulting in themes that were applied to all transcripts. Both qualitative and quantitative data were then examined in the context of the public access policy, medical education, and evidence-based practice.
Results: In 2011, SUMC personnel accessed PubMed (38,085) and UpToDate (110,336), for a total of 148,421 visits resulting in 81,851 article views (on average 16.2 article views per health personnel). Eighty-three percent (68,074) of accessed articles were published in the last 10 years, and 20% (16,187) were published in 2011. Fifty-seven publication types and 4,794 journal titles were accessed. Interviews demonstrated participants answer clinical questions using UpToDate and PubMed and using both resources as gateways to primary literature. Participants characterized UpToDate as efficient, user-friendly, current, and relevant for accessing background information or logistical look ups but challenged its overall validity. PubMed was praised for providing in-depth, patient-centered information but criticized for present-

ing too much information, being difficult to search, and frequently failing to link with full text. Participants requested additional information skills training and advocated for the development of benchmarks on which to gauge search skills.
Conclusion: The primary literature plays a significant role in clinical care. While further studies are needed, this preliminary finding speaks to the value of the NIH public access policy and the need for medical librarians and educators to prepare health personnel for increasing public access to medical research.

5:07 p.m.
The Core or Not-so-Core Clinical Journals Subset: Data-Driven Evidence on Clinical Utility Δ
Michele Klein-Fedyshin, AHIP, Liaison Librarian, Falk Library; **Andrea M. Ketchum, AHIP,** Reference Librarian; Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA
Objective: To compare the physician-approved literature used for morning report in the internal medicine department with journals listed in the PubMed Core Clinical Journals/AIM subset in order to determine the core journals subset's suitability for contemporary clinical searching and patient-centric decision-making.
Methods: An EndNote(X4) library was populated with references cited in the morning report blog from October 2007–January 2012 and exported to a Microsoft Excel (2007) file, listing source characteristics including status as a National Library of Medicine (NLM)-designated Core Clinical Journal, ISI Journal Citation Reports impact factor, and the medical subjects represented by the journal using broad Medical Subject Headings (MeSH) terms. Bradford's Law of Scattering was applied to rank the journals and create a new "Clinical Impact" factor or ranking for the journals used to answer the patient-related questions in morning report. This analysis compares the over 600 results used for morning report with the Core Clinical Journals subset as well as listings of other high-impact medical journals, article currency, and medical subjects represented in these lists to determine which journals are important for clinical decision-making by rank. Additionally, calculation of the recall (sensitivity) and precision of the core clinical morning report journal set is derived and contrasted to the non-core journal set.
Results: Analysis shows 30% of clinically used articles are from the Core Clinical Journals/AIM subset and 16% of the journals represented are core titles. When Bradford-ranked, 27 morning report journals provide the top-tier entries, with 59% coming from core titles. Compared with ISI's top 20 internal/general medicine titles, only 7 titles overlap.
Conclusions: The low percentage usage of Core Clinical Journals indicates less relevance for hospital-based clinical care. The divergence from high-impact medicine titles of ISI suggests that clinically valuable journals differ from academically important titles. With few subjects demonstrating high recall or precision, the Core Clinical Journals are of limited value for hospital-based morning report patient care decision making.

5:23 p.m.
Best Practice for Questions Regarding Clinical Practices Δ
Kefeng (Maylene) Qiu, Evidence-Based Healthcare and Clinical Liaison Librarian; **Ginny Brown,** Library Intern; **Kyan Chuong,** Biomedical Library Intern; Biomedical Library, University of Pennsylvania–Philadelphia; **Ryan Geoffrey Cohen,** Reference Librarian, Reference and Web Services, National Library of Medicine, Bethesda, MD; **Bethany Myers,** Instructional Technologies Intern; **Anne K. Seymour,** Associate Director; Biomedical Library, University of Pennsylvania–Philadelphia; **Craig A. Umscheid,** Assistant Professor, Medicine and Director, Center for Evidence-Based Practice, University of Pennsylvania Health System–Philadelphia
Objectives: University of Pennsylvania librarians work as team members at the University of Pennsylvania Health System (UPHS) Center for Evidence-based Practice (CEP), which is dedicated to translating the best medical evidence into clinical practice locally. CEP receives requests from clinical and administrative leaders regularly to help UPHS identify "best practices" for questions regarding clinical practices. The objective of this paper is to describe the development of an efficient approach to identify best practices published in the medical literature.
Methods: Literature searches in Ovid MEDLINE, Embase, CINAHL and related organizations' websites were executed to help define best practices. Retrieved articles were screened, and keywords from selected documents were analyzed to identify how the concept of best practices was defined and used in the literature. Based on this analysis, a recommended definition of best practice was adopted for search filter development. To efficiently develop an effective MEDLINE search filter for best practices, we limited the scope of the analysis to one discipline. Because of CEP's work in infectious diseases, guidelines in the category of "Bacterial Infections and Mycoses" from the National Guideline Clearinghouse were selected for analysis. From the PubMed records for these guidelines, librarians identified several key data elements, including high-frequency terms and journals with the most frequent guideline citations, to facilitate development of the filter. A gold standard was then developed to measure the performance of the filter in terms of its sensitivity, specificity, precision, and the number needed to read. The gold standard was developed using a MEDLINE search of infectious diseases articles published between January 2008 and December 2009 and hand searching of high-impact infectious diseases journals published during the same time period.
Results: The development of our gold standard dataset and the comparison of our filter versus the gold standard are still in progress. Currently, we have screened more than 13,000 journal articles to develop our gold standard, with more than 20,000 additional journal articles still to be screened. Our final results including the best practice search filter and its performance characteristics will be presented at One Health in May.
Conclusions: The conclusions will be presented at One Health.

5:39 p.m.
Partnering for Value: Library and Information Science Professionals: Key Players on the Federal Health Information Technology Team Δ
Jamie Stevenson, Principal Investigator, Federal Library and Information Network (FEDLINK), Library of Congress, Washington, DC
Objectives: To identify opportunities for federal library and information science (LIS) professionals to support health care, its practitioners, and health information technology (HIT) initiatives across the federal enterprise. Opportunities were aligned with goals from the Office of the National Coordinator (ONC) for Health Information Technology (IT) Federal Health IT Strategic Plan.
Methods: In 2012, a federal interagency Health Information Technology Advisory Council (HITAC) of leaders from federal agencies, academia, and medical centers was convened to increase the LIS professional's role in health care improvement.

Council work was supported by a literature review that identified shared opportunities in HIT and libraries, and a thorough review of the ONC plan to leverage HIT to improve care. High yield opportunities that best supported the federal agenda were selected to guide future efforts. Next, as a framework, key leaders in LIS were tapped to develop a list of LIS professional roles currently undertaken or that could be adopted, along with potential health care partners. As a culmination of this data gathering, a mixed method survey approach was used to identify federal and non-governmental individuals employed in these roles and potential partnerships.
Results: Findings will be shared during the session.
Conclusions: Significance and future directions will be shared during the session.

Medical Informatics Section

Linked Data: Lessons Learned from International Bioinformatics Hubs

Cosponsored by Medical Library Education Section, Molecular Biology and Genomics SIG

HCC, Level Two, Room 206

4:35 p.m.
An Introduction to the Semantic Web and Linked Open Data
Kristi L. Holmes, Bioinformaticist, Bernard Becker Medical Library, School of Medicine, Washington University in St. Louis, St. Louis, MO; **Layne Johnson,** Translational Science Information Specialist, Health Sciences Libraries, University of Minnesota–Minneapolis
Objectives: Are acronyms like RDF, SPARQL, and OWL throwing you for a loop? Are you worried that "triples," "ontologies," and the "linked open data cloud" will leave you in the dust? Have no fear! This presentation will offer a friendly introduction to the semantic web, while highlighting projects and initiatives relevant to today's medical libraries.
Methods: The semantic web is a machine-readable global network of highly structured linked concepts. This structured approach to data presents a lot of exciting opportunities for libraries as semantic web-based projects become more popular across a wide variety of disciplines. The session will provide a basic introduction to the topic and highlight different perspectives from different projects in this space. We will show *why* this technology is being used in so many areas and demonstrate the benefits of linked data, especially in areas related to libraries. Finally, we will showcase how these data can be leveraged on a more broad scale for reuse for visualizations, research discovery, and more.

4:55 p.m.
Linked Open Data and Biomedical Research: A Survey of Current International Efforts
Kristi L. Holmes, Bioinformaticist, Bernard Becker Medical Library, School of Medicine, Washington University in St. Louis, St. Louis, MO; **Layne Johnson,** Translational Science Information Specialist, Health Sciences Libraries, University of Minnesota–Minneapolis
Objectives: Semantic web standards and richly structured linked open data are playing an increasingly significant role in the research ecosystem. There are a number of efforts around the world that leverage these standards and data for activities that enhance discovery and promote a higher-order application of available information.
Methods: There are a number of major international projects leveraging semantic web standards and linked open data principles to provide more meaningful experience in terms of both experience as well as data use and reuse. This presentation will offer a survey of available triple stores and highlight some of the most significant efforts around the globe, offering attendees practical information about these efforts in the context of their own work. Among the several initiatives discussed will be: CTSAconnect and the integrated semantic framework project for the Clinical and Translational Science Award (CTSA) Consortium; OpenPHACTS, a major European semantic web-based pharmacological initiative with partners across academia and industry; and research networking systems such as VIVO, the National Institutes of Health (NIH)-funded researcher networking platform that has been successfully implemented in over thirty countries and can now be extended to give researchers a way to describe and make information available about their research and clinical datasets.
Results and Conclusions: Semantic web standards and technologies are becoming a critical piece of the research puzzle in institutions, organizations, and agencies, worldwide. The rich data afforded by systems that leverage semantic standards can enable new level of tools and work flows to improve science and facilitate research across disciplinary and organizational boundaries.

5:15 p.m.
Assessment of a User-Centered Ontology to Support the Selection of and Linking among Bioinformatics Resources Δ
Joan C. Bartlett, Associate Professor, School of Information Studies, McGill University, Montreal, QC, Canada
Objectives: One of the challenges in both selecting bioinformatics resources and linking among them is matching a resource to the preferences of the user. The objectives of this study are to evaluate a user-centered ontology annotating bioinformatics resources and to assess both its usability and utility in the selection of a resource to match the user's needs and preferences.
Methods: The research uses a test set of bioinformatics resources annotated according to an ontology of characteristics previously identified by users in their selection of resources (e.g., type of interface, operating platform, functionality); the experimental system uses the annotations to filter the list of resources. Following a within-subjects experimental design, participants search for bioinformatics resources to support both hypothetical and actual research tasks. In some cases, they have access to the annotation-based filters; in others, they only have an un-annotated list of tools. Outcome measures include the time taken to select a resource, number of steps taken, and relevance of the selected resource to the task, as well as the participants' assessment of the usability and utility of the annotation system. Follow-up semi-structured interviews further explore the participants' experience using the test system.

5:35 p.m.
The "Canary Database": Assembling Evidence for One Health Linkages between Human, Animal, and Environmental Health Δ
Peter Rabinowitz, Associate Professor, Medicine; **Sally Vegso,** Biostatistician; School of Medicine, Yale University, New Haven, CT; **Daniel Chudnov,** Librarian, Gelman Library, George Washington University, Washington, DC; **Lynda Odofin,** Research Associate, Occupational and Environmental Medicine Program, Yale University, New Haven, CT; **Matthew Scotch,** Assistant

Professor, Department of Biomedical Informatics, Arizona State University–Scottsdale; **Matthew Wilcox,** Public Health Librarian and Director, Academic Technology, School of Public Health, Yale University, New Haven, CT
Objectives: To collate and curate evidence in the biomedical literature linking host-environment interactions in humans, domestic animals, and wildlife in a One Health model.
Methods: We have developed standard algorithms to collect and curate studies of multiple species of animals as "sentinels" of human environmental health hazards. A trained curator has added metadata to the electronic bibliographic citation into a publicly accessible database (www.canarydatabase.org). Curation adds additional information to the study report such as exposure-effect relationships, shared exposures between human and non-human animals, and linkage between animal and human health outcomes. Additional algorithms allow users of the database to view summaries of human-animal data relationships for specific environmental exposures. Users may also create their own searches to find trends within the literature. Further planned developments to the database include automation of the curation process and extension of the process to a broader range of connections between the knowledge spheres of human, animal, and environmental health.
Results: The Canary Database has been online since 2004 and contains several thousand curated records. The database provides users with a method for summarizing the sentinel relationships between animal and humans for particular exposures. The summary screens also weight the strength of the evidence for particular linkages between human and animal host environment responses. A number of review papers of animals as sentinels of environmental health hazards have been published based on analysis of the database. These point out the data gaps in linkages between human, animal, and environmental health.
Conclusions: The Canary Database points out solutions and challenges to assembling knowledge about naturally occurring animal models of host-environment interactions that could inform human health in a One Health model. Further planned developments to the database include an automation of the curation process and extension of the process to a broader range of connections between the knowledge spheres of human, animal, and environmental health.

Medical Library Education Section

New Voices in an Interdependent World

Cosponsored by Research Section, New Members SIG

HCC, Level Three, Room 303

4:35 p.m.
The Library's Role in E-Science Programs in Research Universities Δ
Mary Piorun, AHIP, Associate Director, Lamar Soutter Library, Medical School, University of Massachusetts–Worcester
Objectives: Many libraries have skills in collaboration, outreach, and knowledge management from which to become a contributing partner in institutional-level e-science initiatives. This study explores how and why research libraries became engaged in e-science, the changes that have occurred in the library in order to provide e-science services and programs, and the role of leadership in bringing about those changes.
Methods: For this study, a multi-method approach to data collection was employed. This includes gathering and analyzing relevant documentation and performing a variety of interview types, such as narrative inquiry, semi-structured interviews, and focus group interviews. Relevant documents offered additional information on the context in which the institution and the library are operating. Using narrative inquiry, the investigator asked people to recall a sequence of major events associated with e-science and connect one of the most critical to study objectives. The semi-structured interviews provided insight on how e-science has been implemented in the library, and focus group interviews gave an opportunity for those in the library providing e-science services to reflect on their experience and the changes that have occurred in the library.
Results: The case study sites exhibited different responses to supporting e-science at the university level but shared several themes in common. Library administrators used strategic visioning and planning, communication, and employee empowerment as organizational change strategies. Library staff responded by becoming involved in data management education, data policy meetings, partnering on research projects, and development of new consulting services. Librarians indicated that to become involved they were required to engage in self-education and take a new attitude to match the new environment. It was a challenge to overcome faculty resistance, but there were new opportunities to reach out to researchers and administrator. The National Science Foundation data management requirement and individual initiative were the major facilitators to library involvement; whereas, limited resources was the major barrier.
Conclusions: Library staff and administrators continued to be optimistic about their libraries' ability to support e-science and were implementing new and enhanced services. They believed that innovative thinking paired with the unique skill set of the librarian has created a rare opportunity for the library to assume a critical role at the institutional level.

4:55 p.m.
Where in the World Are the Health Information Graduates? Δ
Amanda McLane, Student, Pratt Institute, New York, NY; **Helen-Ann Brown Epstein, AHIP,** Clinical Librarian, Weill Cornell Medical Library, Weill Cornell Medical College, New York, NY
Objectives: To assess the current employment and practical application of acquired health information knowledge of graduates who participated in the health information concentration of the school of information and library science (SILS).
Methods: A follow-up survey was developed and approved by the institutional review board (IRB) for distribution to SILS graduates who participated in the health information concentration. Questions assessed details about graduates' current employment and previous roles, current use of health information knowledge, specific examples of knowledge utilization, recommendations for additions or changes to the program curriculum, and advice for current students. The survey also provided ample opportunity for free text response to elicit further feedback. Responses were tabulated and analyzed using univariate and multivariate statistical tests. Summarized results will be discussed with the program dean to inform curriculum development and future initiatives at the school. With permission, graduates' information will also be stored in a centralized directory for networking requests and future studies.

5:15 p.m.
What Happened after We Left? Qualitative Program Evaluation as a Tool for Improving Teaching and Learning Δ

Donna R. Berryman, Assistant Director, Education and Information Services, Edward G. Miner Library, University of Rochester Medical Center, Rochester, NY
Objectives: Qualitative program evaluation was used to better understand the effect of our library's educational intervention for first-year medical students. The two questions that began the program evaluation were: What are the information management needs of first-year medical students as seen by students and faculty? How does our educational program address those needs?
Methods: Focus groups were conducted with 20% of the 1st-year class in the medical school. One additional focus group of medical students from the 2nd-4th years was convened. Five faculty members were interviewed. Focus groups and interviews were recorded and transcribed, and the data were coded for emerging themes.
Results: There was general agreement between faculty and students that first-year medical students rely heavily on their course syllabi and textbooks. Students, however, felt strongly that additional resources, such as UpToDate and Wikipedia, were also useful in the first year. There was widespread confusion among the students as to how to locate books in the library (both print and electronic). Three very broad themes emerged from the data: (1) timing of learning, (2) image and identity, and (3) time itself. Timing of learning includes lack of recall (forgetting), lack of application, and context or relevance. Image and identity brought together the following subthemes: 20th century faculty teaching 21st century students, learning to be doctors, library and librarian bias, student belief that they know it all, and ask Dr. Google. Finally, time refers to both student and faculty schedules. It seems there is no time to commit to learning information management skills, skills that could help the students be more efficient and save them time.
Conclusions: What was learned from the data was used to strengthen and improve the educational program and enhance the learning opportunity for students. Modifications were made to the instructional program: the curriculum was modified and training for librarians has expanded. This research provided the library with a much better understanding of how the students and faculty perceived the library's instructional program for the first-year medical students, but it did much more than that. It provided a way to better understand how students think about the library, how they go about finding information, how they view their faculty, and how their faculty view them. Most importantly, it gave the library insight into how to interact more effectively with the students.

5:35 p.m.
A Journey through Medical Library Education: 1973–2013
Ana D. Cleveland, AHIP, Regents Professor and Director, Health Informatics Program; **Jodi L. Philbrick,** Course Coordinator, Health Informatics Program; College of Information, University of North Texas–Denton
Description: The authors will provide a brief historical overview of medical library education over the past forty years, 1973 to present. The nature and types of library and information sciences programs with courses in medical librarianship will be discussed along with a profile of the educators in the field. Trends in medical library education will be presented. In addition, the authors will discuss how the Medical Library Education Section has been active in promoting the education of future health information professionals. The role of the Medical Library Association and the National Library of Medicine in medical library education will be highlighted.

Pharmacy and Drug Information Section

Around the World in Sixty Minutes: A Fast-Paced Primer on One Health

Cosponsored by International Cooperation Section

HCC, Level Three, Room 309

4:35 p.m.
One Health: A Concept for the 21st Century
Laura H. Kahn, Research Scholar, Program on Science and Global Security, Princeton University, Princeton, NJ
Description: Recognizing that human, animal, and environmental health are linked, One Health promotes interdisciplinary communication and collaboration among different professionals. One Health encompasses many areas including infectious and chronic diseases, global sustainability, and environmental health. This session will discuss a brief history of One Health, the current One Health movement, and challenges to implementing the concept. A few key One Health websites and resources will be highlighted.

5:01 p.m.
Challenges to Health Sciences Information Professionals in Supporting One Health Curriculum Development and Implementation
Joann M. Lindenmayer, Associate Professor, Public Health, and Director, DVM-MPH Track, Infectious Disease and Global Health; **Betsy Like,** Library Manager, Webster Family Library; Cummings School of Veterinary Medicine, Tufts University, North Grafton, MA; **Gretchen Kaufman,** Assistant Director, Paul G. Allen School for Global Animal Health, Washington State University–Pullman
Objective: To describe challenges health sciences information (HSI) professionals have encountered supporting faculty and students engaged in One Health (OH) teaching and learning and demonstrate the value of providing integrated OH resources.
Introduction: The OH concept recognizes that human, animal, and environmental health share complex etiologies; it also encourages the development of balanced solutions to complex health threats. Academic health specialization has led to the establishment of disciplinary silos that create barriers to resource sharing and academic collaboration required for OH understanding and application.
Methods: Several Tufts University curricular initiatives have incorporated the OH concept, including the provost's university seminars, which foster interdisciplinary inquiry among Tufts schools and colleges, the conservation medicine master's degree program that trains students to develop and apply health management practices that protect and sustain ecosystems essential to animal and human health, and the doctor of veterinary medicine-master's of public health (DVM-MPH) curricular track, which recognizes disciplinary strengths but emphasizes the codependent nature of human and animal health. HSI professionals have worked alongside faculty and students to develop and implement these initiatives and support them with technology-based tools.
Results: The OH concept is open to wide interpretation but has most often been applied to zoonotic disease prevention and control. The interdisciplinary (and broadly defined) nature of OH makes it difficult to ask clear and concise scientific questions and locate direct answers from traditional resources and databases. Interpretation and application of identical terminology often differs by discipline, leading to difficulties in communication, confusion, and a paucity of published literature available to guide the academician, clinician, student, or health informa-

tion specialist interested in developing and implementing an OH curriculum. Resources may be located in diverse fields; academicians, clinicians, and information specialists are rarely trained to work across all of these fields. Disparities in resources among disciplines may favor a curricular emphasis on human health to the exclusion of animal and environmental health. Individuals seeking to develop OH curricula must be aware of this potential source of bias and seek to counterbalance it.
Conclusions: HSI professionals will play increasingly important roles in bridging disciplinary silos by collaborating, evaluating, and building collections and resources that support OH curricula. Awareness of OH and its complexities is a prerequisite to fulfilling these roles.

5:28 p.m.
Around the World: Unraveling the Web of One Health
Barbara Hamel, Collections and Information Services Librarian, Steenbock Memorial Library, University of Wisconsin–Madison; **Kate M. Anderson,** Head, Zalk Veterinary Medical Library, University of Missouri–Columbia
Description: One Health can be defined several different ways, from the narrow paradigm of zoonotic diseases between man and animals to the holistic paradigm that recognizes the interrelationships and interdependence of human health, animal health, and the health of our ecosystems and planet. The definition varies across communities, professions, and institutions, but consistent across all definitions is the principle that we are all in this together. Information sharing and knowledge management principles play an important role in this interdisciplinary endeavor. This team of librarians will provide a demonstration of key One Health websites. These will cover One Health conceptually, as well as to provide glimpses of how it is being implemented in practice, in education, and in librarianship. Although international in scope, the primary focus will be on One Health in the United States.

Pharmacy and Drug Information Section and Leadership and Management Section

Enabling and Enriching Transnational and Interprofessional Collaboration

Cosponsored by Library Marketing SIG

HCC, Level Three, Room 310

4:35 p.m.
First among Equals: Librarians as Leaders in Interdisciplinary Projects
Toni Hoberecht, Reference and Education Services Librarian; **Lynn Yeager, AHIP,** Coordinator, Education and Outreach; **Junie C. Janzen, AHIP,** Technical Services Librarian; Schusterman Library, University of Oklahoma–Tulsa
Objectives: Librarians in a medical and academic library serving a small campus hosting interdisciplinary programs are encouraged to engage in innovative and unique partnerships with campus faculty and researchers. Three projects highlighting uncommon librarian collaboration and leadership in these partnerships are described.
Methods: In the first project, a librarian participated as a qualitative researcher in a wide-ranging community-based participatory research project involving the medical school, the school of social work, and the department of architecture and urban design. The first paper publishing results of this collaborative effort was authored by the librarian. The second project involved a librarian's role in a meta-analysis for ethics themes in the general pediatrics literature, which resulted in a poster presentation of the results. In the third project, a librarian led the use of open conference systems for the campus's yearly Research Forum. The librarian served as web editor and technical support for this campus-wide project, which included the electronic processing of abstracts and coordinating the review of those abstracts by faculty. In all three collaborations, librarians took a lead role in advancing partnerships outcomes.
Results: In addition to a contributed paper, a poster, video displays, several presentations describing the projects, and additional collaborations are currently underway. Data from the community-based participatory research project have led to the proposal of additional hypotheses and invited publications, and fostered innovative ways to work with this substantial amount of qualitative data. The librarian who worked on the pediatrics meta-analysis has now been invited to participate in a similar project with faculty in the school of allied health. Use of open conference systems technology to support the Research Forum is now entering its fourth year, and has been expanded to include a separate instance for an annual clinical vignette session.
Conclusions: These three projects and other nontraditional collaborations have increased the visibility of the library across campus and built new working relationships with faculty. They not only promote the research process generally, but also offer opportunities for meaningful library instruction outside of the usual formal settings. Overall, these projects have highlighted the impact that the library—and the librarians—offer to the unique campus environment.

4:55 p.m.
Using Enterprise Data to Foster Researcher Mentoring and Collaboration Δ
Theodora A. Bakker, Biomedical Terminology Manager, NYU Health Sciences Libraries, New York University Langone Medical Center–New York; **Alisa Surkis,** Translational Science Librarian; **Joey Nicholson,** Education and Curriculum Librarian; **Neil Rambo,** Director; **Stuart Spore,** Associate Director, Systems and Resources; NYU Health Sciences Libraries, New York University–New York
Objectives: The New York University (NYU) Health Sciences Libraries partnered with groups throughout the medical center to centralize enterprise-wide data about faculty and students to be used in tools that foster researcher collaboration, connect students with mentors, and enable faculty to maintain a centralized base for their academic output. Using the enterprise data warehouse and executive leadership support, the library is at the center of this effort.
Methods: The library's division of knowledge informatics partnered with education and research informatics groups, medical education, information technology, and medical center leadership to analyze faculty data. This group looked at existing data, source systems, data needs, and functional requirements for faculty data. The existing data were collected in systems across the medical center, with the same data often manually entered in multiple systems. Data use was similarly inefficient, with systems falling short of their full potential by not making use of the range of available data. These interdisciplinary groups created interfaces between sources and the enterprise data warehouse. Use of the data in tools enhances overall systems accuracy by centralizing data input, while also allowing leadership to examine faculty output, students to find mentors, researchers to find collaborators, and faculty to prepare for tenure submission.

Results: The interdisciplinary teams have achieved the greatest level of success around centralizing the publications output of the medical center faculty and deploying a tool to help medical students track their work with mentors. The publication data are used by many other groups including the existing researcher collaboration tool, the faculty biosketches, and looking at collaboration networks. The tool developed to track student-mentor projects is currently contributing enterprise data around faculty and student mentoring efforts, and phase two of the tool will use data about faculty department and research activities. These successes have prompted other groups, such as sponsored programs, to begin participating in efforts to centralize and use enterprise data.
Conclusions: Creating interfaces between systems is a critical component of the larger task of gaining buy-in on contributing to and using centralized data. These interfaces establish the value of enterprise data by increasing the consistency of the presentation of data, improving the accuracy, and allowing for the establishment of more automated workflows that supports greater transparency.

5:15 p.m.
Interdisciplinary and Interinstitutional Collaborations: Opportunities and Challenges Δ
Jennifer A. Lyon, AHIP, Clinical Research Librarian; **Mary Edwards, AHIP,** Distance Learning and Liaison Librarian; Biomedical and Health Information Services, Health Science Center Libraries, University of Florida–Gainesville; **Michele Tennant, AHIP,** Assistant Director, Biomedical and Health Information Services, and Bioinformatics Librarian, Health Science Center Libraries and UF Genetics Institute, University of Florida–Gainesville; **Linda C. Butson, AHIP,** Consumer Health and Community Outreach Librarian, Biomedical and Health Information Services, Health Science Center Libraries, University of Florida–Gainesville; **Casey B. White,** Associate Dean, Medical Education, Research and Instruction, School of Medicine, University of Virginia–Charlottesville; **Hannah F. Norton, AHIP,** Reference and Liaison Librarian; **Rolando Garcia-Milian, AHIP,** Basic Biomedical Sciences Librarian and Liaison; Biomedical and Health Information Services, Health Science Center Libraries, University of Florida–Gainesville
Objectives: Medical librarians are forming more complex and interdependent partnerships with interdisciplinary colleagues by embedding into professional teams within and across institutions. Librarians at the University of Florida's Health Science Center Libraries (HSCL) have participated in several such collaborations. The focus of this paper is to reflectively examine the challenges, lessons learned, and opportunities experienced in these professional partnerships.
Methods: Members of several teams with embedded HSCL librarians reflected upon interprofessional and cross-institutional projects that have been completed or are ongoing. Themes for reflection included how the opportunities arose, problems encountered, resolutions found, and project results, as well as the purposes of the collaborations and the various disciplines of team members. Examples include collaborating with medical educators on a systematic literature review manuscript and a textbook chapter, studying educational practices for undergraduate genetics students, working with health literacy and medical specialists to provide patient education services in internal medicine clinics, collaborating with data center experts to coordinate and develop services, and working with academic and clinical colleagues on gender or sex difference research awareness.
Results: Opportunities to participate in interprofessional and/or cross-institutional teams developed out of existing liaison relationships or other interactions that provided positive evidence of librarians' skills and expertise. Such projects were most successful when undertaken following careful planning, although librarians should be ready to seize unexpected opportunities. Nonetheless, clear statements of purpose, level of involvement, time, and work effort required are best established at the outset. Important considerations include methods of group contact, scheduling of meetings and deadlines, sharing of data and project materials, choices of software, keeping of careful records, and clear articulation of responsibilities and expectations. These are even more vital for cross-institutional collaborations in which distance and differences in access to electronic resources make collaboration more difficult. Conference calls, telecommunication, and virtual meeting software, combined with web-based document sharing sites, can facilitate the projects; decisions on which systems to use should be made up-front and remain consistent. Flexibility is vital, but deadlines should be established and enforced by the team leader whenever feasible. Regular group meetings, in person or via technology, provide continuity and motivation.
Conclusion: Collaboration on projects like these allow librarians to take advantage of specific expertise and learn how that expertise enhances professional projects and research investigations. There is enormous potential for these partnerships to add depth and breadth to the projects they undertake. Understanding team goals, formation, leadership, and expectations is vital to achieving desired outcomes.

5:35 p.m.
Consenting Adults: An Interdisciplinary Approach to Improving Patient Care via the Informed Consent Process
Margo Coletti, AHIP, Director, Knowledge Services, Beth Israel Deaconess Medical Center, Boston, MA
Objectives: To improve patient care at a teaching and research hospital by creating a patient-centered informed consent process.
Methods: Originally aiming to improve the readability of informed consent documents, the author contacted an attorney from hospital counsel to collaborate on a workshop for informed consent writers. The project quickly grew in both concept and team membership, with every added team member suggesting another discipline to involve. The team grew to include legal, risk management, community affairs, interpreter services, human subject protection office, and the institutional review board. The group broadened the scope of the instruction to a comprehensive approach with the objective of improving patient care through the informed consent process.
Results: The end product, now in its second year, is a quarterly half-day workshop called "Consenting Adults: An Informed Consent Workshop." The workshop is designed for anyone involved with the informed consent process: clinicians, researchers, technicians, nurses, physician assistants, and so on. It covers the components of the informed consent process, legal and ethical issues, health literacy, plain language principles, assessment of patient comprehension, and consenting persons with limited English proficiency. The workshop, Cosponsored by the author's department, knowledge services, and office of human research protection, is offered for both continuing medical education (CME) category 1 risk management credits and nursing contact hours.
Conclusions: What began as a modest project to improve the readability of informed consent documents has grown into a multidisciplinary workshop that reaches all medical center staff

who are involved in the informed consent process. This workshop addresses both patient safety and risk management and is designed to reach both clinicians and researchers. By broadening the scope of the project and increasing the number of planners, the author and her department have increased visibility throughout the structure of the organization and have had a direct impact on patient care.

Public Health/Health Administration Section

The Role of Librarians/Informationists in the Systematic Review

Cosponsored by Informationist SIG

HCC, Level Three, Room 311

4:35 p.m.

Systematic Review Reporting Quality in General Medical Journals: The Influence of Librarian Authorship Δ

Melissa Rethlefsen, AHIP, Education Technology Librarian, Learning Resource Center; **Ann Farrell,** Librarian, Mayo Clinic Libraries; Mayo Clinic, Rochester, MN; **Leah C. Osterhaus Trzasko,** Health Science Librarian, Health Science Library, Mayo Clinic Health System, La Crosse, WI

Objectives: To determine whether librarians positively contribute to the quality of systematic reviews published in general medical journals.

Methods: In 2011, the Institute of Medicine formally recommended including librarians in the literature review portion of conducting systematic reviews. It is not clear, however, whether librarians are included in the systematic review process for articles published in general medical journals or whether their participation improves the literature review process and reporting. All published systematic reviews in the top five highest impact general medical journals from 2008–2012 were identified. Each article was categorized in one of three categories: a librarian author, acknowledgment of a librarian's contribution, or no or indeterminate librarian contribution. The literature search strategies were analyzed independently by each researcher for standard characteristics of literature search quality and reproducibility. Each article was scored according to a checklist of these characteristics. Article quality metrics were compared across the three groups to assess whether librarian authorship or librarian participation contributed positively to quality.

Results: In August 2012, 1,379 potential systematic reviews were identified from the top 5 medical journals publishing systematic reviews (*BMJ, Annals of Internal Medicine, JAMA, PLoS Medicine,* and *Lancet*); 596 of those were confirmed as systematic reviews and evaluated by 2 independent reviewers per article. In February 2012, all remaining systematic reviews published in 2012 will be similarly identified and analyzed.

Conclusions: This research is not yet complete.

4:55 p.m.

A Collaborative Approach to Systematic Review and Meta-Analysis Instruction

Mark P. MacEachern, Liaison Services Librarian; **Whitney Townsend,** Liaison Services Librarian and Coordinator, Health Sciences Executive Research Service; Taubman Health Sciences Library, University of Michigan–Ann Arbor

Objectives: To describe a collaborative approach for teaching medical students and researchers the search process and requirements for systematic reviews (SRs) and meta-analyses.

Methods: SRs are complex, time-consuming projects that require extensive searching, structured critical appraisal, and detailed analysis. Given that the searches are one piece of a much larger SR context, the authors have adopted and embraced a collaborative approach to SR search instruction. In this collaboration, librarians teach all search-related components, while experts in other fields handle statistics, critical appraisal, clinical relevance, and so on. Two local examples will be discussed: a graduate-level public health meta-analysis course and a third-year clerkship session in undergraduate medical education. This paper will further discuss how collaboration of this kind can (a) raise awareness about the role of librarians in SR projects, (b) illustrate how to improve the methodological quality of locally produced SRs, and (c) increase the understanding of the evaluation and use of SRs in clinical settings.

5:15 p.m.

An Interdisciplinary Collaboration to Teach Systematic Review Methods

Claire Twose, Associate Director, Public Health and Basic Science Informationist Services; **Lori Rosman,** Public Health Informationist; **Peggy Gross**, Public Health Informationist; **Donna D. Hesson,** Public Health Informationist; **Julie M. Adamo,** Associate Fellow, National Library of Medicine; Welch Medical Library, Johns Hopkins University, Baltimore, MD; **Tianjing Li,** Assistant Scientist; **Ian Saldanha,** PhD Student, Epidemiology; **Swaroop S. Vedula; Kay Dickersin,** Professor and Director, Center for Clinical Trials, and Director, US Cochrane Center; Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD

Objectives: Informationists collaborate with school of public health faculty and teaching assistants to co-teach an eight-week systematic review and meta-analysis course. This relationship began in 1994, and informationists now support the "searching and managing search results" section of the course. We will describe the evolution of this collaboration and present the curriculum structure and extensive materials developed for this course section.

Methods: This annual course was given to fifty-five master's and doctorate students in 2012. Students enter with a wide range of clinical or public health backgrounds. The course is unique in that it requires students to complete all steps of a systematic review: framing the question, conducting a comprehensive literature search, appraising and synthesizing the data, and performing meta-analysis. Some students submit these reviews for publication. Informationists bring solid systematic review experience to the classroom, developed over the eight-year teaching collaboration, through consultation and participation in numerous systematic reviews, and from training and attendance at related classes and professional meetings. We will describe informationists' participation in the planning, development, and assessment of the course; provide sample lecture slides, assignments, and handout materials; and discuss the benefits and challenges of informationists' participation in this kind of collaboration.

5:35 p.m.

What Happens after: Outcomes of a Systematic Review Course Δ

Linda M. Hartman, AHIP, Reference Librarian; **Barbara Folb,** Public Health Informationist; **Mary L. Klem,** Reference Librarian; **Melissa A. Ratajeski, AHIP,** Reference Librarian; Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA; **Ahlam Saleh,** Information Services Librarian, Arizona

Health Sciences Library, University of Arizona–Tucson; **Charles B. Wessel,** Head, Research and Reference Initiatives; **Andrea M. Ketchum, AHIP,** Reference Librarian; Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA
Objectives: Librarian participation in systematic reviews is called for in recent standards. This presents opportunities for librarians to expand their roles and collaborate with research teams undertaking these complex projects. This study examines the outcomes of a systematic review continuing education course for information professionals and reports on the practices, knowledge, and institutional initiatives of past attendees.
Methods: An online survey was developed by the course instructors to assess participants' knowledge, current practices, and acquired skills related to systematic reviews. Institutional review board approval was attained, and the survey instrument was tested prior to administration. Email invitations and follow-up reminders were sent to past attendees (n=169) who participated in classroom based training sessions held between 2009–2012. Data were analyzed using descriptive statistical methods.

Relevant Issues Section

Librarians as Partners in Addressing Health Disparities

Cosponsored by Technical Services Section, African American Medical Librarians Alliance SIG, Library Marketing SIG, Outreach SIG

HCC, Level Three, Room 301

4:35 p.m.
Changing Our Picture of Health: Using First Voice and Storytelling to Create Awareness about Health Inequity and the Challenge to Make It Better
Michelle Helliwell, Librarian, Library and Knowledge Management Services, Annapolis Valley Health, Wolfville, NS, Canada
Objectives: This paper discusses a knowledge translation project, which includes a film and supporting website. The project was created to broaden awareness and encourage conversation and reflection about the impact of the social determinants of health as they pertain to the health of Nova Scotians and to health care delivery.
Methods: This project was partially funded through a grant from the Nova Scotia Department of Health Promotion and Protection. The Population Health Working Group is a multidisciplinary group comprising employees from three health districts in Nova Scotia, including a librarian, who partnered with other health care staff, community partners, a local film producer, and citizens. Focus groups were used to capture the key issues important to both health care providers and citizens before film making began. A short film was created and includes three stories told from the perspectives of a child, an adult, and a senior. It is hosted on a supporting website that also houses facilitation tools, a blog, and relevant links. The intention of the project is to generate discussion about new approaches, policies, and laws that can lessen health disparities and improve the health of our communities.
Results: The project has been featured on national radio and has received local quality awards. In 2011, it was highlighted as an outstanding resource by Accreditation Canada and, in 2012, was presented as a workshop to a gathering of Canadian health care leaders. It is also used by a number of post-secondary institutions in the curricula. The Population Health Working Group continues to use it to broaden the discussion about health disparities and their impact on health care delivery.
Conclusions: Video is a powerful medium to facilitate storytelling about health inequities. While the upfront resource investment is higher, the audience is much broader and the message more engaging. The format also allows for repeated viewing at a time and location that is convenient to the viewer, which is especially important in busy health care settings, which was our first target audience. An interdisciplinary approach that includes people working in the health care system and those outside of it is vital to the success and the honesty of this project.

4:55 p.m.
Building the Capacity of Community-Based Organizations to Obtain Funds: Librarians Teaching Grant Seeking Skills
Barbara Folb, Public Health Informationist, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA
Objectives: The objectives of this paper are to (1) present the evolution of a short librarian-taught class in finding funding for public health practitioners into a full-day, team-taught grant writing workshop; and (2) encourage librarians to apply their information-seeking and training skills to building the capacity of community-based organizations to obtain funding.
Methods: A pressing need of organizations devoted to reducing health disparities is obtaining funding to support these activities. Health sciences librarians can assist with this need by teaching skills related to finding funding opportunities and information management. This presentation will describe the author's experience over the last ten years in developing and delivering grant skills training to public health practitioners and community-based organizations. The class has evolved from a several-hour workshop on finding funding taught by librarians to a full-day session on the complete grant seeking and writing process taught by a librarian and a social worker with expertise in community development. The current workshop incorporates principles of adult learning. Lectures, exercises, team activities, and group discussion are incorporated into the session.
Results: Class evaluations consistently show that participants value the content of the class and the materials they are given to work with after the workshop. Past participants have referred others to the class and reported that the skills taught in the class have increased the capacity of their organizations to seek and obtain grant funding for projects to address health disparities in their communities.
Conclusions: The approach used can be replicated by other libraries serving community-based organizations.

5:15 p.m.
Discovering the Library Practices in a Successful Multi-Partnered Community-Based Health Disparities Intervention Δ
Dawn Littleton, AHIP, Head, Public Services, Mayo Clinic Libraries, Mayo Clinic, Rochester, MN
Objectives: To describe methods—including practices, policies, and roles—used by public and academic library staff in a Centers for Disease Control and Prevention (CDC) Racial and Ethnic Approach to Community Health (REACH) intervention that proved successful in reducing or eliminating several diabetes-related health disparities of a vulnerable population. To share useful insights and findings from a successful health disparities intervention that included librarians as community partners.
Methods: Interpretive intrinsic case study provides information about what appear to be effective practices for library staff, services, and resources in a successful multi-partnered, commu-

nity-based, diabetes-related health disparities intervention. Some questions that will be addressed are: (1) What are some traditional or innovative library roles, services, or resources used in this successful intervention? (2) How was "helicopter" research avoided? (3) How was trust with the vulnerable community members established and maintained? 4) How were community members with low-literacy included? A semi-structured telephone interview was completed with community partners. Data were audio-recorded and transcribed. Themes were identified after coding of transcripts.
Results: Contact was made with eleven participants from March to May 2012 with phone interviews lasting thirty to ninety minutes. Themes, including "community maintaining autonomy" and "the role of the library project manager," were consistent with transformative adult learning theories.
Conclusions: Insights and guidelines suggested by this research may be helpful when deciding how or when to participate in community-based health disparities interventions for vulnerable populations.

5:35 p.m.
Addressing Health Disparities through Health Literacy Awareness
Paula G. Raimondo, AHIP, Head, Liaison and Outreach Services, Health Sciences and Human Services Library, University of Maryland–Baltimore
Objectives: This paper examines the efforts of an academic health sciences librarian to address the issue of health disparities by developing a class that instructs health care providers in ways to communicate with patients. The planning process, development, response, and challenges connected with the class are addressed.
Methods: There is a growing body of evidence that establishes a relationship between the incidence of health disparities and the ability to read, understand, and act on health information. This evidence is used to motivate health care providers to incorporate principles of clear health communication in their dealings with patients and their families in a workshop called "Communicating with Patients." The session emphasizes the use of principles of clear health communication as a tool in helping to reduce the prevalence of health disparities. A patient's understanding of a condition, its treatment, and follow-up care after hospital discharge or appropriate self-care in the case of chronic illness will contribute to a positive health status and may influence a reduction of health disparities over time.
Results: The workshop is offered several times a year and has been attended by over 350 faculty, staff, and students on campus as well as by members of professional organizations and the local health department. Evaluations have been extremely positive. Challenges include finding additional ways to market the workshop, convincing attendees that the use of plain language does not result in "talking down" to patients, persuading resistant investigators who make the claim that informed consent is a process, and communicating that details of the research protocol are clearly explained in person, regardless of the complexity of the language in the document.
Outcomes: As health literacy becomes recognized as a key factor in health status, attendance and demand for the workshop have increased. Librarians are seen as having expertise in clear health communication and receive invitations to give the workshop to individual departments on campus. Opportunities to work with the faculty in other ways have resulted. The author is included in health-literacy-related grant applications and research projects on campus and has served as an advisor on a master's thesis assessing readability of genetics information. Recently, as a service to faculty submitting new research protocols, the library has begun offering to assist principal investigators in bringing language in their consent forms to a level of greater readability.

Research Section

Cultural Differences in Scholarly Practice: Diversity in Creation, Dissemination, Use, and Abuse of Intellectual Output

Cosponsored by Informationist SIG

HCC, Level Three, Room 313

4:35 p.m.
It Takes a Village: Collaborating to Avoid Plagiarism
Rienne Johnson, Reference Librarian, Oliver Ocasek Regional Medical Information Center; **Julie M. Aultman,** Associate Professor, Family and Community Medicine; **Heather A. McEwen,** Reference Librarian, Oliver Ocasek Regional Medical Information Center; **Michelle Cudnik,** Associate Professor, Department of Pharmacy Practice and Department of Internal Medicine, College of Medicine; **Lisa N. Weiss,** Associate Professor, Department of Family and Community Medicine; **Beth Layton, AHIP,** Director, Oliver Ocasek Regional Medical Information Center; Northeast Ohio Medical University–Rootstown
Background: As a health care professional school with no undergraduate programs, it is essential to ensure our students are taught responsible conduct of academic research and to understand and apply essential concepts, particularly plagiarism. The library, along with two other departments, sought to collectively conceptualize plagiarism and to develop useful strategies and methods for faculty and students to assist in detecting, avoiding, and reporting plagiarism.
Methods: A campus conversation was held in April 2011 to provide an open forum for discussing plagiarism. There were two specific outcomes: (1) students reported a need to include plagiarism training during the first year; and (2) faculty found most plagiarism was accidental, due to improper citation or paraphrasing of content. This was especially prevalent with non-US students. To address students' needs, plagiarism training, already offered to graduate students, was embedded in an interprofessional first-year evidence-based medicine course. The goal was to minimize accidental plagiarism seen on literature review assignments. The lesson focused on common knowledge for physicians and pharmacists, proper summarizing and paraphrasing, and proper resource citation. An "Avoiding Plagiarism" library guide was created for the class, which encompassed issues discussed among students and faculty, and provided links to other plagiarism tutorials and educational games to help identify plagiarism.
Results: This is the second year that plagiarism training has been embedded in the first-year evidence-based medicine course. Students are responsive to the training and have benefited from its inclusion. Clicker questions embedded in the lecture illustrate an increased understanding of what constitutes plagiarism, and minimal change was seen in the evidence-based medicine literature review assignment, as both pre- and post-session assignments required only one intervention due to plagiarism. Students are more aware of plagiarism and its consequences, and the new library guides on plagiarism and citing resources continue to be heavily utilized by students, with the citing resources guide averaging 338 hits a month.

Conclusions: The program highlights the common plagiarism issues identified by faculty members. The embedded training is a natural fit in the evidence-based medicine curriculum and provides early awareness of plagiarism and its consequences to the students. Initial results are promising, but further follow-up is needed to establish instructional efficacy over students' full course of study.

4:55 p.m.
The Ethics of Scholarly Publishing: Exploring Differences in Plagiarism and Duplicate Publication across Nations Δ
Kathleen A. Amos, AHIP, Project Manager, Academic/Practice Linkages, Public Health Foundation, Washington, DC
Objectives: To explore national differences in the incidence of plagiarism and duplicate publication among recently retracted biomedical literature available through MEDLINE.
Methods: An analysis of publications cited in MEDLINE and later retracted from the published literature will be conducted. A sample consisting of all biomedical literature published and retracted during the years 2008 through 2012 and accessible through the MEDLINE database will be compiled using searches of PubMed. Retraction notices will be examined for reasons of retraction in order to identify publications retracted due to plagiarism—duplication of another's work—or duplicate publication—duplication of an author's own work. MEDLINE records for retracted papers, as well as the papers themselves, will be reviewed for information on the national affiliation of authors. Rates of plagiarism and duplicate publication based on national affiliation will be explored for differences between countries and compared to country-based rates of retraction for any reason to identify countries with disproportionate rates of retraction due to plagiarism or duplicate publication.
Results and Conclusions: The results and conclusions of this research will be shared at One Health.

5:15 p.m.
Informing Faculty on Copyright: Questions, Issues, and Best Practices
Peggy Tahir, Education and Copyright Librarian, Library and Center for Knowledge Management, University of California–San Francisco
Objectives: The University of California–San Francisco (UCSF) Library is currently working on educating faculty about copyright, answering copyright questions as they arise, and developing tools to assist faculty in using copyright-protected materials in their courses and in their online course components in the collaborative learning environment (CLE).
Methods: To inform and educate faculty on copyright law as it applies to coursework and their own intellectual property, the library created a new position of education and copyright librarian. Current program focus is on developing presentations for faculty to answer their copyright questions, including questions on fair use, redistribution of materials, use of images, providing materials to non-University affiliates, self-plagiarism, open access versus traditional publishing models, the Creative Commons, and maintenance of their own copy rights. Another focus is the development of a set of best practices for faculty when posting materials to their CLE courses. Also in development are information and tools on copyright that will be made available on the web and in the CLE, including university policies on copyright and patents, how to conduct a fair use analysis, and how to inform their students about copyright and plagiarism.
Results: All inquiries regarding copyright are now routed to the copyright librarian, who answers them and provides personal consultations. A LibGuide on copyright at UCSF has been developed. This covers basic information on copyright and fair use and provides links to additional copyright resources for faculty, as well as a basic list of best practices. This guide also links to another LibGuide on finding and using images. In conjunction with the School of Medicine, a workshop on fair use and copyright was presented during the library's Teaching and Learning Center (TLC) open house. Copyright information was also included and presented at the School of Medicine's annual faculty development course, "Educational Scholarship: Reading and Writing in Medical Education." More informal presentations to other groups of faculty in the School of Dentistry and the Division of Hospital Medicine have also been conducted.
Conclusions: There is consistent and increasing demand on campus for help with copyright questions. In addition, the UCSF Academic Senate passed an open access policy in May 2012, requiring faculty to deposit their published works in an open access repository. With a copyright librarian and our assistant director for scholarly communications, the UCSF Library is better prepared to assist faculty with their educational and scholarly pursuits.

5:35 p.m.
Enhancing Access to Local Content in the Developing World: A Case Study of a National University's Institutional Repository
Agnes Chikonzo, Director, Medical Library, University of Zimbabwe, Harare, Zimbabwe
Objectives: To collect, capture, digitize, preserve, and disseminate the intellectual output of the university's faculty and clinical students in order to provide open access to relevant, high-quality information to local and international users and enhance the ability of university personnel to collaborate and network with colleagues worldwide.
Methods: The library director recruited support from the university senate and library management committee for budget, staff training, planning, and infrastructure for project. A team was tasked with researching applicable issues, developing an action plan and forming strategic partnerships with disciplinary faculty and students. Results will be measured by levels of participation amongst the target audience, number of items deposited, and downloads of deposited items. This project is designed to be scalable to enable the participation of partner agencies and organizations to support vitally important public health initiatives to prevent and treat widespread diseases such as malaria and HIV/AIDS.

2013 National Program Committee

This Just In: Lightening Talks on One Health

HCC, Level Three, Room 312

4:30 p.m.
Building a Web Portal of Data Sharing Repositories and Data Sharing Policies: A Contribution to the Data Sharing Initiative at the National Institutes of Health
Kevin Read, Associate Fellow, National Library of Medicine, Bethesda, MD
Description: This project describes the development of two resources that aid data sharing within the biomedical scientific community. The first resource includes a comprehensive list of

all National Institutes of Health (NIH) data sharing repositories that are open to receiving data submissions from any researcher internationally—whether they are funded by NIH or not. The second resource is a compilation of all the data sharing policies that exist in NIH that assist researchers in developing a plan to share their research data. This project contributed to the NIH-wide data sharing initiative by curating and compiling all of the NIH data sharing policies and repositories in one place for the first time. Positioning these inventories on the NIH website will encourage researchers to share their data by providing them with easy access to NIH repositories that support data submissions and NIH data sharing policies that guide and support the data submission process. Medical librarians can contribute to this effort by promoting both resources to their patrons and encouraging data sharing in their institutions.

4:36 p.m.
Clinical Librarian in Outpatient Dental Clinics: Implementing a New Service to Assist Dental Clinicians at the Point of Need
Elizabeth Stellrecht, Clinical Librarian and Liaison, School of Dental Medicine, Health Sciences Library, University at Buffalo, Buffalo, NY
Description: The University at Buffalo (UC) School of Dental Medicine (SDM) has a robust clinical program on site at UB. The current SDM librarian is not only responsible for fulfilling the traditional instruction and reference component of departmental liaison librarian, but is also currently establishing clinical librarian services in the outpatient dental clinics. While spending a portion of the week embedded in the clinic, she provides point-of-need reference assistance to clinical faculty in resolving patient treatment questions and enriches dental education by developing students' evidence-based dentistry skills. This lightning talks session will discuss steps taken to implement the new service, challenges faced by the librarian, examples of how this service has been used by dental faculty and students, and the unique aspects of clinical librarianship in a dental context.

4:42 p.m.
Model Behaviour: Changing Perceptions and Turning New Challenges into New Opportunities
Heather Todd, Director, Scholarly Publishing and Digitisation Service, Library, University of Queensland–St Lucia Campus, Australia
Description: Many emerging library services—including research evaluation, bibliometrics, data management, scholarly communication, and repository management—fall outside the traditional subject specialist model. To optimise these services, a tiered service model has been developed, successfully implemented, and accepted by life sciences librarians. The model puts emphasis on ensuring concise and purposeful training is delivered at the right level for each librarian, and it includes the provision of dedicated expert staff embedded in the library to provide ongoing support and training. The result is that life sciences librarians are accepting of the new opportunities, are responding positively to the new opportunities, and are better prepared to demonstrate their value in the ever-changing landscape of digital scholarship.

4:48 p.m.
Doctors, Librarians, and Evidence-Based Medicine: An Australian Approach to Collaborative Skill Building among an International Clinician Cohort
Mary R. Simons, Research Librarian, Library, Macquarie University, Turramurra, Australia; **Susan Vickery**, Library Services Manager, Library, Macquarie University, NSW, Australia; **Andrew Davidson,** Neurosurgeon, Australian School of Advanced Medicine, Macquarie University, Sydney, Australia
Description: Doctors undertaking programs at Macquarie University come from many different countries, where they often lack access to information resources and have not acquired effective literature searching skills. Macquarie University librarians have developed a program where literature searching and appraisal skills are embedded into clinical workloads and assessed, thereby enabling these doctors to incorporate evidence-based medicine (EBM) principles into their clinical practice and improve their communication skills. Emphasis is on using the EBM cycle of ask, acquire, assess, and apply information using a range of information resources. In consultation with clinical supervisors and guided by a librarian, each doctor identifies a searchable question in relation to a current case. They present the case and literature search using a PowerPoint template during weekly team meetings. Librarians and clinical supervisors assess mastery of learning using a checklist incorporating information literacy standards. When competence in using the EBM cycle is demonstrated, doctors use this activity to develop a literature review for a publication or protocol where their communication skills are further developed and refined. Publications in peer-reviewed journals have resulted, demonstrating that EBM principles can be acquired and shared among clinical teams to improve patient care.

4:45 p.m.
Health Information Service to Older Adults at the Bedside
Michele Mason-Coles, National Library of Medicine Associate Fellow, Health Sciences Library, Inova Fairfax Hospital, Crofton, MD; **Lois Culler,** Library Director, Health Sciences Library; **Susan Heisey,** Program Director, Hospital Elder Life Program (HELP); Inova Fairfax Hospital, Falls Church, VA
Description: Inova Fairfax Hospital Health Sciences Library is in the pilot phase of a project collaborating with Inova Hospital Elder Life Program (HELP)* to seek out the health information needs of hospitalized older adults and provide them with health information at the bedside. HELP is a successful worldwide program with a volunteer staff trained to maintain the cognitive and physical functioning of the growing global population of high-risk older adults throughout their hospitalization to prevent hospital delirium, a universal concern. Our medical librarians assist in volunteer training, conduct searches for appropriate consumer resources, and return the health information to the HELP office for immediate delivery by volunteers. Additionally, data are collected on the number and type of requests as well as patient satisfaction with the service. The health information service pilot provides a distinct, unique library outreach service to our older population of in-patients and adds value by helping them to maintain cognitive function as they consider information to help them understand their own health conditions, better equipping them to formulate questions and actively participate in making informed health decisions, potentially contributing toward improved Hospital Consumer Assessment of Healthcare Providers & Systems (HCAHPS) scores.
* The Hospital Elder Life Program was developed by Sharon K. Inouye and colleagues at the Yale University School of Medicine.

5:00 p.m.
Readability Levels of Health Insurance Summary of Benefits and Coverage Forms
Emily Vardell, PhD Student and Research Assistant, School of Information and Library Science, University of North Carolina–Chapel Hill
Description: The 200 million Americans with private health insurance must select their preferred coverage level each year using summary of benefits forms from their insurance providers. However, with 36% of Americans with basic or below basic health literacy skills, these forms can be difficult to comprehend and assess. The Affordable Care Act, signed into law in 2010, now requires all health insurance providers to offer summary of benefits and coverage forms written in plain language in an effort to address readability concerns. The author will conduct a study of a sampling of currently available summary of benefits and coverage forms—using the Flesch-Kincaid Grade Level Index, New Fog Count, and FORCAST readability tests—to assess the reading levels of the forms. These three tests, created by the US military, were selected to reflect varying readability concerns, including sentence length and syllable count. This review will evaluate the status of summary of benefits forms and provide an overview of the qualities of reader-friendly, plain language informational materials.

5:06 p.m.
The Development of Books Utilization Measurement and Security System
Tzu-heng Chiu, Associate Professor and Associate Director, University Library, and Chairperson, Medical Library Committee, LAROC, Taipei Medical University, Taipei, Taiwan
Cause: With the idea of dormitory learning commons, Taipei Medical University Dormitory Management Group established Mu-Shan learning commons in the basement of the dormitory. Furthermore, with the support from Taipei Medical University Library (TMUL), Mu-Shan learning commons provides students with thousands of books and tens of magazines from diverse subjects. However, we still need to trace the utilization rate and make sure that all the items will not be taken away. Design: This system is designed by the staff of the TMUL and gets the Taiwan patent. We install infrared counter onto the book shelves; then, the system will count when users grab books from the shelves. With a matching list in the database, we then apply RFID tag on every item, gadget, and furniture, which suggests that no items could be taken away without being noticed. Furthermore, with the patented Ungated Security System, there will be a warning alarm and photo-taking strategy when an item is taken away. Meanwhile, the photo and the list of lost items will be presented on the computer. Outcome: This design allows librarians to find out the utilization rate of the collection and each area without practical supervision and to control the learning commons remotely. We hope that it could be applied to every college learning commons in Taipei Medical University.

5:12 p.m.
Libraries Administering E-Textbooks: A Nursing Case Study
Dean Hendrix, Assistant Director, University Libraries, University at Buffalo, Buffalo, NY
Description: Electronic textbooks (or e-textbooks) and their business models are evolving quickly and represent a singular opportunity for the higher education community to serve students more efficiently both academically and financially. Motivated by the desire to enhance student learning outcomes, reduce student expenditures on course materials, and influence the terms of sustainable business models, the University at Buffalo Libraries has led a consortial e-textbook pilot serving over 350 nursing students across New York. This lightning round session will focus on undergraduate and graduate nursing students' attitudes towards e-textbooks, and their reading and engagement behavior gleaned from usage data. This session will conclude with a brief summary of the administrative challenges and opportunities of the pilot, including engagement of nursing faculty, identity management issues, necessary partnerships, and license negotiations.

5:18 p.m.
The Mobile School Health Information Initiative
Judy Hansen, Consumer Health Librarian, Family Resource Center of St. Louis Children, Bernard Becker Medical Library, School of Medicine, Washington University in St. Louis, St. Louis, MO
Description: The Mobile School Health Information Initiative (MoSHI) is an innovative outreach program developed by health sciences librarians to connect pre-school through grade 12 personnel with credible health information. School librarians, guidance counselors, science and health teachers, social workers, and school nurses are being asked increasingly complex questions about student health issues that they often do not feel qualified to answer. The MoSHI curriculum provides the expertise of health sciences librarians in professional development workshops to improve health education and health literacy across the curriculum.

5:24 p.m.
Virtual Office Hours at the Welch Medical Library
Carrie Price, Clinical Informationist, Welch Medical Library, Johns Hopkins University, Baltimore, MD
Description: Informationists at the Welch Medical Library are implementing virtual office hours. Serving patrons spread out over three schools, a hospital, and multiple city blocks can prove challenging at times, so in addition to having various meeting spaces and in-person office hours, informationists now offer synchronous virtual chats and Adobe Connect web conferencing for virtual office hours. Informationists have the ability to screenshare to help patrons find the right resources, troubleshoot access issues, and assist with bibliographic management. Office hours will be set and posted on the informationists' home pages, so patrons know when their librarian is available. In the mission to become embedded within the users' space, virtual office hours are viewed as one more step toward the oft-repeated motto of "Welch Medical Library: Wherever You Are."

5:30 p.m.
Virtual Reference: A Future for Ugandan Libraries
Richard Ssenono, Medical Librarian, Information Services, Infectious Diseases Institute, Kampala, Uganda
Description: Several libraries world over have continuously integrated information and communication technology (ICT) in libraries, which enables virtual reference services to be provided by reference librarians. This allows for synchronous communication using features such as chat, co-browsing of websites, web page and document pushing, and storage of chat transcripts. In addition to this librarians use email chats like Gmail chat, Facebook, where customized library pages can be used to chat with users. More so the use of instant messaging service is a low-cost

means of offering chat-based reference, since most of these services are free. Utilizing such services will allow users to contact librarians from any location via computer, cell phone, iPods, or anything else with Internet. With this, Ugandan libraries will be able to create a digital reference section of multidisciplinary reference specialists responding to reference questions like about the library's online resources, which is still lacking among libraries in Uganda.

5:36 p.m.
Partnering on HIV/AIDS: Education, Awareness, and Social Media
Naomi Broering, AHIP, FMLA, Dean, Libraries; **Gregory Chauncey,** Health Information Instructor; Medical Library, Pacific College of Oriental Medicine, San Diego, CA
Description: The Pacific College of Oriental Medicine (PCOM) Library received a 2012 National Library of Medicine (NLM) award for an outreach partnership project with 10 major San Diego (SD) community organizations to provide training on access to HIV/AIDS information from the NLM, National Institutes of Health (NIH), Department of Health & Human Services (DHHS), and related government agencies. The partners include the SD County Public Health Service HIV sexually transmitted disease (STD) center, community centers, churches, public libraries, and HIV/AIDS health care clinics. The project goals, objectives, and outcomes will be presented. Goals are to improve delivery of HIV/AIDS health care, education, and awareness of NLM's quality health information by reaching out directly to the afflicted, their families, and health practitioners, and to introduce new HIV social media programs to a large, diverse SD population. Objectives are to raise awareness of and provide access instruction and workshops on NLM resources, including webinars, online tutorials, and live sessions. Current workshop outcomes and the annual Pacific Symposium exhibit for over 700 participants will be reported. More workshops are planned. The paper will include 3 slide images demonstrating project events.

5:42 p.m.
Pulling versus Pushing Medical Information in a Third World Country
Jim Comes, Consultant, Self-employed, Worcester, MA; **Elaine Russo Martin,** Director, Lamar Soutter Library and National Network of Libraries of Medicine, New England Region, University of Massachusetts Medical School–Shrewsbury
Description: Providing less developed countries with medical information tailored to health worker needs offers the challenge of identifying information needs, and addressing the deficiencies and barriers to accessing information that is locally relevant, usable and reliable. The Lamar Soutter Library collaborating with the Global Health Office at the University of Massachusetts Medical School has been working with the A. M. Dogliotti Medical Library at the University of Liberia in Monrovia and the JFK Community Hospital. The project will identify information needs and resources at the medical school and local community hospital through individual and small group interviews at the medical school and embedding ourselves in one or two selected medical departments. Basing information on expressed needs is more likely to be put into practice than information that is "pushed."

5:48 p.m.
More Therapy Dogs! Reducing Student Stress in the Health Sciences Library
Pamela M. Rose, Web Services and Library Promotions Coordinator, Health Sciences Library, University at Buffalo, Buffalo, NY
Description: Therapy dogs, food, massage, music, and a tranquil setting garnered enthusiastic student response, as the Health Sciences and Lockwood Libraries at the University at Buffalo completed our third "Stress Relief Week" event in December 2012. Therapy dog teams, scheduled in two shifts per day over three days, greet students as they take a break from studying. While the combination of offerings creates a soothing atmosphere, the therapy dogs are clearly critical to the success of the event. The benefits of animals contributing to the health and well-being of humans is clearly evident from student feedback, as well as from staff working the event who also comment on how soothing it is to interact with the dogs.

5:54 p.m.
Reaching a Global Audience of Medical Students and Professionals with Massive Open Online Courses (MOOCs)
Steven Williams, Instructional Designer, Library and Center for Knowledge Management, University of California–San Francisco
Description: In January 2013, University of California–San Francisco (UCSF) became the first health sciences university in the world to launch massive open online courses (MOOCs), using the Coursera platform. These courses were developed through a collaborative process between the library, student academic affairs, and individual faculty/departments. With learners from all over the world signing up for these free classes, UCSF has demonstrated a commitment to its mission of advancing health worldwide, by making evidence-based health sciences content available to an audience comprising primarily students from outside the United States. This session discusses the demographics of students taking the MOOCs offered by UCSF and provides some information about what type of learners can be most successful in this emerging learning environment.

ICML 2
Monday, May 6, 10:30 a.m.–noon

2013 National Program Committee (NPC) and International Congress on Medical Librarianship (ICML)

International Congress on Medical Librarianship 2: Trustworthy and Authoritative Publicly Available Information

Cosponsored by Consumer and Patient Health Information Section, Corporate Information Services Section

HCC, Level Three, Room 309

10:35 a.m.

Trustworthiness and Authoritativeness of YouTube Videos on Smokeless Tobacco Δ

Donghua Tao, Health Sciences Reference Librarian and Associate Professor, Medical Center Library; **Prajakta Adsul,** Doctoral Student, Public Health Studies, School of Public Health; **Ricardo Wray,** Associate Dean, Research and Graduate Education, and Associate Professor, Behavioral Science and Health Education, School of Public Health; **Keri Jupka,** Research Coordinator, School of Public Health; **Carolyn Semar,** Student, Master of Public Health Program, School of Public Health; **Kathryn Goggins,** Student, Master of Public Health Program, School of Public Health; Saint Louis University, St. Louis, MO

Objectives: YouTube, a popular free social media website, plays a role in marketing and distributing consumer education materials, in addition to entertainment. However, the trustworthiness and authoritativeness of videos on YouTube remains unclear. This study aims to explore these issues by examining the characteristics and metadata of YouTube videos about smokeless tobacco products (STP).

Methods: Eighteen STP-related terms were used to search YouTube videos, examples of which include chew, chaw, dip, and snuff tobacco. Between October and December 2011, a total of 3,603 unique videos were retrieved and downloaded. A sample of 447 videos was randomly selected, and 278 of them that met predefined inclusion criteria were included and analyzed. A content analysis was conducted on factors contributing to trustworthiness and authoritativeness, including video's message content (e.g., pro or against STP), production values (e.g., video quality), and source factors (e.g., author/sponsor of the video, if the video references other videos). Inter-coder reliability was assured for both inclusion and coding processes with Kappa's $\alpha \geq 0.8$. Descriptive analysis on video metadata such as number of views, ratings, number of times a video was selected as a favorite, and number of comments were also performed.

Results: As for video's message content, 245 videos (88.1%) were pro-STP use, while 20 videos (7.2%) were anti-STP use; 13 videos (4.7%) were neither pro- nor anti-STP use. Twenty-two (7.9%) of the videos appeared to be professionally produced as compared to 256 (92.1%) of the videos that appeared to be user generated. Forty-one (14.7%) videos provided author or contact information; 104 (37.4%) videos invited feedback from viewers; 97 (34.9%) videos referenced other YouTube users. Spearman's rho correlations found that message content is associated with the number of times a video was selected as a favorite ($r=0.16$, $P<0.01$); production values are associated with ratings ($r=0.18$, $P<0.01$); and source factors are associated with ratings ($r=0.15$, $P<0.05$) and number of comments ($r=0.19$, $P<0.01$).

Conclusions: The study results showed that YouTube users like videos that favor STP use. Higher-quality videos received higher ratings, so we theorize that viewers are more likely to trust the information disseminated by highly rated videos. Videos with author or contact information, inviting feedback from viewers, and referencing other YouTube users received higher ratings and more comments than those without this information, which indicated viewers trusted these videos and thought they were more authoritative. Future studies interviewing YouTube users about these sampled STP videos can get first-hand information on perceptions of viewers on YouTube videos' persuasiveness via trustworthiness and authoritativeness.

10:55 a.m.

Twenty Years of the Cochrane Collaboration: A Legacy of Trustworthy and Authoritative Publicly Available Information and Plans for the Future

Carol Lefebvre, Independent Information Consultant, Lefebvre Associates, Cochrane Information Retrieval Methods Group, Oxford, United Kingdom; **Julie Glanville,** Associate Director, York Health Economics Consortium, and Co-Convenor, Cochrane Information Retrieval Methods Group, University of York, York, United Kingdom; **Jessie McGowan, AHIP,** Adjunct Professor, Departments of Medicine and Family Medicine, and Co-Convenor, Cochrane Information Retrieval Methods Group, University of Ottawa, Ottawa, ON, Canada; **Alison Weightman,** Associate Director, Research and Academic Engagement, Director, Support Unit for Research Evidence, Information Services, and Co-Convenor; **Bernadette Coles,** Site Librarian, Cancer Research Wales Library, and Co-Convenor; Cochrane Information Retrieval Methods Group, Cardiff University, Cardiff, United Kingdom

Description: The year 2013 marks the 20th anniversary of the Cochrane Collaboration, which provides trustworthy, authoritative publicly available health care information through the Cochrane Library (CLIB). The work of the collaboration has been likened, in The Lancet, to the Human Genome Project, in its potential implications for modern medicine. CLIB provides access to a range of databases: systematic reviews of the effects of health care interventions and contains over 5,000 completed reviews and outlines of over 2,000 reviews in progress; a register of about 700,000 records of reports of trials (CENTRAL); and databases of non-Cochrane reviews, heath technology assessments, and economic evaluations. Nearly 3 million people "visited" CLIB during 2011. For consumers, CLIB provides reliable, authoritative evidence syntheses, in the form of summaries of systematic reviews, as abstracts and as plain language summaries, free-of-charge through the collaboration's website and through CLIB itself, in a number of languages in addition to English. For health care professionals and consumers seeking more detailed information, the full-text is available through national provisions, organizational subscriptions, and initiatives such as HINARI and INASP. Millions of people worldwide have full access to CLIB, free-at-the-point-of-use, through these initiatives. For librarians and information specialists, the Cochrane Collaboration has contributed to a number of important endeavours in the field of information retrieval in evidence-based practice: improvement in discoverability of reports of randomized trials in MEDLINE and Embase (in collaboration with the US National Library of Medicine and Elsevier, respectively); building of CENTRAL, described above; development of methods for identifying studies for evidence synthesis and reporting these methods, through

initiatives such as the Cochrane Handbooks and the Methodological Expectations for Cochrane Interventions Reviews (MECIR) standards development programme; and awareness-raising amongst librarians and information specialists of the importance of systematic reviews in evidence-based practice and how to identify studies for inclusion in systematic reviews and other evidence syntheses.

11:15 a.m.
Information Connections: Providing Access, Linking Communities Δ
Nalini Mahajan, Director and Webmaster, Marianjoy Medical Library; **Mary Keen,** Director, Pediatric Program; **Kathleen Ruroede,** Vice President, Quality and Research; Marianjoy Rehabilitation Hospital, Wheaton, IL
Objectives: (a) Develop a better understanding of the health information needs of the parents of children with developmental disabilities and chronic conditions. (b) Build a dedicated website to provide up-to-date and reliable information with a special focus on autism, cerebral palsy, attention deficit hyperactivity disorder (ADHD), Down syndrome, and traumatic brain injury.
Methods: The project "Information Connections" is based on parental needs identified by the director of the pediatric program at Marianjoy who works with parents of children with developmental and physical disabilities. The National Library of Medicine provided the funding for the project. Five local organizations serving children with developmental disabilities agreed to join Marianjoy in the effort. A preliminary model web page was developed on the basis of an initial needs assessment with feedback from parents and caregivers, physicians, and therapists. A 30–60 minute interview was conducted individually with 9 parents, and 3 focus group sessions, each lasting 60–90 minutes, were held with the parents and clinicians. A 30-question online survey was used as an additional tool for the needs assessment; 182 survey responses were received, and data were analyzed. Evaluation criteria was developed and used to select the web resources.
Results: Internet is the preferred choice to find health information: 86.5% used Google and 18% were highly satisfied with their results. Only 12.5% were satisfied with the information about local and state resources. Needs assessment helped us develop a better understanding of the health information needs of parents and reinforced the need for up-to-date, high-quality consumer health information, as well as community resources grouped together at one information portal. Data analysis was used to design the navigational architecture and develop the website. The website went live on April 29, 2010.
Conclusions: Information Connections seeks to simplify access to the most relevant health resources while alleviating the problems of "information overload," duplication, and currency. It is available to parents, clinicians, and anyone looking for up-to-date and reliable information on the Internet. It is free and is updated continuously. The website for parents of children with developmental disabilities and chronic diseases recently celebrated its first anniversary. Use of social media platforms such as Facebook, Twitter, and YouTube for consumer health information will be discussed.

11:35 a.m.
A Content Analysis of Health Information in Wikipedia: How Does It Compare to WebMD and the Centers for Disease Control and Prevention (CDC)? Δ
Lisa Gualtieri, Assistant Professor, Department of Public Health and Community Medicine, School of Medicine, Tufts University, Boston, MA
Objectives: When people search for health information online, Wikipedia entries often show up. While Wikipedia has been compared to *Encyclopedia Britannica* for accuracy, it has not been assessed for the accuracy of the health information nor compared to WebMD and the Centers for Disease Control and Prevention (CDC), both popular destinations. This study is assessing accuracy and currency from the perspectives of patients, medical librarians, and physicians.
Methods: The question is not, "Would you trust your health to Wikipedia?", but "Are people who use it are getting accurate and current information?" To answer this, we started by examining the methods used by a heavily publicized study published in *Nature* [2005 Dec 15;438;900–1] that compared the accuracy of Wikipedia to *Encyclopedia Britannica,* which had expert reviewers examine fifty topics. We selected ten topics that cover the breadth of health searches, including strep throat, food allergy, sexually transmitted infections, stress management, and bed bugs, and developed a rating system to assess the quality, accuracy, and currency of these topics. After validating the instrument, we will ask patients with varying health literacy skills, medical librarians, and physicians to rate the information on these topics in Wikipedia, WebMD, and the CDC.

Program Session 2
Monday, May 6, 10:30 a.m.–noon

Cancer Librarians Section

The Cancer Spectrum: Living, Surviving, and End of Life Issues

HCC, Level Three, Room 301

10:35 a.m.
Preventing Errors in Oncology: Perspective of a Physician Who Is also a Cancer Patient
Itzhak Brook, Professor, Department of Pediatrics, School of Medicine, Georgetown University, Washington, DC
Description: I am presenting my personal experiences as a physician who underwent laryngectomy for hypopharyngeal squamous cell carcinoma. Unfortunately, I experienced numerous medical and surgical errors during my hospitalizations at three medical centers. Medical, surgical, and nursing errors are very common in patient care. Some may be life threatening and can lead to increased morbidity and mortality. Preventing such errors is of utmost importance. A dedicated patient advocate such as a family member or a friend is very much needed for all hospitalized patients. Open discussion of such errors may decrease them and eventually lead to better care. It is my hope that my presentation will contribute to the reduction of such errors and lead to a safer environment in the hospital setting.

10:55 a.m.
Librarians AND *Neoplasms/di/dt/ed/px/rh/rt/su AND Work AND Life
Susan C. Steelman, Associate Professor and Head, Education and Reference Services, UAMS Library, University of Arkansas for Medical Sciences–Little Rock

Description: The Research and Clinical Search Services (RCSS) unit in our library consists of 2 expert searchers, who provide about 200 mediated searches, 40 consultations, and 20 classroom sessions each year, in addition to performing many other tasks. Within a few weeks at the end of 2010 and beginning of 2011, we both were diagnosed with cancer and embarked upon our treatment regimens. This is the story of how we managed our work, our treatments, and our decisions. When we received our respective diagnoses and planned our treatments, we expected that our surgery, chemotherapy, and radiation therapy taking place in the same time period would have serious impact on our work. As it turned out, our professional preparation—our skills, our ability to find and use the highest-quality information, our capacity to act as decision-making partners with our physicians—had significant impact on our navigation of this encounter with "The Crab." We were very fortunate to have many excellent resources available to us, from health insurance to world-class oncologists and from databases and journals to incredibly supportive managers and colleagues. At first, we thought that all of these resources, along with our own positive attitudes and determination to learn as much as possible in order to make the best decisions possible, would somehow mitigate our treatment experiences. What we found out was that no matter how proficiently we could find, organize, synthesize, and utilize the relevant information about adverse effects, they happened to us anyway. We also gained a new appreciation for the importance of timely, accurate information about treatment research to patients who are trying to make vital decisions. The information resources to which we had access helped immeasurably in some difficult decisions: one of us choosing to undergo aggressive proactive treatments, and the other reluctantly dismissing a very likable oncologist. We also found out that surviving treatment and returning to work was only the beginning of a surprisingly long, tedious road to recovery. For example, we were both prescribed a daily aromatase inhibitor. The frequent hot flashes are annoying, but our experiences with anomia really take the—you know, that thing, it's round and sweet and you have it on your birthday.

11:15 a.m.

The Development and Deployment of a Symptom Management and Monitoring System for Supporting Cancer Caregivers Δ

Katherine Schilling, Associate Professor, School of Library and Information Science; **Anna McDaniel,** Chancellor, School of Nursing; **Robert Comer,** Faculty, School of Informatics; Indiana University–Indianapolis

Objectives: This paper describes the development of an interactive tool through which cancer caregivers track, monitor, and more effectively manage their own health and wellness. Through their interaction with the eight-week intervention and engagement with evidence-based support materials caregiver burden is reduced. Results of pilot testing and issues related to deployment of the tool to a national audience are discussed.

Methods: Caregivers are at risk for significant health problems, increased morbidity, and high levels of burden, anxiety, and depression. Whether or not they feel competent to do so and despite the stress of incorporating caregiving into their daily lives, many people become active cancer caregivers. At the same time, caregivers receive little preparation, information, or support to perform their critical roles. Few caregivers receive professional assistance in dealing with their own issues, and few interventions exist to support caregivers' emotional and wellness needs. Although education, intervention, and information support reduce caregiver strain and uncertainty, and enhance a sense of control, caregivers remain an underserved population whose needs go largely unmet. This project sought to address these issues through the development and transformation of a caregiver-focused system that allows cancer caregivers to track and manage their own needs and issues.

Results: Cancer caregivers use the interactive eight-week intervention to: (1) report symptoms and feelings; (2) track, monitor, and view symptoms, feelings, and needs; and (3) receive information in support of severest and commonly reported symptoms. Data tracking allows for a variety of visual graphing options so users can track and view their symptoms and needs responses over time. Based on the caregiver's weekly self-assessment, the system provides a care guide, which includes expertly selected and tailored tips, support solutions, coping information, and support resources. System evaluation results are overviewed, as are issues related to developing and licensing products in multidisciplinary teams.

11:35 a.m.

When Cancer Hits Home: Personal and Professional Perspective

Margaret Vugrin, Reference Librarian, Preston Smith Library, Texas Tech University Health Science Center–Lubbock; **Davor Vugrin,** Director, Texas Center for Cancer Control–Lubbock

Objectives: Mom was diagnosed with cancer. Being the wife of an oncologist, the world did not fall apart initially; I knew there were various options. What I did not expect was how much this diagnosis would change all of our lives. Being an oncologist with a cancer patient in the family was extraordinarily difficult. Together, we present our stories.

Methods: Where does one begin? Knowledge of patients, doctors, offices, hospitals, and medical systems does not make this an easy challenge. Cancer brings together many strange bedfellows: families, emotions, past histories, misunderstandings, love, and affection. We handled each roadblock and bump as best as we could. We learned which were the ones to pay attention to and which ones not. We learned the importance of little moments, of memories we created for a lifetime. We also learned when it was time to let go. Until you have gone through this life process, it is hard to understand. Though each case is unique, we would like to share the constants that may make this an easier road to travel.

Results: Mom died at home surrounded by her children and three of her grandchildren. We had taken the long and hard road together and enabled her to have her final wishes.

Conclusions: Being a clinical medical librarian was an incredible help in this situation. Knowing the vocabulary and understanding some of the cancer process was clearly advantageous. It also helped in being able to work through the medical system. But most of all, the important thing after everything is said and done is that we did all that we could do when it was needed. We fought every battle for her, we were mom's patient advocates. That is what sustains me now. It also gave me incredible insight into what oncologists do for their patients and their families.

Consumer and Patient Health Information Section and Public Health/Health Administration Section

Health Literacy: Linguistic and Cultural Diversity

Cosponsored by Hospital Libraries Section, Pharmacy and Drug Information Section, Relevant Issues Section

HCC, Level Two, Room 206

10:35 a.m.

Structured Health Information Text for Improving Health Communication: Content Analysis of Short Disease Explanation Texts in Lay Medical Books Δ

Yukiko Sakai, AHIP, Associate Professor, School of Library and Information Science, Keio University, Kawaguchi, Saitama, Japan

Objectives: In addition to syntax and vocabulary, the text structure of written health information is considered a key factor in optimizing readability and comprehension and resolving health literacy issues. The purpose of this study was to identify the common text structure among lay medical books that could be shared by health professionals and health consumers as a standard text structure in health information text to improve health communication.

Methods: Sixty-three short texts in Japanese and English containing basic information on three specific diseases (i.e., gastric cancer, breast cancer, chronic otitis media) were collected from 21 lay medical books and analyzed manually, picking up the headings and the keywords representing the content. Possible content elements were identified on the basis of grouping of the headings and keywords. The frequency rate of each element among 63 texts and the average percentiles of each element in 740 items, subdivided by elements as the locations in the text were examined with the comparison of diseases and languages as possible disease-specific or cultural differences and similarities.

Results: The author derived 10 possible elements (i.e., definition, etiology, anatomy and physiology, pathology, etiology, symptoms, tests and diagnosis, therapy, prognosis, prevention) from the content analysis of 63 texts. "Therapy" (98.4%), "symptoms" (87.3%), and "etiology" (77.8%) were the most frequently involved elements, and no significant differences were shown among diseases and languages for these 3 elements with the chi-square test. Significant differences were shown among diseases for the other 5 elements and between languages only for "prevention" in breast cancer texts (P=0.03). The analysis of variance among average percentiles of 10 elements in 740 subdivided items showed significant difference (P=0.00) that indicated the different location in the text. However, a multi-analysis did not show differences between all elements for the exact sequence. Differences in the percentiles were also shown among books, diseases, and languages for 4 elements in total. In addition, the location of "therapy" varied widely at 79.0% in average, but with 11 outliers from 8.3% to 23.1%.

Conclusions: Three elements (i.e. "symptoms," "etiology," "therapy") have been identified as high-priority elements among ten possible content elements from disease explanation texts. The priority of other elements should be further examined as disease and/or language specific elements with a larger sample. The decision of the standard sequence of the elements was difficult due to multiple confounding factors.

10:51 a.m.

Health Information-Seeking Behavior of South Indian Elderly Immigrants: An Investigation of the Use and Availability of Consumer Health Resources in South Indian Languages Δ

Prasanna Vaduvathiriyan, Reference and Instructional Services Librarian; **Shari Clifton, AHIP,** Professor and Head, Reference and Instructional Services; Robert M. Bird Health Sciences Library, University of Oklahoma Health Sciences Center–Oklahoma City

Objectives: This study analyzes the health information-seeking behavior of elderly immigrants (EI) to the United States from the southern part of India. The study also examines the availability and use of consumer health resources in the official state languages of south India by EIs. Research recommendations on availability, accessibility, and use of consumer health resources for a heterogeneous language/ethnic EI groups are also discussed.

Methods: EIs of age fifty-five and above are selected and approached through temple, church, and other social organizations, mainly from Oklahoma state. Through in-depth telephone interviews and questionnaires distributed in three languages—Tamil, Malayalam, and Thelugu with English translations—the study analyzes the availability, access, and use of consumer health resources in south Indian languages by EIs age fifty-five and above.

Results: EIs have more barriers in accessing and using health information when compared to US citizens of similar age. Cultural uniqueness, English language proficiency, social isolation, Internet browsing skills, and so on are major barriers to accessing health information. Available consumer health resources in south Indian languages are insufficient. Additional research recommendations are needed for EIs from diverse, heterogeneous language and ethnic origin to improve health literacy. Additional recommendations will be available after completing the survey.

Conclusions: This study suggested that there is an increased need of consumer health resources to support south Indian EIs. Adequate health awareness will lead to healthy aging among this population group. Health providers and public health departments will need to take initiatives to encourage south Indian elderly populations to be health literate.

11:07 a.m.

Using Crowdsourcing and Participatory Design in the Development of Graphics to Enhance Health Education Materials for Underrepresented Populations Δ

Erica Lake, Associate Director, Hope Fox Eccles Health Library; **Qing Zeng-Treitler,** Associate Professor, Department of Biomedical Informatics; **Jean P. Shipman, AHIP, FMLA,** Director, Spencer S. Eccles Health Sciences Library; University of Utah–Salt Lake City

Objectives: Pictures are a powerful communication tool; however, creating pictures to illustrate patient instructions can be costly and time consuming. A crowdsourcing approach will be used to create and test health-related pictures to solve this limitation. In addition, pictures created and tested by consumers should have the additional advantage of being more culturally appropriate to the participating disadvantaged populations.

Methods: We propose to develop a system that will put research knowledge into practice by exploiting the capabilities of computer and information technology, and health sciences libraries

to bring health-related information to health disparity populations and to the health care providers who care for those populations. More specifically, we will develop a system, based on an open participatory design model, for the creation of clip art to illustrate patient education information in order to make it easier to understand and remember; implement the system's website and monitor the direct and mediated participation; and conduct an evaluation of outcomes using metrics for health care providers' satisfaction, health care consumers' recall and understanding, health care consumers' reported compliance, and historical increase in the number of users of the system.
Results: A library of pictograms has been created to repopulate the system. The system development is scheduled to begin in the spring of 2013.
Conclusions: As grant funding is pending, we can only project that this work will be of benefit to the many communities that will use them and that having the communities involved in their creation will make the pictographs more relevant and understandable. If patients understand more about how to take their medications and what is asked of them by their providers, improvements to their health should be inevitable.

11:23 a.m.
Influencing Patient-Provider Communication and Promoting Patient Self Advocacy Δ
Linda C. Butson, AHIP, Consumer Health and Community Outreach Librarian, Biomedical and Health Information Services; **Rebecca R. Pauly,** Associate Vice President, Health Affairs, Equity and Diversity, Professor, Medicine; **Jennifer A. Lyon, AHIP,** Clinical Research Librarian, Biomedical and Health Information Services; **Michele Tennant, AHIP,** Assistant Director, Biomedical and Health Information Services, and Bioinformatics Librarian, Health Science Center Libraries and UF Genetics Institute; University of Florida–Gainesville
Objectives: This project assesses the benefits of embedding a medical librarian into an outpatient clinic to capture the "teachable moment" with a diverse patient population and determine if librarian-provided health information and personal assistance has value in helping patients prepare for their doctor's visits, formulate questions to ask, and enhance health outcomes.
Methods: A medical librarian provides consumer health information and pre-physician-encounter coaching for patients four hours twice weekly in University of Florida's Internal Medicine and Medical Specialties (IMMS) clinic. There are two study populations: (1) health care providers, residents and faculty physicians seeing patients in the clinic; and (2) the patients who consult a librarian prior to their doctor's visit. The preferred learning style, access to technology, and literacy level of enrolled patients are assessed during the librarian-patient encounter. Sources and formats of health information, including smartphone applications, on the clinic's most common diagnoses are under development. Information provided by the librarian is matched to the specific patient's needs. Health care providers and patients will be asked how the intervention impacted their point-of-care clinic visits.
Results: Originally funded through the National Library of Medicine (NLM), this project was expanded with support from the Gatorade Research Fund. From October 2012 through March 2013, the librarian attended twice weekly clinic sessions in a resident staff clinic and a faculty clinic. Initially, physician and patients were unsure of the librarian's role and capabilities. Ten physicians and thirty-nine patients have been enrolled through December 30, 2012. During a pilot project in spring 2012, physicians indicated that librarian consultations did not increase their patient encounter time. Physician responses for the expanded project will be assessed in April 2013. Patients have asked questions about medications, symptoms, medical tests, treatments, and patient access to health records. Resources used to assist patients included MedlinePlus, pharmacy formularies, PubMed, association websites, and the Shands Hospital's patient care portal. Patient responses have been consistently positive. Patients respond more positively to a personal invitation to participate than to a flyer announcing the service. When patients have no personal questions, they express appreciation that the service is available. Initial results show multiple sources and formats of health information are needed to meet diverse learning styles.
Conclusions: Librarians can play an important role in enhancing patient's ability to engage in the clinical encounter by encouraging patient self-advocacy and patient-physician communication. When patients have no personal health questions, librarians have an opportunity to share information about reliable sources of health information.

11:39 a.m.
Contributing to the Establishment of a Medical Home Model for Sickle Cell Disease
Tracy C. Shields, Information Specialist, Knowledge Management, Eskind Biomedical Library; **Adeola R. Davis,** Project Manager, Department of Pediatric Sickle Cell Disease; **Michael DeBaun,** Professor, Vanderbilt Meharry Center for Sickle Cell Disease Excellence; **Nunzia Bettinsoli Giuse, FMLA,** Assistant Vice Chancellor, Knowledge Management, Director, Eskind Biomedical Library, and Professor; Vanderbilt University Medical Center, Nashville, TN
Objectives: To advance an institutional effort aimed at establishing a medical home model for children and adults with sickle cell disease (SCD). For this collaboration, we have facilitated targeted strategies focused on increasing genetic literacy for sickle cell trait testing, counseling, and communication about the importance of the medical home.
Methods: Knowledge Management/Eskind Biomedical Library (KM/EBL) plays a key role in an innovative medical home model, one of the institutional efforts supporting children's health and treatment of chronic diseases, including SCD. The medical home model brings together clinicians to provide family-centered care in addition to educational resources and personalized care under one roof. However, for patients and their families to fully benefit from the educational materials about SCD, presentation of core genetic concepts in a consumer-friendly format is essential. This library team proactively collaborates on enhancing understanding of SCD by creating consumer-appropriate educational materials, thereby contributing to the efficient use of the medical home. Using health and genomic literacy concepts and information expertise, the information scientist team contributes to enhancement of health content essential for management for the chronic ailment, SCD, and thereby empowers patient partnership.
Results and Conclusions: Important consumer information created via the collaborative effort of KM/EBL and clinicians empowers patients with knowledge about SCD. Advances in collaborative care with the use of the medical home model are becoming more common in the health care arena. Health literacy, numeracy, e-health literacy, learning styles, and a variety of other factors play a role in comprehension of critical health knowledge, and librarians and information professionals must be well prepared to meet these challenges. KM/EBL involvement and

expertise is pivotal to multiple key institutional patient education efforts. As chronic diseases such as SCD are increasingly managed through a medical home model, health communicators must be knowledgeable about ensuring information presented to consumers is at an appropriate level. Multiple studies have shown that engaged patients who are true partners with their healthcare providers have better health outcomes. Personalized health information tailored to the literacy level and learning style is a critical component for empowering patients in their health care.

Dental Section

Information Support for Our Researchers and Their Partners in Global Settings

Cosponsored by Medical Library Education Section, Molecular Biology and Genomics SIG, International Cooperation Section

HCC, Level Three, Room 303

10:35 a.m.

Development and Implementation of Outcomes to Measure the Effectiveness of HINARI Workshops Δ

Lenny Rhine, FMLA, Coordinator, E-Library Training Initiative, Librarians Without Borders, Medical Library Association, Chicago, IL; **Michael Chimalizeni,** Assistant Program Director; **Blessing Chataira,** Program Officer; Information, Training and Outreach Centre for Africa, Centurion, South Africa; **Gaby I. Caro,** HINARI Technical Officer, WHO Library, World Health Organization, Geneva, Switzerland

Objectives: The objective is to evaluate the success of HINARI workshop participants in achieving various post-course outputs. We will examine what types of activities are completed and which are ranked as effective. These outputs are measures of the successful implementation of training on the institutional level, an indication of the cascading effect of the original instruction.

Methods: Since 2007, the Librarians Without Borders, Medical Library Association; Information Training and Outreach Centre for Africa; and the World Health Organization have jointly conducted HINARI "train the trainers" workshops in eligible countries throughout the world. The authors are developing a checklist of post workshop outputs that would include number of workshops conducted; number of one-to-one trainings completed; number of presentations made to faculty, students, researchers, or colleagues; number of discussions with administrators (e.g., department heads, deans, graduate coordinators); training materials used; number of marketing activities; and so on. The participants also will rank the effectiveness of these activities. This checklist will be distributed at future workshops starting in February 2013. We will explain that follow up checklists will be sent six and twelve months after the workshop and that we will request detailed responses to the questions in the checklist.

Results: As of January 2013, there are no results as we are developing the output tool. We will deliver a summary of outputs that are tabulated before the presentation.

Conclusions: We will draw tentative conclusions if we have sufficient data from initial results.

11:01 a.m.

One Health: Does a New Approach Need New Information? Δ

Isobel Hoskins, Co-Editor, Global Health Database, Content Management; **Paul Day,** Marketing Manager, Publishing; **Wendie Norris,** Co-Editor, Global Health Database, Content Management; **Sarah Hulbert,** Comissioning Editor; **Rachel Cutts,** Commissioning Editor; **Robert Taylor,** Head, Veterinary Market Development, Publishing; CABI, Wallingford, United Kingdom

Objective: Awareness and engagement with One Health in the public health community is not well known. This study aimed to investigate awareness of One Health among public or global health practitioners and academics and the information needs of those who take this approach.

Methods: Academic librarians, veterinarians, and public and global health workers were surveyed in 2012 via questionnaires, structured interviews, and group discussions. Initially, attendees at librarian conferences and the World Congress on Public Health were questioned. Electronic surveys were then sent to 7,500 authors identified via the Global Health and CAB Abstracts databases. Interviews were also held with members of the professional groups above who had some knowledge of One Health. The questionnaires and interviews examined understanding of One Health, the areas of interest, and the need for resources.

Results: Initial responses from librarians indicated that One Health was recognised by veterinary librarians, but most public health librarians had not heard the term. Amongst public health practitioners, there was more awareness, but it was still low. When it was explained to them, most could see the relevance of One Health. One hundred twelve completed questionnaires were received, and twenty interviews held. Respondents had different ideas about what One Health meant. Generally, veterinarians used it to talk about the interfaces between human and veterinary medicine. Public health workers used it to describe a holistic approach to human health, using multidisciplinary approaches including veterinary medicine. Questionnaire responses indicated that emerging diseases and environmental health were the most interesting areas of One Health for public health practitioners, while veterinarians focused on emerging diseases and zoonoses. Respondents identified reference materials and summarised information as most useful to them in this subject. A need for examples of a One Health approach was also expressed. Respondents did not express a need for a specialist bibliographic database, but finding material in existing databases was considered difficult by some.

Conclusions: Awareness about One Health is low amongst public health professionals, and what they see as One Health is broader than definitions coming from veterinarians. In both disciplines, emerging diseases is the area of most interest. Examples of use, reviews, and articles summarising information are needed, and these would help people new to the idea understand the approach. Identifying articles on One Health can be difficult. Indexing terms in bibliographic databases could help if problems with the definition could be overcome.

11:28 a.m.

Transdisciplinarity and Its Relevance to the Global Health Information Systems of the Future Δ

Henri A. Verhaaren, Professor and Doctor, Biomedical Library and Department of Pediatrics, Ghent University and Ghent University Hospital, GHENT, Belgium

Objectives: Development of knowledge is expanding over the borders of any given discipline. Research and education are increasingly dependent on transdisciplinary environments. Therefore, information relating to all fields of science should be easily and continuously at hand to all. How can we provide researchers and educators with information systems and structures encompassing all disciplines and knowledge fields?

Methods: In 2001, the author, pediatric cardiologist and member of the university staff, was appointed to transform the library from a print library into an interactive, digitally empowered information center to logistically enhance the integrated modular medical curriculum and the expanding research by the medical faculty and the third-level teaching hospital. The information needs of the reconstructed medical curriculum and of the research groups were monitored over the years. Over this period, a major shift was observed from multidisciplinarity to transdisciplinarity. Therefore, the digital information system of the medical faculty was constructed within the framework of the university digital library, and not at the medical sciences level. This integrative and transdisciplinary approach to knowledge revealed the factors to build a better information environment for the future. However, additional policy changes will be needed at interinstitutional, country, continent, or global levels.
Results: The results of an integrated multidisciplinary information system are expressed in better educational results and in higher quality research outputs. The major outputs of our analysis lie in the development of recommendations for the future.
Conclusions: Some major conclusions are:

- Avoid "incomplete" academic learning environments. Institutions should encompass all major disciplines.
- If monodisciplinary institutions, such as autonomous medical schools or universities, to adequately train their students and develop relevant research, they will need to offer at least multidisciplinary information resources.
- The organisation of information and knowledge distribution in our societies will need cooperation at the level of multiple institutions, and national, multinational, or global collaborative structures are required.

Educational Media and Technologies Section

One World: Online Education

Cosponsored by Medical Library Education Section, Libraries in Curriculum SIG

HCC, Level Three, Room 310

10:35 a.m.

From Lectures and Workshops to E-Learning Initiatives to Teach Literature Searching and Referencing to Health Sciences Students and Teachers in India

Vasumathi Sriganesh, Chief Executive Officer, Training; **Parvati Iyer,** Director, Projects; **Dipti Suvarna,** Information Manager; QMed Knowledge Foundation, Mumbai, India

Objectives: We aim to tackle the lacuna in the knowledge of structured literature searching and referencing in medical education and research in India. We have conducted workshops in several parts of the country. We have had several requests for e-learning initiatives and are now initiating these using Moodle. We are working at getting the courses accredited.
Methods: We are creating e-learning modules using the open source software, Moodle. Courses will include "Understanding Information Resources", PubMed, the Cochrane Library, and similar resources that students and professionals use. Every course will have teaching modules and tests. We are getting those who we train, especially student volunteers, to create examples and quiz questions from different health sciences streams, so that there is a wide variety of questions. Moodle allows us to juggle questions, so that different quizzes can come up for different participants. The courses and quizzes will initially be open to participants from India, especially for those in remote places who cannot attend our workshops or cannot pay for us to travel and offer them in their cities or towns. We hope to reach out very specially to students of all streams of health sciences.
Results: The first course we created remains in the development stage only because there was an interesting turn of events for us. We were increasingly invited to deliver more workshops and lectures on literature searching and reference management and even succeeded in getting initial funding for these. Our Moodle project is more or less where we began. However, participants of our workshop are very excited at the thought of having e-learning modules accessible to them for regular learning and practice.
Conclusions: The authors feel that this is a rare case of what seems like a negative result that is very positive too. While we were unable to do much with our e-learning initiatives, the seeds sown for them to be successful seem to be very strong and will make a large difference to our audience.

10:55 a.m.

Transforming Traditional Informatics Sessions into Curriculum-Integrated Online Learning Modules: Two Case Studies from an Academic Health Sciences Library

Mark P. MacEachern, Liaison Services Librarian; **Whitney Townsend,** Liaison Services Librarian and Coordinator, Health Sciences Executive Research Service; **Irina Zeylikovich,** University Library Associate; Taubman Health Sciences Library; **Stephen C. Bayne,** Marcus L Ward Professor, Dentistry, and Professor, Dentistry; **Mark Fitzgerald,** Associate Professor, Dentistry; Department of Cardiology, Restorative Sciences, and Endodontics; **Rajesh S. Mangrulkar,** Associate Dean, Medical Student Education; University of Michigan–Ann Arbor

Objectives: To describe the rationale behind and experience of transforming first-year evidence-based dentistry and medical informatics courses to an online format.
Methods: During the past two academic years, librarians and subject faculty at a large Midwestern university collaborated to transform two traditional courses into online experiences. In one example, a didactic evidence-based dentistry (EBD) course was reconstituted as a set of twelve online modules that were embedded into the school's intranet site, opening up the EBD content to all clinically active faculty and students, regardless of their enrollment status in the course. In the second example, a team of librarians and medical education faculty transformed two first-year hands-on sessions into two optional sessions, supplemented by an expanded set of online tutorials, to provide students with more control and flexibility over their learning. Both course redesigns were implemented as responses to student and faculty feedback.

11:15 a.m.

Going the Distance: Translating Library Support to a New Online Graduate Nursing Program Δ

Michele Malloy, Research Services Coordinator; **Grant Connors,** Interdisciplinary Support Librarian; **Sarah Cantrell,** Education Services Coordinator; Dahlgren Memorial Library, Georgetown University Medical Center, Washington, DC

Objectives: Following strong involvement in traditional nursing educational programs, the health sciences library was asked to contribute to the new online graduate programs, including provision of reserves and resources, development of tutorials targeting research and evidence-based practice, and support of educational administration. This presentation provides an overview of ser-

vices offered and evaluates library support through feedback from faculty, administrative staff, and students.
Methods: Initially, the nursing liaison librarians were approached by the online nursing faculty and administration for help with reserves and copyright concerns. We were then invited to produce course-integrated modules focusing on skills for research and evidence-based practice. The success of these initial offerings led to provision of faculty training and shared selection of online resources, as well as student-focused online live guest lectures and development of modular tutorials that can be embedded in all applicable courses. Additionally, during on-campus intensive sessions for the various graduate specialties, librarians were asked to participate in instruction for clinical preparation. In conjunction with the online course interface, a social group for "Library & Research Support" was created in the course management system and provided a forum for interaction. In order to provide research consultations, web conferencing software was enabled for both group and individual meetings.
Results: Informally, students, faculty, and administrative staff expressed appreciation of and support for library efforts in the online program. By continually soliciting feedback from users, librarians were able to tailor services to match the needs of our distance population. To measure our impact and determine future needs, we offered two short surveys designed to target specific needs assessment and evaluation. One focused on support for faculty and administrators during course building and the other examined student information literacy and development of research skills.
Conclusions: By building on relationships and knowledge from traditional academic nursing programs, librarians were able to respond to the needs of distance learners and integrate new methods of meeting user needs. The library reacted to the expanding program by involving more staff in liaison team support and integrating technology solutions for distance learners, while maintaining personal service and support.

11:35 a.m.
Evaluation of Best Practices in the Design of Online Evidence-Based Practice Instructional Modules Δ
Suzanne Shurtz, AHIP, Assistant Professor and Instructional Services Librarian; **Margaret Jane Foster,** Assistant Professor and Systematic Reviews and Research Services Coordinator; **Catherine Pepper,** Assistant Professor and Library Field Services Coordinator; Medical Sciences Library, Texas A&M University–College Station
Objectives: To determine criteria of effective evidence-based practice (EBP) online instructional modules in order to develop an evaluation matrix to assess available modules.
Methods: Academic medical librarians supporting a health sciences center were charged with locating and/or designing EBP online modules to be integrated into dentistry, medical, nursing, pharmacy, and public health curricula. The literature was searched for best practices in teaching EBP and in developing online modules. An evaluation matrix, based on findings from the literature, was created with criteria divided into five main categories: format/source, content, design/learning objectives, interactivity, and usability. Currently available online EBP modules were located and assessed using the matrix. Each module was evaluated by two reviewers, and evaluation results were then analyzed to identify exemplary modules to integrate into curricula.
Results: Ninety-one modules were screened and 42 were evaluated, 28 by each author. Preliminary results showed the modules varied in overall quality with 8 modules labeled as high quality, 30 as average, and 4 as below average. The maximum points a module could receive is 38 points, with an average of 20 points. Module content averaged 5.3 (out of 7) points; design averaged 5.3 (out of 12) points; interactivity averaged 3.7 (out of 11) points; and usability averaged 6 (out of 8) points. Inter-rated reliability varied on questions from poor to moderate.
Conclusions: Best practices in online instruction of EBP can be discerned from a systematic evaluation of modules available on the Internet. Inter-rater agreement may vary on different measures, possibly depending on the raters' priorities and backgrounds. Inter-rater reliability could be increased by synchronous group evaluation of a sample set of modules prior to launch of the study.

Federal Libraries Section

The Role of Librarians in Evidence-Based Medicine: Part One

Cosponsored by Clinical Librarians and Evidence-Based Health Care SIG, Complementary and Alternative Medicine SIG, Department of the Army Command Libraries SIG, Informationist SIG, Libraries in Curriculum SIG, Osteopathic Libraries SIG, Translational Sciences Collaboration SIG

HCC, Level Three, Room 312

10:35 a.m.
Evidence-Based Medicine and the Reinvention of a Librarian's Role in a New Medical School Curriculum Δ
Abraham Wheeler, AHIP, Health Sciences Librarian, Health Sciences Group, Michigan State University–East Lansing
Objectives: This study looks at how a librarian's expertise in locating and evaluating evidence based medicine (EBM) literature can be effectively integrated into a medical school curriculum. Does embedding a librarian in a new role as a co-instructor in multiple classes across a four-year curriculum improve outcomes for students' skills in clinical decision making?
Methods: Traditionally taught as a discrete one-time lecture, EBM is going to become integrated longitudinally and holistically throughout the drastically revised four-year medical school curriculum at a large university college of medicine. The librarian was invited to help in this reinvention of the student experience. Even though the revision is just beginning, the librarian has already been co-teaching two courses alongside clinical faculty. The librarian helped build portions of the courses related to critical thinking about the medical literature, graded student work, and facilitated classroom discussions and debates. Throughout the classes, the success of students' learning of EBM and research methodologies were measured by performance on assignments and journal clubs, which were a significant portion of their overall grades. Student evaluations, focus groups, and program evaluations will also be used to measure impact.
Results: My results are not complete yet.
Conclusions: The new curriculum has just started, so the results are ongoing and developing at the moment. Despite limited student feedback, the early results have been very encouraging. Preliminary feedback shows an increase in student self-reported understanding of and knowledge about EBM in clinical medicine. The increased presence of EBM and the librarian in the curricu-

lum has also increased students desire to use EBM literature in their clinical decision making. These preliminary results are encouraging and validating the medical schools decision to increase the presence of the librarian in the curriculum.

10:55 a.m.

Embracing New Roles: How Librarians Can Encourage and Support Clinicians and Health-Related Researchers to Improve the Quality of Published Research Papers

Shona Kirtley, Research Information Specialist, EQUATOR Network, Centre for Statistics in Medicine, University of Oxford, Oxford, United Kingdom

Objectives: Librarians support health care professionals undertaking research. This involvement provides a unique opportunity to influence the quality of future research. Poor reporting of research studies is a serious and widespread issue, and reporting guidelines have been developed to address this. This paper highlights the EQUATOR Network and outlines an exciting new role for librarians in improving health research literature.

Methods: The EQUATOR Network is an international initiative seeking to improve reliability and value of medical research literature by promoting transparent and accurate reporting. EQUATOR's online library (www.equator-network.org) provides a unique "one stop shop" for researchers writing up studies. Research poorly reported in publications seriously distorts available evidence, limits its transfer into practice, and provides an unreliable basis for clinical decisions and further research. Good reporting is part of responsible research conduct, and it is essential that health scientists are informed about reporting guidelines and educated in their use. Librarians are excellently positioned to raise awareness of these guidelines and encourage their implementation through targeted promotion, education, and researcher support. We will outline opportunities and provide examples from our international activities and Pan American Health Organization (PAHO) collaboration.

Results: The EQUATOR Network is working toward engaging librarians in improving poor research reporting. Our collaboration with PAHO includes working with the Biblioteca Regional de Medicina (BIREME) and Virtual Health Library (VHL). We plan to establish and build an international librarian network and develop a programme of activities that will include a librarian toolkit providing librarians with practical "how to" information and resources to help them to raise awareness of reporting guidelines amongst the clinicians and health researchers with whom they work. We also plan to establish a series of webinars providing both support and training to librarians. We are keen to encourage librarians from around the world to become involved to ensure that the network, toolkit, and other resources are useful, practical, and relevant.

Conclusions: Librarians can play a fundamental role in improving the quality of health research literature. Simply by raising awareness of reporting guidelines and encouraging their use, librarians can influence the practical implementation of these guidelines in the research papers being written by the clinicians and health-related researchers with whom they work. With further development of our librarian network and toolkit, we hope to encourage librarians worldwide to promote reporting guidelines in their organisations, thereby playing a central role in improving the quality and subsequent usability of published health research.

11:15 a.m.

Telling the Research Story: A Role for Librarians in Analyzing Research Impact Based on Evidence

Terrie Wheeler, Chief, Education Services Branch, Division of Library Services, National Institutes of Health, Bethesda, MD; **Cathy C. Sarli, AHIP,** Scholarly Communications Specialist, Bernard Becker Medical Library, School of Medicine, Washington University in St. Louis, St. Louis, MO

Objectives: Quantifying the diffusion of research efforts is one example of transforming traditional library service models. Capturing and reporting research outcomes is beneficial for benchmarking group or individual performance; justification for project funding renewal; identification of meaningful health outcomes; documentation of translational research outcomes; and quantifying the return on research investment; as well as reporting outcomes to the public.

Methods: Librarians are transforming traditional services by performing assessment activities to quantify research impact. Traditional literature searches are being supplemented with bibliometric methods of analysis to assess performance and impact of a research group or individual investigator. Collaborations of librarians or informationists with research groups foster the development of the librarian or informationist role in research assessment activities. Frameworks of research outcomes are being utilized to identify qualitative outcomes not discernible using publication data for quantifying and reporting meaningful health outcomes. This paper will report on three projects assessing research impact undertaken by informationists or medical librarians. These projects will help participants gain an understanding of how traditional service models can be supplemented with innovative and customized services using commonly held library tools.

Results: Librarians and informationists conducted *ex post* evaluation review of biomedical research studies and topics to assess impact of research. Outcomes, both intended and unintended, related to the research project or topic were examined to confirm correlation and to demonstrate how the outcomes were produced. Outcomes were further documented for reporting purposes.

Conclusion: Assessment services represent prime opportunities for libraries to demonstrate transformative service models by leveraging commonly held library resources and developing innovative tools. Not only are libraries able to perform traditional services such as generating publication reports for an individual investigator or research group, but also taking the next step of telling the story of the research itself. Librarians and informationists are able to leverage their expertise to provide a comprehensive repertoire of assessment services that other libraries can emulate.

11:35 a.m.

One Goal: Faculty-Librarian Collaboration to Create a Curriculum to Increase Internal Medicine Residents' Knowledge, Skills, and Comfort with Evidence-Based Medicine Δ

Ellen M. Justice, AHIP, Community Health Librarian, Junior Board Cancer Resource Library, Helen F. Graham Cancer Center; **Roy L. Kao,** Assistant Chief, Service, Department of Medicine; **Ene Belleh,** Medical Librarian, Lewis B. Flinn Medical Library; **Sharon Easterby-Gannett, AHIP,** Associate Director, Lewis B. Flinn Medical Library; **Daniel J. Elliott,** Faculty Physician, Department of Medicine; Christiana Care Health System, Newark, DE

Objectives: To highlight how the librarians at a 2-hospital, 1,100-bed community-based health care system that trains over 200 residents increase their knowledge of evidence-based medicine (EBM) concepts, serve as instructors of EBM concepts, and how that led to a faculty-librarian collaboration to develop and teach an EBM curriculum for the internal medicine residency program.
Methods: Librarians take workshops to learn EBM. They are involved in creating and teaching EBM sessions. Increased expertise in EBM has led to the development of a two-week, dedicated EBM block rotation for residents. The chief resident, faculty member, and librarians collaborate to create the curriculum. It includes limited didactics emphasizing hands-on sessions to teach literature searching, critical appraisal, and independent study time. The librarians use JAMAEvidence to create an online curriculum to support the objectives of the rotation. At the conclusion of the rotation, each resident presents a critically appraised topic. Residents' EBM knowledge and skills are assessed with the validated Fresno test at the beginning and end of the rotation and are similarly rated on comfort with EBM resources on a Likert scale. We compare pre- and post-test scores and confidence survey results.
Results: Since 2011, twenty-three residents have completed the EBM curriculum. Residents' pre- and post-test scores improved. Significant improvement was demonstrated in forming questions, creating search strategies, appraising an article's relevance, and calculating and understanding biostatistics. Confidence ratings on a Likert scale significantly improved in defining a question; searching and using Medical Subject Headings (MeSH) terms, advanced limits, and subheadings in Ovid within a reasonable amount of time; and conducting a literature review and presenting it to a wider audience. Residents also rated their comfort with EBM databases significantly higher.
Conclusions: The findings demonstrate that a comprehensive, dedicated EBM block rotation utilizing a faculty-librarian partnership can be effective in improving residents' knowledge, skills, and comfort levels in the four steps of EBM.

Leadership and Management Section

Collaborations for Health

Cosponsored by History of the Health Sciences Section, Medical Library Education Section, Technical Services Section, Libraries in Curriculum SIG, Outreach SIG, Osteopathic Libraries SIG, Veterinary Medical Libraries Section, International Cooperation Section

HCC, Level Three, Room 311

10:35 a.m.
Contributing Knowledge Management Expertise to Support a Personalized Medicine Cancer Center Innovative Effort
Taneya Koonce, Associate Director, Research, Knowledge Management, Eskind Biomedical Library; **Adeola R. Davis,** Project Manager, Department of Pediatric Sickle Cell Disease; **Mia A. Levy,** Assistant Professor, Department of Biomedical Informatics and Department of Medicine; **William Pao,** Associate Professor, Department of Medicine, Department of Cancer Biology, and Department of Pathology, Microbiology and Immunology; **Mary Beth Bauer,** Pharmacogenetics Information Scientist, Knowledge Management and Eskind Biomedical Library; **Nunzia Bettinsoli Giuse, FMLA,** Assistant Vice Chancellor, Knowledge Management, Director, Eskind Biomedical Library, and Professor; Vanderbilt University Medical Center, Nashville, TN
Objectives: To describe a strategy for providing pharmacogenetic evidence and leveraging library and knowledge management skills to aid the refinement and expansion of a decision support tool for personalized cancer treatment.
Methods: Recently, a freely available online resource, My Cancer Genome (MCG), began providing information regarding specific tumor mutations and their relationships to cancer therapy. This decision support tool facilitates patient-specific, genetically driven treatment considerations. The knowledge management team at the Eskind Biomedical Library was invited to provide pharmacogenetic information consult services for the project. Information specialists worked with oncologist authors to generate current evidence for specific gene mutations. The team applied sound library knowledge management principles designed to aid in the development of the process for content expansion and future maintenance of its knowledge base. By detailing facets of this collaboration, the team created a knowledge management framework of reference for biomedical libraries interested in similar efforts and devised a strategy for further internal collaboration.
Results and Conclusions: The team provided ten detailed evidence packets for mutations in colorectal cancer, third in the most common cancers worldwide. In addition to an overview summary and list of references, the packets provided detailed search strategies that combined the structural genetics and pharmacogenetic expertise of the team, thus providing the opportunity for future additions and maintenance of content. This effort provided great insight on the type of skills and competencies required for a professional interested in effectively impacting and collaborating on a highly renowned personalized medicine initiative. This framework not only benefited the My Cancer Genome team, but gave a clear demonstration of how skilled librarian personnel could actively contribute to the overall knowledge of a clinical oncology group of experts. Due to the success and demonstration of competencies of this intervention, a next step collaboration was agreed upon by both the librarians and My Cancer Genome oncologist authors. The Eskind Biomedical Library is currently planning to adapt data and knowledge acquired through a recently completed health literacy project to a new less-explored genetic literacy-driven environment. As information in the My Cancer Genome database is viewed worldwide not only by researchers and clinicians, but by patients and health care consumers, the need for genetic literacy considerations is clearly increasing. This newly defined project will include the content outlining melanoma and non-small cell lung cancer present in the My Cancer Genome database as these two conditions allow for a literacy investigation with two distinct patient populations for diseases with actionable standard-of-care genetic therapy options.

10:55 a.m.
Taking Translational Science to the Community: Working with Community Health and Research Organizations
Pamela L. Shaw, Biosciences and Bioinformatics Librarian, Galter Health Sciences Library, Feinberg School of Medicine, Northwestern University, Chicago, IL
Objectives: How do we translate translational science? Institutions with Clinical and Translational Sciences Awards (CTSAs) are required work with community-based organizations in order to speed the translation of research from bench to clinical practice. Many community health groups are not equipped with information skills on a level with university researchers. Librarians are perfectly suited to bridge this information gap.

Methods: The liaison librarian to the university's CTSA planned a series of sessions on information seeking, genetic literacy, and bibliographic management. These sessions were presented to leaders and employees of community-based health and health research organizations. These sessions lasted from 1 to 1.5 hours and were developed to begin at a basic level and increase in complexity. Before the sessions, only 2 of the community representatives had even heard of PubMed, and few of them knew where to find consumer- or expert-level genetic information. Most users were struggling with finding and evaluating information using Google as their only search interface. Users were taught how to search for and evaluate information in PubMed and Google Scholar, how to search Web of Science, how to manage reference libraries, and how to find appropriate genetic information.
Results: This is not a research paper, so results are not applicable. However, evidence of the community groups' information-seeking skills was evident at the medical school's Research Day celebrations, when the community outreach group was awarded a prize in the poster competition for work that they did utilizing information-seeking skills that they gained from interactions with the library.
Conclusions: Working with community health and research groups is rewarding but requires patience and understanding. Some community-based representatives have information and computer literacy skills that are below those of a college undergraduate. Librarians may find themselves doing equal amounts of information education and computer document management support. Lessons learned from training community partners include (1) never assume your audience knows about even the most basic health information resources; (2) make yourself available for follow-up questions; and (3) take an active interest in the results of community-based research in order to strengthen the relationship between library, CTSA, and community-based health partners.

11:15 a.m.
Building and Sustaining Global Health Partnerships, One Country at a Time
Anne K. Seymour, Associate Director, Biomedical Library, University of Pennsylvania–Philadelphia; **Dineo Ketshogileng,** Senior Librarian, Faculty of the Health Sciences, University of Botswana Library, University of Botswana, Gabarone, Botswana; **Carlos Rodriguez,** Head, Patron Services, Biomedical Library, University of Pennsylvania–Philadelphia; **Barbara Bernoff Cavanaugh,** Associate Director, Health Sciences Libraries, and Director, Biomedical Library, University of Pennsylvania–Philadelphia
Objectives: Describe the global engagement activities of the Biomedical Library at the University of Pennsylvania and its collaborations with internal university and external institutional partners. Present on key research and education projects as well as best practices for successful global health partnerships.
Methods: Describe global health initiatives at the University of Pennsylvania and expanding involvement of the Biomedical Library. Present highlights of library projects in collaboration with global partners in two developing countries (Botswana and Guatemala) addressing the information needs for evidence-based patient care, medical education and research in the underserved and under-resourced environments. Strategies for funding and developing innovative and sustainable programs will be discussed. The successes and lessons learned in building partnerships between diverse organizations will be reported. Future plans resulting from these partnerships will be presented.

11:35 a.m.
You Say Tomato, I Say *Solanum Lycopersicum:* Teaching Communication Skills to Basic and Clinical Researchers
Marisa L. Conte, Translational Research Liaison, Taubman Health Sciences Library, University of Michigan–Ann Arbor
Objectives: Strong communication skills are essential for basic and clinical researchers, especially in the current environment, which emphasizes translational research and interdisciplinary team science. Interpersonal communication skills, including networking, are often not part of scientists' formal or informal training. This paper highlights a collaborative pilot project to train scientists in different techniques for formal and informal interpersonal communication.
Methods: This pilot project involved a collaboration between a librarian, medical school faculty, and a translational research institute to plan and execute training events. Multiple sessions were conducted to engage clinical and basic researchers in various forms of communication skills-building exercises. This talk will highlight three models for teaching casual and formal communication skills: speed networking: a timed, pair-wise discussion to facilitate introductions and collaborations; reciprocity ring: a structured exercise based on the principle of generalized reciprocity, where participants made personal and professional requests of their cohort and filled their colleagues' requests; elevator pitch: training researchers to develop a brief, targeted message for a specific audience and deliver it effectively. The logistics, strengths, and weaknesses of each model will be discussed, and specific outcomes of the collaboration will be shared.

Public Services Section

Integrating Our Expertise: Engaging Our Partners in Resources at the Bench or at the Point of Care

Cosponsored by Federal Libraries Section, Medical Library Education Section, Medical Informatics Section, Molecular Biology and Genomics SIG

HCC, Level Three, Room 313

10:35 a.m.
Integrating Patient Education across the Continuum of Care: Linking Materials to the Electronic Medical Record, the Public Website, and Internal Resources and Tools
Ruti Volk, AHIP, Patient Education Librarian, Patient Education Center, University of Michigan Health System–Ann Arbor
Objectives: In a large health system, patient-education is provided in different care-settings: outpatient clinics, inpatient units, and institution's public website. Users in different care settings require different access methods to enable quick and efficient retrieval. The institution also needs to ensure that materials are reviewed and approved, meet quality standards, and are consistent in all parts of the health system.
Methods: The librarian partnered with clinicians, information technology (IT), and marketing professionals to create customized access points to a database of patient-education materials created or endorsed by faculty and staff. The access points are tailored to fit the workflow of clinicians in specific units and clinics. The system enables linking materials directly to the electronic medical record (EMR), so they are easily accessible to ambulatory care clinicians, and their utilization can be counted for meaningful use purposes. The same materials are also linked to internal resources used by inpatient clinicians as well as to the institution's public website, where they are available for patients

at home. This is a cost-effective model as governance and quality control of materials is done centrally for all users and client systems. It ensures quality and consistency of education provided to patients across the continuum of care and strengthens the organization's brand and identity.
Results: As of December 2012, the database includes 2,277 materials. Five hundred nineteen handouts were converted to SmartText format and uploaded to the EMR system; 1,019 materials are linked to the public website. Thirty sections were created for specific work areas. Traffic on site has been increasing, almost doubling between fiscal year (FY) 2010 and FY 2012. Despite the progress, the system still has gaps, and some departments and units that have not yet deposited materials to the database.
Conclusions: A central repository of patient-education materials enables streamlining access and eliminating duplication of materials. Central governance of materials promotes consistency with minimum effort. The biggest challenge is changing attitudes of clinicians and educating them about the benefits of using an electronic resource rather than paper-filled drawers.

10:55 a.m.
A System for Interdependency: A Quality Improvement Study Δ
Aislinn Conway, Clinical Evidence Based Information Service Specialist, Clinical Sciences Library, University Hospitals Coventry and Warwickshire, Leamington Spa, United Kingdom; **Jacqui LeMay,** Head, Knowledge Services, Clinical Sciences Library, University Hospitals Coventry and Warwickshire, Walsgrave Coventry, United Kingdom
Objectives: This study aims to demonstrate the quality improvement process of a new information and communications technology (ICT) system linking the patient e-record to evidence-based information. This service will facilitate clinicians in decision making to help improve patient care and the patient experience. The objectives are to identify aspects of the system that work most effectively, user groups for whom the system works best, and the optimum circumstances under which it works. Aspects of the system that are not effective will be pinpointed and explored.
Methods: A quality improvement study was conducted on a sample population of clinical staff at a large acute teaching hospital in the United Kingdom. The exposure under investigation is access to the system that is administered by library and knowledge services for a period of six weeks. Qualitative outcomes are assessed using a combination of semi-structured interviews and focus groups. Activity on the discussion forum is discussed, and prespecified quantitative outcomes will be reported to track changes in patient care. Standards for Quality Improvement Reporting Excellence (SQUIRE) guidelines were followed to ensure the study is of a high standard. Implementation and evolution of the initial plan, and lessons learned are discussed. The main emphasis of this study is to learn how best to evaluate the system to continuously improve the service for the future in health care at our institution.

11:15 a.m.
An Interdisciplinary Collaboration to Design a Next-Generation, Evidence-Based Radiology Report
Jonathan B. Koffel, Clinical Information Librarian, Bio-Medical Library; **Brent Backhaus,** Department of Radiology; **Kenny Shores,** Research Assistant, Computer Science and Engineering; **John Riedl,** Distinguished McKnight Professor, Computer Science and Engineering; **Joseph A. Konstan,** Distinguished McKnight Professor, Computer Science and Engineering; **Dan Steinberger,** Assistant Professor, Department of Radiology; **Terry Adam,** Assistant Professor, College of Pharmacy, Pharmaceutical Care and Health Systems; University of Minnesota–Minneapolis; **Brandon Maus,** Student, Macalester College, Saint Paul, MN
Objectives: Almost every patient admitted to the hospital receives imaging, and this imaging helps to confirm a diagnosis, suggest a treatment, or determine the prognosis. The imaging reports, however, often leave many unanswered questions. This paper will discuss a collaboration to develop a new radiology report that includes imaging and dynamically generated links to the best evidence.
Methods: The development team was composed of a librarian, radiologists, informaticians, computer scientists, and primary care physicians. We began by examining a large corpus of existing radiology reports and designed a system that could automatically identify the core concepts in each. We designed a set of custom search strategies and filters to hit against article databases and synthesized sources and return a selected list of high-value sources for each concept. Users are then able to rate the information value of the sources, and these ratings are used to improve the quality of the results. The system is capable of enriching a radiology report with annotated images and links to the best evidence with little to no human involvement.

11:35 a.m.
Reverse Information Specialists in Context? Bringing Users Back into the Library by Creating Research and Innovation Centers and Customized Support and Tools
Jean P. Shipman, AHIP, FMLA, Director; **Peter Stevens Jones, AHIP,** Research Concierge and Informationist, Center for Clinical and Translational Science; **Abby L. Adamczyk, AHIP,** Research Librarian; **Joan Marcotte Gregory, AHIP,** Associate Director, Information Resources and Facilities; **Joan M. Stoddart, AHIP,** Deputy Director; **Shelli King,** Administrative Assistant; Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City
Objectives: To serve Clinical and Translational Science Award (CTSA) researchers and innovative teams by providing shared physical and virtual workspaces and access to a variety of relevant customized resources, services, and tools.
Methods: Collaborative space and portals were built to enable researchers, university committees, and innovation teams to interact and share knowledge, as well as to access needed resources, services, and tools. Needs assessments were conducted via surveys and focus groups. To assess physical space needs, input was gathered from various key stakeholders. Funding was obtained to develop an open source portal and to support a research concierge/informationist. A suite of research support services was packaged and added as a research core.
Results: Physical collaborative spaces for various teams are located in the library, adjacent to one another and a computer training facility. CTSA administrative staff (CCTS), an interprofessional student group, and innovation center staff are colocated, enabling the sharing of ideas and convenient delivery of information services and resources. People are coming back into the context, the library, to consult with librarians and one another, designating the library as the university's premier discovery hub. Statistics will be shared.

Conclusions: It is true that library collaborative virtual and physical spaces encourage the interaction of a variety of university personnel, not just library users. Placing the CCTS and the Center for Medical Innovation adjacent to each other has enabled the sharing of ideas and training support and the ability to cooperatively compete for extramural funding. A research concierge has enabled the further development of the MyRA/CCTS portals. Usage statistics and user comments indicate people do ask questions of a research concierge and that they appreciate being connected to others with similar research interests. The MyRA portal has expanded to serve all of the university and is backed by the university's office of research. This is transforming the research enterprise for the entire university.

Veterinary Medical Libraries Section

People, Animals, and the Environment: One Health Interactions and Perspectives that Enrich Our Lives and Our Work

Cosponsored by Institutional Animal Care and Use SIG

HCC, Level Three, Room 305

11:07 a.m.

Academic Health Science Librarians' Contributions to Institutional Animal Care and Use Committees Δ

Sheila L. Thomas, Research and Clinical Search Services Coordinator; **Susan C. Steelman,** Associate Professor and Head, Education and Reference Services; UAMS Library, University of Arkansas for Medical Sciences–Little Rock

Objectives: The purpose of this study was to gather data about the participation of academic health sciences librarians as members of institutional animal care and use committees (IACUCs) and their involvement with literature searches for US Department of Agriculture (USDA)-mandated animal use protocols (AUPs).

Methods: This study used a two-step survey procedure: 133 library directors who are members of the Association of Academic Health Sciences Libraries were contacted via email with a request to identify a librarian at their institution who is familiar with IACUC membership and support activities, and then an email message was sent to each identified librarian explaining the study and providing a link to the survey website. The survey questions included items about IACUC membership, AUP literature search assistance, feedback from various sources regarding librarians' participation, and the participants' own perceptions of positive and negative aspects of their IACUC efforts. Quantitative information was requested about the number of literature searches and search consultations for AUPs performed by all librarians for the past two years, as well as how many AUPs were reviewed by the IACUC during the same time period.

Results: After each of the 133 AAHSL email list contacts had been contacted twice, additional survey request emails were sent to the library director or other contact person at each American Association of Medical Colleges (AAMC) member institution for which such a person could be identified via the website. Out of a potential 155 responding libraries, we received 60 (39% response rate) surveys. Of those, 35 (58%) reported that 1 or more librarians performed database searches or other support for AUPs, and 22 (37%) reported that a librarian currently serves on the campus IACUC; all of these institutions were in the United States.

Conclusion: Almost all of the AAMC-accredited medical schools in the United States receive National Institutes of Health grant funding for animal-based research, yet only thirty-five survey respondents reported that librarians at their institution perform or support AUP database searches. USDA policy requires that AUPs document the principle investigator's "reasonable and good faith effort" to identify alternatives (the 3Rs), and recommends database searches as the "most effective and efficient methods for demonstrating compliance." The biomedical literature searching expertise of health sciences librarians is a valuable, though currently underutilized, resource for campus researchers.

10:35 a.m.

Of Mice and Men: Establishing the Library as a Partner in the Animal Care and Use Community

Marisa L. Conte, Translational Research Liaison, Taubman Health Sciences Library, University of Michigan–Ann Arbor

Objectives: This paper describes a librarian's efforts to integrate relevant resources and services into the animal care and use community, including veterinarians, graduate students, technicians, and researchers. This partnership has benefited animal welfare and established a new role for the library in the university's research enterprise.

Methods: The University of Michigan is home to a large animal use community and a graduate program in laboratory animal medicine; however, the library's collection and services had traditionally focused on human medicine. As a result, the library was not perceived to be relevant to the animal use community and was not well utilized either by researchers using animals or those responsible for animal care. This paper will present a variety of strategies used to develop relationships and integrate into the animal use community, including needs assessment and collection development projects, participation in the graduate veterinary medicine curriculum, alternatives searches, literature searches on animal welfare and enrichment topics, service on the institutional animal care and use committee, and special projects to develop information and training resources.

10:51 a.m.

One Health in One Historic Collection: The Historical Records of One Health as Exhibited in the John G. P. Wood Collection

Nancy Burford, AHIP, Veterinary Collections Curator, Medical Sciences Library, Texas A&M University–College Station

Objectives: To demonstrate the historical context and development of the modern One Health concept through a review of selected historical monographs from a single collection in human health, animal health, and agriculture.

Methods: The collection examined contains over 800 titles in human health, animal health, and agriculture. Subject and content metadata of collection items will be mined to identify potential items containing a One Health-related perspective. These include: Renaissance anatomical texts (and editions of earlier works), midwifery, *materia medica,* agriculture, animal husbandry, horsemanship, farriery, human anatomists working on animals, and conflicts between doctors or surgeons and working farriers or animal doctors. Items will be reviewed and annotated for One Health-related content. The resulting items will be analyzed by classification, publication place and date, author, and author's profession to look for patterns and trends in use and expansion of the One Health concept.

11:23 a.m.

Reaching out to Faculty: Leveraging Professional and Social Interactions to Meet Information Needs

Valerie E. Perry, Director, Branch Libraries, Agricultural Information Center, University of Kentucky–Lexington

Objectives: To apply the subject expertise of a life sciences librarian in serving the One Health information needs of the University of Kentucky College of Agriculture faculty and other researchers employing animal research protocols through professional involvement, education, and social activities.

Methods

Setting: A large research university with diverse use of animal research across the disciplinary faculties. Population: Researchers in the University of Kentucky College of Agriculture and those in the medical, social, and life sciences—such as dentistry, medicine, pharmacy, biology and psychology—who use animals in their research.

Exposure: Provide and promote information resources and services during 2010–2012 through a variety of activities including EndNote workshops, college of agriculture department chairs committee meetings and other university committee involvement, institutional animal care and use committee (IACUC) membership and presentations, protocol literature search support, LibGuides on animal welfare and other subjects, outreach and technology fairs, and social activities.

Results: My primary audience included faculty and research staff from fifteen academic units in the college of agriculture and the biological sciences department. In addition, I serve as a member of IACUC, which interacts with all researchers using animals throughout the university. A variety of proactive and passive methods were used to support all groups.

Conclusions: Creating LibGuides, conducting consultations and workshops, and exhibiting at on-campus events were the most effective methods for reaching animal researchers. Enhancements to be added might include improving methods for informal feedback and creating formal assessments. Future plans include training more library personnel to increase support of animal research at the University of Kentucky.

11:39 a.m.

Serving East African Bioethics Information and Education Needs Δ

Jere Odell, Scholarly Communications Librarian, University Library; **Kalli McBride,** Program Manager, School of Medicine; **Rick Ralston,** Assistant Director, Library Operations, School of Medicine; **Kacy Allgood,** Clinical Informationist, Department of Emergency Medicine, School of Medicine; Indiana University-Purdue University Indianapolis–Indianapolis; **Eunice Karanja Kamaara,** Professor, Department of Philosophy and Religious Studies, Moi University, Eldoret, Kenya

Objective: To identify the challenges of supporting the information needs of students and researchers participating in an international research ethics education practicum and exchange between universities in Kenya and the United States.

Methods: One component of a grant-funded international research ethics training partnership supports a six-week intensive practicum exchange program. Master's level students from Moi University, Eldoret, Kenya, travel to the Indiana University (IU) School of Medicine-Indianapolis. While at the IU School of Medicine, the Kenyan students use library services to prepare for a mentored research project. As an outcome of the project, students are expected to conduct an extensive literature search that will be used as a foundational component for a thesis that is completed in Kenya. An informationist is embedded in this program to support the information needs of faculty mentors and practicum students. This paper uses narrative reports and program evaluation data to identify the challenges of (1) providing information literacy education, (2) confronting resource inequities, and (3) supporting information needs across cultures and universities in two countries.

Results: Two cohorts of Kenyan students completed this practicum. The program leaders and librarians continue to adapt the information skills sessions to meet student interests and needs. Teaching has been a challenge because students demonstrate a wide range of technical sophistication. Some have extensive computing experience, but others struggle with Internet navigation, account authentication, and common technology skills. In the second cohort, the students worked well in pairs to find relevant research ethics materials while using the university's information portals and subscription resources. In both cohorts, students expressed a desire for a slower instruction pace and for additional sessions. Students were frequent customers for reference support. Librarians observed a preference for print monographs. While confirming a need for both print and electronic resources, practicum students have initiated a small and growing library of print materials for bioethics research at Moi University.

Conclusion: Teaching information skills to a small group of adult students with a wide range of educational experiences is a challenge when students are working in a new (information rich) environment. Student evaluations have expressed an appreciation for instruction customized to their interests and needs, a slow delivery style, and opportunities for one-to-one instruction.

ICLC 1 and ICAHIS 2

Monday, May 6, 1:30 p.m.–3:00 p.m.

International Clinical Librarian Conference (ICLC)

International Clinical Librarian Conference 1: Quality Assurance for Clinical Librarians, Informationists and Embedded Librarians

Cosponsored by Corporate Information Services Section, Public Services Section

HCC, Level Three, Room 310

1:35 p.m.

Starting from Scratch: Establishing a Role for an Informationist on Rounds Δ

Alison Aldrich, Clinical Informationist; **Stephanie J. Schulte,** Assistant Professor and Education and Reference Services Coordinator; Health Sciences Library, Ohio State University–Columbus

Objectives:

- To introduce the clinical team to the concept of an informationist
- To establish service and educational roles during rounds as a key component of a new clinical informationist program
- To improve the real-world evidence-based medicine (EBM) competencies of internal medicine residents

Methods: The Ohio State University Health Sciences Library created a clinical informationist position in the fall of 2011. The

informationist was assigned to work primarily with the internal medicine residency program, attending daily rounds with a general medicine inpatient service and responding to clinical questions in real time. This presentation will highlight challenges, successes, and lessons learned in the first year of rounding.
Results: In the first year, the informationist worked with 21 residents, approximately 16% of the total internal medicine residents on staff, in the context of rounds. She was consulted on 176 questions, about 50% of which were asked by attending physicians. Clinical staff and students who responded to a May 2012 survey indicated satisfaction with the informationist program. Seventy-eight percent reported that information or instruction provided by the clinical informationist enabled them to handle a clinical situation differently than they would have otherwise. However, in numerous informal conversations, residents reported being too overwhelmed with work to process the evidence returned by the informationist. Also, while they appreciated having searches done by the informationist, they were more concerned about becoming proficient searchers themselves.
Conclusions: Rounding with a clinical team is a good way to build relationships with residents and faculty and can positively impact education and patient care. Negotiating a meaningful role for the informationist requires time, flexibility, patience, and a realistic understanding of organizational culture. As the Ohio State informationist program continues into a second year, a focus will be on developing and refining strategies that balance service with teaching in the context of patient care delivery.

1:51 p.m.
The Impact of Library and Information Services on Patient-Care Outcomes: A Canadian Perspective Δ
Joan C. Bartlett, Associate Professor, School of Information Studies, McGill University, Montreal, QC, Canada
Objectives: The objectives are: (1) to determine the impact and value of all types of hospital-based library and information services (including clinical librarians) on patient-care outcomes, and (2) to explore how to best integrate information services at the point of care. This research complements prior value studies. The Canadian setting provides several distinctive features including the public health care system and a bilingual and geographically diverse population.
Methods: Data will be collected from hospitals representing both the linguistic and geographic diversity of Canada. All professionals providing patient-care (physicians, nurses, rehabilitation therapists, etc.) are eligible to respond to the web-based questionnaire. Following a modified critical incident technique, respondents will recall a time in which they needed information related to patient care and specify the type of information needed and how it was obtained. More importantly, the questionnaire will document the impact on patient care and specific outcomes. Indicators include improved patient-care outcomes (e.g., reduced length of stay, reduced cost) and avoidance of adverse events (e.g., misdiagnosis). Follow-up, semi-structured interviews with a subset of respondents will elaborate on the survey findings, particularly the link between information services and patient care outcomes, as well as how information services may best be linked to the point of care and/or the nascent provincial electronic health record systems.

2:07 p.m.
Converting Care to Currency: The Impact of UpToDate on Tests Avoided, Length of Stay, Time Saved, and Referrals Prevented in a Large UK Acute Hospital Trust Δ
Jane Surtees, Clinical Librarian, Library and Knowledge Service, Royal Derby Hospital, Derby, United Kingdom
Objectives:
- To assess usage of the resource as captured by a SmartSurvey feedback form;
- To collect quantifiable data on four main criteria: length of stay (LOS), tests avoided, prevented referrals to another department, and time saved;
- To turn the raw data into monetary value and projected cost savings;
- To predict the value of future use

Methods: Trust-wide promotion: placing advertisements on all Trust computers via central communications (6,500 PCs), posters, articles in staff magazine, live demonstrations, email signatures, and distribution lists. A survey feedback link was placed on the library intranet home page that took users to a SmartSurvey site, comprising 12 questions. One hundred seven users have so far submitted their feedback, with majority being consultants and a surprising number being pharmacists.
Results: Results to date:
- Mean LOS (days)=3.8=£630
- Mean time saved in hours=3.9=£312
- Referral prevention difficult to cost as more detailed information is needed; however, survey responses are indicating referrals are avoided;
- Less investigations or tests are difficult to cost as we are still awaiting the costs of the tests; however, the majority so far are imaging tests.

Conclusions: Overwhelming impact on time saved and thus the potential for high cost efficiency. This is endorsed by the data supporting reductions in LOS and respondents identifying prevented referrals and expensive tests avoided. As a standard medical/surgical bed costs approximately £252 per day, it is easy to see the savings to be made. The data do not just quantitatively support efficiency, responses indicate the use of this resource enabled clinicians to give better patient care and as an aid in teaching and supporting junior clinicians. Clinical decision support systems are increasingly becoming integral to optimal care and, if they can be shown to support efficiency and cost savings in the increasingly tight financial climate, as demonstrated here, then they will have more than paid for themselves.

2:23 p.m.
Measuring Value: A Survey for Assessing Our Impact Δ
Victoria H. Goode, Clinical Informationist; **Jaime Friel Blanck, AHIP,** Clinical Informationist; **Nancy K. Roderer, AHIP,** Director; **Lori Rosman,** Public Health Informationist; **Stella Seal,** Associate Director, Welch Services Center; **Sue M. Woodson,** Associate Director, Collection Services; Welch Medical Library, Johns Hopkins University, Baltimore, MD
Objective: This paper will present a replicable model for assessing the impact of library services on user behavior, while identifying the services most valued by clinicians, faculty, and researchers. This model enables library administrators to benchmark their results against similar institutions.

Methods: The assessment committee worked in conjunction with the library director and vice dean of education to identify areas where library services impact the work of clinicians, faculty, and researchers. The committee compiled examples of previous library assessment tools and used these to design a new tool tailored to its own medical campus. This survey incorporated the critical incident technique and consisted of twenty-two questions broken down into the following areas: information need and resources used, use of embedded librarian service and perceived benefits of this service, perceived behavioral outcomes and benefits to work as a result of the information received, and confidence in adequacy of literature searches. The survey was distributed to faculty, fellows, and housestaff/residents in the schools of medicine, public health, and nursing via email distribution lists and departmental intranet sites.
Results: Data gathered from the survey provided information about the types of information needs that drove patrons to interact with the library. Additionally, patron-reported benefits from interacting with the library included increased publication output, patient care, and support for grants. Respondents also rated library services, both current and desired.
Conclusions: Survey design was successful in gathering patron interaction with the library and can be used by other health sciences libraries for the same purpose to create a larger data pool for benchmarking purposes. Using the results of the survey, the library identified future steps to take to improve access and communication with patrons. The results drove the creation of several new collaborations between the library and the schools of medicine and public health.

2:39 p.m.
Providing Expert Collaboration for the Development and Implementation of Evidence-Based Practices
Rachel R. Walden, Librarian, Knowledge Management, Eskind Biomedical Library; **Jack Starmer,** Chief Quality Informatics Officer and Assistant Professor, Biomedical Informatics; **Robert Dittus,** Assistant Vice Chancellor, Public Health, Director, Institute for Medicine and Public Health, and Associate Dean, Population Health Sciences; **Zachary E. Fox,** Assistant Director, Knowledge Management and Eskind Biomedical Library; **Melissa McPheeters,** Director, Evidence Based Practice Center, and Research Associate Professor, Departments of Obstetrics and Gynecology and General Medicine and Public Health; **Tracy C. Shields,** Information Specialist, Knowledge Management, Eskind Biomedical Library; **Nunzia Bettinsoli Giuse, FMLA,** Assistant Vice Chancellor, Knowledge Management, Director, Eskind Biomedical Library, and Professor; Vanderbilt University Medical Center, Nashville, TN
Objectives: To describe how library expertise in assessing evidence in clinical settings is being integrated into major institution-wide efforts to standardize and promote evidence-based patient care throughout Vanderbilt University Medical Center (VUMC). These initiatives have provided an opportunity to clearly demonstrate the uniqueness of expert medical librarian skills and have medical center-wide impact on clinical practices and patient outcomes.
Methods: Lending its unique expertise in evidence-based medicine, the Eskind Biomedical Library partnered with interdisciplinary teams charged by VUMC leadership to define and promote evidence-based practices throughout the medical center. In collaboration with the chief quality informatics officer leading the effort, library personnel played a central role in the development and application of methods for identifying and evaluating evidence to support a large-scale push for more rigorous practice of evidence-based medicine. Knowledge management strategies for defining and documenting processes were also developed to ensure ongoing success of the project. The team is engaged in a parallel effort in response to a call for expanded evidence-based medicine practices in distributed outpatient settings. Expanding on contributions to order set development, the team evaluated solutions and provided key insights on the selection and adoption of an evidence-based order set product for use throughout the medical center.
Results: The start-up phase of the clinical practice project is complete, with implementation of evidence-based practice changes in ordering routine preoperative chest X rays. Library expertise was employed in the development of methods for investigating evidence, identifying synthesized evidence, and filtering and grading the evidence, with reported findings informing institutional practices. Contributions were also made to documentation of methods and sources, development of systemic approaches to clinical topics, and preliminary investigation of potential future clinical changes, including areas of potential imaging overuse. Updated standards were implemented via informatics and educational methods, with preliminary results suggesting that a reduction in excess chest X rays has been achieved. Additional reduction is expected and represents both an improvement in adherence to evidence-based care and potential cost savings for the institution.
Conclusions: With full integration into the evidence subgroup for this project, library experts have been able to spread knowledge about the varying quality of different forms of evidence, contribute to good knowledge management practices, and have the opportunity to collaborate with a wide range of clinical, research, informatics, and leadership personnel. Librarians also maintain a presence with the outpatient order set and evidence team, providing insights and expertise for additional evidence-based investigations.

International Conference of Animal Health Information Specialists (ICAHIS)

International Conference of Animal Health Information Specialists 2: Animal Health Librarians Collaborating Globally

Cosponsored by Veterinary Medical Libraries Section
HCC, Level Three, Room 305

1:35 p.m.
Using a Decision Matrix to Create a Core List of Veterinary Monographs Δ
Heather K. Moberly, AHIP, Coordinator, Veterinary Services, Medical Sciences Library, Texas A&M University–College Station; **Vicki F. Croft, AHIP,** Head, Animal Health Library, Washington State University–Pullman; **Jessica R. Page, AHIP,** Assistant Professor and Head, Veterinary Medicine Library, Ohio State University–Columbus; **Ana Ugaz, AHIP,** Resources Management Librarian, Medical Sciences Library; **Esther Carrigan, AHIP,** Associate Dean and Director, Medical Sciences Library; Texas A&M University–College Station; **Diana Farmer,** Content Development Librarian, Hale Library, Kansas State University–Manhattan; **Fiona J. L. Brown,** Liaison Librarian, Lady Smith of

Kelvin Veterinary Library, University of Edinburgh, Easter Bush, Midlothian, United Kingdom
Objectives: Create an authoritative list of key veterinary monographs for veterinary, agricultural, animal health, and medical libraries. This list will provide a collection development tool to customize local holdings based on the objectives and goals of the institution.
Methods: Adapt methods developed by Ugaz et al. for the "Basic List of Veterinary Medical Serials, Third Edition" (2010) for use with monographs. Develop an online tool to survey librarians at American Veterinary Medical Association (AVMA)-accredited veterinary schools as to the relative value of individual books, organized by specialty, is a key component of the methodology. A weighted formula to rank titles using survey results, required readings for AVMA Recognized Veterinary Specialty Organization (AVMA RSVO) boards certifications, lists of required and recommended texts, and standard bibliographic tools will be developed.
Results: Application of the methodology used in building a core list of veterinary serials appears very promising. It is also being supplemented with comparable additional inputs as needed to complete the decision matrix. Use of the readings for the AVMA RSVO boards certifications proved completely transferable to this project. Input from librarians and veterinary practitioners can also readily be included in this project. Required and recommended texts from representative veterinary curricula will enhance the original serial methodology. A summary of completed results and the matrix data elements remaining to be completed will be presented.
Conclusions: The use of a matrix to develop a core list of veterinary monographs is flexible enough both to provide a standard list of key monograph titles and a methodology that can be applied to other disciplines, as well as in individual institutions.

1:51 p.m.
VetPrint: Building an International Print Preservation Program for Veterinary Literature Δ
Esther Carrigan, AHIP, Associate Dean and Director, Medical Sciences Library; **Ana Ugaz, AHIP,** Resources Management Librarian; Medical Sciences Library, Texas A&M University–College Station; **C. Trenton Boyd, AHIP, FMLA,** Head, Zalk Veterinary Medical Library, University of Missouri–Columbia; **Heather K. Moberly, AHIP,** Coordinator, Veterinary Services, Medical Sciences Library, Texas A&M University–College Station; **Vicki F. Croft, AHIP,** Head, Animal Health Library, Washington State University–Pullman
Objectives: The objective of this research was to develop and launch an international print preservation program for veterinary literature.
Methods: Principal investigators consulted with US veterinary library colleagues, reaching a consensus to craft a program to parallel the MedPrint program of the National Library of Medicine. A document outlining the intent of the VetPrint program and expectations for participants was drafted and discussed with colleagues at the 2012 meeting of the Veterinary Medical Libraries Section (VMLS) at MLA '12. The VetPrint program document was discussed with international veterinary librarian colleagues at 2012 meetings in Europe and Scotland. Veterinary librarians were surveyed to identify any problematic requirements of VetPrint and to identify the first tier of journals to be preserved, using the Basic List of Veterinary Medical Serials, 3rd edition. The identified first tier of titles was added to the VetPrint documentation. Solicitation of a commitment to participate began with VMLS libraries and expanded to international colleagues.
Results: Results will report on the collaborative development of the VetPrint program, including the development of formal agreements, terms of those agreements, and challenges inherent for international library participation. A report created to track designated VetPrint titles and the libraries committed to retaining them will be presented.
Conclusions: The launch of the VetPrint preservation program has identified several areas of challenge and next steps. The primary challenge is to develop a comprehensive model for a print preservation program that is sustainable and scalable. Other issues include determining the optimal number of preservation copies for titles, solving the complications with international colleague libraries and their relationships with their national libraries, building relationships with existing print preservation initiatives to leverage preservation for veterinary titles, and developing a web presence.

2:07 p.m.
Yours, Mine, and Ours: Resource Sharing and Library Services for a New Cooperative Regional Program in Veterinary Medicine
Sandra Weingart, Reference, Agricultural Sciences, and Veterinary Medicine Librarian, Merrill-Cazier Library, Utah State University–Logan; **Vicki F. Croft, AHIP,** Head, Animal Health Library, Washington State University–Pullman
Objectives: Librarians at two universities collaborate to provide collections and services for students and faculty of the new Washington-Idaho-Utah Regional Program in Veterinary Medicine. Students will complete their first two years of the program at Utah State University (USU), the new site, and then join their cohort at Washington State University (WSU). The goal is to ensure equitable access to resources and services to all doctor of veterinary medicine (DVM) students and faculty in the program.
Methods: The librarian and administrators at WSU initiated contact with librarian at USU early in the planning stages of this venture. Following an initial series of emails, reciprocal site visits were scheduled to introduce both librarians to faculty at their respective campuses and coordinate collection development and plans for library services for the new faculty and students. Because the campuses are separated by nearly 600 miles, frequent communication is necessary to facilitate planning and development of a common library instruction curriculum, synchronization of online guides and finding aids, and creation of instructional videos. An effective mentor-mentee relationship leverages the experience and rapport of the WSU librarian with her teaching faculty to foster similar partnerships between the USU librarian and her faculty and establishes a solid foundation for her continuing professional development in this new subject specialty.
Results: The two librarians were instrumental in the development of consortial purchasing agreements with major veterinary medicine publishers for e-book content via the Greater Western Library Alliance (GWLA). This is the first such agreement of its kind in the United States and resulted in significant cost avoidance for 6 GWLA veterinary libraries. The librarians developed a graded information literacy component, which was integrated into a major clinical learning experience; student results were strongly positive. This also lays the groundwork for further integration of information literacy into other courses.

Conclusions: Through this collaboration we have achieved major progress towards our goal of equitable access to information resources and services to all DVM students and faculty. By joining one librarian's expertise in collection development with another's deep experience with information literacy instruction, we have provided students at both campuses with access to an expanded range of high-quality information sources and stronger skills in applying that information to their professional education. Faculty members have new partners in developing evidence-based learning exercises. We look forward to building on these early successes.

2:23 p.m.
Interdisciplinary Educational Technology Committee: Working toward Enhancements in Education
Janis F. Brown, AHIP, Associate Director, System and Information Technology; **Jin Wu,** Emerging Technologies Librarian; Norris Medical Library, University of Southern California–Los Angeles
Objectives: Although faculty work in close proximity, usually physical separation as well as social and political divisions create barriers to interactions. Seeing the need for faculty in the health sciences schools at the university to meet and share experiences, the library established an interdisciplinary committee focused on use of educational technologies with the objective of enhancing education in health sciences.
Methods: The library invited eighteen faculty members who are leaders in the use of technology in their curricula to join the health sciences educational technologies committee. The disciplines represented are medicine, pharmacy, dentistry, physical therapy, occupational therapy, and physician assistant. The committee meets three times yearly to discuss topics of common interests, to share technology activities from their own schools, and to hear presentations and see demonstrations from internal and external individuals about new technologies. Technology is an area that crosses disciplinary lines, so it provides a useful focus. The topics covered so far included use of iPads and other tablets, team and class sharing display options, and virtual standardized patients. The library also created a blog to provide committee documents, as well as to post information regularly about new technologies. The blog is open to all interested.
Results: From October 2010 through December 2012, the group has met seven times with about ten faculty in attendance per meeting. A few of the faculty who were originally invited have never attended meetings, while others have attended nearly all of the meetings. The attendees have expressed enthusiasm about the opportunity to meet with faculty from other disciplines, but attendance has not been as high as hoped. The library conducted a survey of members to gain feedback about what the continued value of the group is and whether changes can be made to increase the value to the members.
Conclusions: A library that serves multiple health sciences schools can play a constructive role in encouraging knowledge sharing among the faculty of various disciplines. Educational technology provides a useful theme as it is one that is relevant to all disciplines regardless of how much they have incorporated technology into their curriculum. But the question still remains whether the usefulness of the group interaction is sufficient to sustain the group in the midst of other demands.

2:39 p.m.
Compliance of Veterinary Medicine Systematic Reviews with Literature Search Reporting Standards Δ
Lorraine Toews, Librarian, Veterinary Medicine, Bachelor of Health Sciences, Health Sciences Library, University of Calgary, Calgary, AB, Canada
Objectives: Complete, transparent reporting of literature search methods used in systematic reviews is vital, both for assessment of the validity of the review and for reproducibility of the search. The purpose of this study was to examine the compliance of systematic reviews published in veterinary journals with current search reporting standards such as PRISMA, the Cochrane Handbook, and the Institute of Medicine Standards for Systematic Reviews.
Methods: Systematic reviews published in fourteen high-impact veterinary medicine journals were retrieved by searching Ovid MEDLINE for citations whose titles included the words "meta-analysis" or "systematic review" or whose publication type was "meta-analysis." The abstracts and methods sections of these reviews were analyzed against a list of key reporting elements from PRISMA, the Cochrane Handbook, and the Institute of Medicine Standards for Systematic Reviews, including: list of all resources searched, inclusion of full electronic database search strategies in the review appendix, inclusion of a study flow diagram, and inclusion of a librarian in planning and conducting the search.
Results: Some of the key findings were: Only 48% of reviews reported searching CAB Abstracts, only 16% reported searching any gray literature, and none reported the full electronic search strategy used in sufficient detail such that it could be replicated. Only 12 % of reviews reported consulting with a librarian or information specialist to plan or conduct the review literature search.
Conclusions: There were significant gaps in compliance with current literature search reporting standards in the studied reviews. These gaps raise concerns about the quality of many of these reviews. Since CAB Abstracts is the most comprehensive index of the veterinary medicine literature, the failure to search this database raises significant questions about the completeness of the searches in nearly half of the reviews. The failure to include gray literature in 74% of reviews raises concerns about publication bias, and the failure to report search strategies in sufficient detail raises concerns about reproducibility of literature searches. Ultimately, these deviations from literature reporting standards raise questions about the validity of reviews based on a potentially biased and incomplete body of literature.

ICML 3

Monday, May 6, 3:00 p.m.–4:30 p.m.

2013 National Program Committee (NPC) and International Congress on Medical Librarianship (ICML)

International Congress on Medical Librarianship 3: Global Data Sharing to Advance Science and Environmental Aspects of Global Health

Cosponsored by Veterinary Medical Libraries Section

HCC, Level Three, Room 311

3:05 p.m.

One Academic Library's Response to the Data Dilemma

Courtney Crummett, Bioinformatics and Biosciences Librarian, MIT Libraries, Massachusetts Institute of Technology–Cambridge

Objectives: What is the role of the academic library in global data sharing? What services are libraries developing to serve the research data management needs of their communities and encourage global data sharing? How have federal mandates regarding data management impacted global data sharing?

Methods: This presentation will discuss examples of successful global data sharing in the biosciences as well as obstacles in data sharing and management that bioscience researchers currently face. The creation of an academic library's team-based approach to encourage data sharing and assist researchers with their data management issues will be described. The library's role in assisting researcher compliance with new federal data management mandates, such as from the National Science Foundation, will be explored. Two data management case studies describing how the library provided data management services involving bioinformatics and physiological data will be shared.

3:25 p.m.

Introducing Researchers to Data Management: Pedagogy and Strategy

Karen Hanson, Knowledge Systems Librarian; **Alisa Surkis,** Translational Science Librarian; NYU Health Sciences Libraries, New York University–New York

Objectives: The library offered a data management class geared toward basic sciences graduate students and postdoctoral scholars. The class had two

Objectives: first, to introduce this population to trends and concepts in data management and sharing; and second, to strategically position the library to adopt a key role in data management.

Methods: During strategic planning, we identified postdoctoral scholars as a promising point of entry into data management for the New York University (NYU) Health Sciences Libraries. The class was integrated into an annual postdoc laboratory management course, and the course director also opened the session to graduate students. A ninety-minute class was developed to focus on incentives for and basic concepts of data management. The class incorporated results from a national survey of postdocs that illustrated their lack of experience with and misconceptions about the topic, humorous animated videos created to illustrate pitfalls in data management, as well as more traditional instructional elements. To fine-tune the content, a preview class was presented to peers and the course director, along with representatives from the sponsored programs office and Clinical and Translational Science Award (CTSA) training programs, which resulted in the course being opened to the entire research community.

Results: Approximately 30 people attended the class, including graduate students, postdoc scholars, faculty, and staff. Research areas of attendees ranged from basic science through population health. Although the majority of attendees were outside of the target audience, 22/23 participants who completed a course evaluation reported that they would definitely (14) or probably (8) use what they had learned in the class. An interest in further, more detailed data management classes was indicated in 16/22 responses. The class material formed the basis of a LibGuide that is referenced and linked on the postdoc website. The short videos, illustrating pitfalls in data management, have over 1,000 views on YouTube. The class has provided impetus to develop further educational activities around data management, such as offering similar classes to other audiences and creating online modules. Additionally, the class feedback revealed a critical gap in knowledge of local data management resources, resulting in the idea for a concierge service for data management that is now under development.

Conclusion: Taking an educational role in data management was an effective first step in building a data management strategy. It helped identify the most pressing data management needs in the community and was the impetus for developing new data management services.

3:45 p.m.

Supporting the Local Research Data Environment via Cross-Campus Collaboration and Leveraging of National Expertise

Hannah F. Norton, AHIP, Reference and Liaison Librarian; **Rolando Garcia-Milian, AHIP,** Basic Biomedical Sciences Librarian and Liaison; Biomedical and Health Information Services, Health Science Center Libraries; **Michele Tennant, AHIP,** Assistant Director, Biomedical and Health Information Services, and Bioinformatics Librarian, Health Science Center Libraries and UF Genetics Institute; **Cecilia E. Botero,** Associate Dean, George A. Smathers Libraries, and Director, Biomedical and Health Information Services, Health Science Center Libraries; University of Florida–Gainesville

Objective: Given the increasing interest across the sciences in big data projects and research data management, the University of Florida (UF) Health Science Center Library (HSCL) identified a need among our users for data-related services and education. This presentation outlines the HSCL's preliminary efforts to offer such services and education through partnerships with other organizations on campus.

Methods: In 2011–2012, HSCL faculty pursued a variety of explorations surrounding data services, including a pilot project on clinical and translational science researchers' data management practices and needs, participation in the Association of Research Libraries (ARL) E-Science Institute by key administrators, and visits to and from academic libraries across the country with exemplary data-support programs. In 2012–2013, HSCL leveraged the wealth of information gathered through these ventures along with a blossoming relationship with the institution's high performance computing center to provide local education on data management issues.

Results: HSCL faculty presented on data practices at colleges' research events, played a central role in a campus-wide Research Computing Day, and presented on open data at a library-sponsored Open Access Day. Drawing from those experiences, HSCL faculty developed and implemented a data management planning workshop offered monthly to any UF faculty, staff, or students with an interest in data management. Input from interviews with researchers on their data management practices and needs indicated that a common area of need was best practices training for their graduate students; therefore, next steps for the library will be to target the existing workshop to specific departments or lab groups. HSCL faculty have also taken a leadership role in ensuring the libraries' central position on campus in addressing long-term data issues through formation of the Data Management/Curation Task Force, which is composed of librarians from across campus as well as representatives from the UF High Performance Computing Center and Office of Research. With reporting responsibility to the HSCL's director, this task force has

been charged with developing training and outreach materials to enable liaison librarians across disciplines to support campus data management services.
Conclusion: Research data management is an area ripe for library involvement and leadership. At our institution, local training on the best practices in data management and development of a library-wide task force on data management have proved fruitful first steps in providing concrete guidance to our users in this area.

4:05 p.m.
DataShare: Facilitating Scientific Data Sharing
Julia K. Kochi, Director, Collections and User Services; **Kathleen Cameron,** Manager, Digital Library Development; Library and Center for Knowledge Management; **Anirvan Chatterjee,** Director, Information Architecture; **Angela Rizk-Jackson,** Informatics Project Manager; Clinical and Translational Science Institute; University of California–San Francisco
Objectives: This paper examines the development and implementation of an open data repository that provides the institution's researchers a platform to facilitate sharing and discovery of biomedical data with the larger scientific community.
Methods: The need and desire to share data on a wider level has been steadily growing on a national and international level. To facilitate and encourage the sharing and discovery of biomedical data, an institutional open data repository was created through a partnership with the library, the institution's clinical and translational sciences institute (CTSI), and a centralized library service. The current platform builds upon a pilot project developed by the CTSI and utilizes a centralized library service as well as a locally hosted ingest, search, and discovery interface. This paper describes the impetus behind creating the repository, the planning process, metadata issues, interface design, and the challenges of marketing the service and getting buy-in and adoption by researchers. In particular, the library's role in the partnership will be discussed as well as long-term goals for the overall service.
Results: The project is still underway so final results currently are not available. Preliminary findings show that the technical aspects of the project have proved to be more difficult to resolve than anticipated, even when utilizing existing repository infrastructure. Additionally, developing an aggressive strategy to outreach to targeted investigators who would be predisposed to share data (e.g., because of grant or publication requirements) is critical to identify collaborators.
Conclusions: The creation of a data sharing system, while simple in theory, can be challenging when considering the desired functional features of the system. The keys to success appear to be incentivizing the process, identifying the appropriate audience, and working to ensure that the landscape of research stakeholders arrives at consensus in relation to open data policies.

Program Session 3
Monday, May 6, 3:00 p.m.–4:30 p.m.

Chiropractic Libraries Section

Promoting Healthy Nutrition and Natural Remedies for Environmental Health and Wellness in Humans and Animals

Cosponsored by Consumer and Patient Health Information Section, Veterinary Medical Libraries Section, Complementary and Alternative Medicine SIG

HCC, Level Three, Room 301

3:05 p.m.
Digging WELLness: One Library's Goal to Eat Healthier Δ
Ann Farrell, Librarian, Mayo Clinic Libraries; **Melissa Rethlefsen, AHIP,** Education Technology Librarian, Learning Resource Center; Mayo Clinic, Rochester, MN; **Leah C. Osterhaus Trzasko,** Health Science Librarian, Health Science Library, Mayo Clinic Health System, La Crosse, WI
Objectives: Motivate library staff to change their eating habits.
Methods: First Lady Michelle Obama challenged the nation to get up and move. Part of her initiative focused on healthy eating. Our library has a social committee that organizes several potluck luncheons throughout the year. These are usually laden with heavy foods and high caloric desserts, and leftovers are always available. Two library staff volunteered to be "wellness champions" for their library. They used a wellness kit created by the institution's healthy living center to help change the way they ate at work. They administered pre- and post-surveys to determine whether this program made a positive impact on library staff's attitude toward eating healthier during their work day.

3:31 p.m.
An Integrative Approach to Health and Wellness
Catherine Ulbricht, Founder and Chief Editor, Natural Standard Research Collaboration, Somerville, MA
Description: Lifestyle choices including environment, diet, exercise, natural products, complementary/alternative medical (CAM) practices, and conventional therapies can all contribute to total body health and wellness. It is crucial that multidisciplinary health care providers and educators collaborate with patients (and pet owners) to consider all preventative and therapeutic options available toward achieving an integrative health care plan. Ideal evidence-based medical practice incorporates consumer preferences, clinical experience, and scientific data to provide patients with the best health and wellness outcomes. Consolidating all of these important factors into high-quality decision support tools aids practitioners and their clients meet these goals with efficiency at the point-of-care. Due to high utilization rates of CAM therapies, it is imperative that librarians are armed with trustworthy resources and proactively distribute efficacy/safety information to best serve their patrons.

3:58 p.m.
Functional Medicine as an Emerging Paradigm in Health Care
David Wickes, Dean, College of Chiropractic, University of Bridgeport, Bridgeport, CT
Description: Functional medicine is a rapidly growing, multidisciplinary approach to chronic disease management and wellness promotion. Incorporating aspects of holistic health care, nutritional biochemistry, physical medicine, mind-body medicine, systems biology, and patient-centered care, functional medicine views health and illness through the lenses of physiologic imbalances, genetic predisposition, environmental inputs, and clinical imbalances. This presentation will provide an overview of major functional medicine concepts, including allostatic load, biochemical individuality, xenobiotics, structural integrity, detoxification and biotransformation, oxidative stress, immune surveillance, inflammatory cascade, and hormonal and neurotransmitter imbalance. The emphasis will be placed on defining these terms and providing simple examples so that the reference librarian can more easily guide searchers in this growing area.

Consumer and Patient Health Information Section

The Provision of Health Information and Health Care Services to an Aging Population with Chronic Health Conditions

Cosponsored by Library Marketing SIG, Outreach SIG

HCC, Level Three, Room 305

3:05 p.m.

Results of Hands-on Computer Lessons to Teach the Elderly to Find Authoritative Health Websites Δ

Monina R. Lahoz, Associate Professor, Pharmacy Administration, Pharmacy Practice; **Fae Wooding,** Assistant Professor, Pharmacy Practice; **Paula Evans,** Assistant Professor, Pharmacy Practice, and Director, MCPHS Pharmacy Outreach Program; School of Pharmacy; **Irena Dryankova-Bond,** Associate Professor and Library Manager, Blais Family Library; **Nina Pang,** Post-Graduate Geriatric Fellow, Pharmacy Outreach Program; Massachusetts College of Pharmacy and Health Sciences–Worcester

Objectives: To determine the effectiveness of a health information outreach project in changing older adults' (1) awareness and use of MedlinePlus to find information on health, drugs, and dietary supplements; and (2) level of confidence in their abilities to (a) find health information on the Internet and (b) evaluate the reliability and accuracy of health information websites.

Methods: From January to May 2012, a team comprising 3 faculty members, a librarian, a postgraduate geriatric fellow, and several students from a school of pharmacy presented a series of 3 hands-on computer lessons to the elderly at 4 senior centers. The lessons were based on Modules 6 (Introduction to MedlinePlus), 7 (MedlinePlus Drugs and Supplements, Medical Encyclopedia), and 9 (Evaluating Health Websites) of "Helping Older Adults Search for Information Online: A Toolkit for Trainers" from the National Institute on Aging. The lesson series was offered from 1 to 3 times at the senior centers. Pre- and post-lesson surveys were administered to assess the effectiveness of each lesson and the lesson series in achieving the project's objectives. Participants who completed the 3-lesson series received a certificate of completion and a $30 gift card.

Results: A mobile computer classroom, equipped with five 17-inch computer laptops, was used to deliver the lesson series at 4 of 5 senior centers; 1 senior center had its own computer classroom. Lesson 1 (Module 6) was presented 10 times to 64 seniors, Lesson 2 (Module 7) 9 times to 65 seniors, and Lesson 3 (Module 9) 9 times to 59 seniors. A total of 47 seniors completed all 3 lessons. In addition to the pre- and post-lesson surveys (one for each lesson), a follow-up survey was administered by phone and online on the first week of May 2012, approximately 11 weeks after Lesson 3 of the first series and 5 weeks after the second series. The lesson series increased older adults' awareness and use of the MedlinePlus website. More than 68.0% of pre-Lesson 1 survey respondents had never heard of MedlinePlus. On the 3 post-lesson surveys, 100% percent of respondents thought MedlinePlus was a useful source of health information and 98.0% indicated they were likely or very likely to use MedlinePlus to find health information. When asked if they actually used MedlinePlus since taking Lesson 1, 66.7% of pre-Lesson 2 and 53.1% of pre-Lesson 3 survey respondents answered affirmatively. On the follow up survey, 100% of respondents went to the MedlinePlus website first before going to other websites, and 57.9% have used it frequently (about 2 times a week). The lesson series increased older adults' confidence in their abilities to find reliable and accurate health information on the Internet. Of the pre-Lesson 1 and pre-Lesson 2 survey respondents, 35.3% and 72.5%, respectively, felt confident or very confident in their ability to find health information on the Internet. On the post-lesson and follow up surveys, 100% of respondents agreed or strongly agreed with the statement that they were more confident in this ability. On the pre-Lesson 1 survey, 23.5% of respondents felt confident or very confident in their ability to evaluate whether the health information they find on the Internet is reliable. On the post-Lesson 3 and follow-up surveys, 96.2% and 100% of respondents, respectively, agreed or strongly agreed with the statement that they were more confident in this ability. On the pre-Lesson 1 survey, 29.4% of respondents felt confident or very confident in their ability to evaluate whether the health information they find on the Internet is accurate. On the post-Lesson 3 and follow-up surveys, 96.1% and 94.8% of respondents, respectively, agreed or strongly agreed with the statement that they were more confident in this ability.

Conclusions: Fraudulent health claims are rampant over the Internet, and older adults often are the targets of these health scams. Older adults also take multiple prescription and over-the-counter drugs, supplements, and herbals to manage their health, thus they are at increased risk for drug interactions and adverse side effects. Offering hands-on classes at senior centers is a worthwhile strategy to empower older adults and improve their knowledge, skills, and confidence in finding reliable health information on the Internet to manage their health.

3:31 p.m.

Information Everywhere in Support of Elder Care: Health Promotion Programs for the Aging Population

Lydia N. Collins, Consumer Health Coordinator, National Network of Libraries of Medicine, Middle Atlantic Region, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

Objectives: This paper describes the outreach efforts of public libraries and community agencies providing health literacy training to the aging population. Senior housing complexes or facilities, elder day cares, and community-based organizations with individuals at increased risk of chronic diseases were targeted. Training programs were designed to teach seniors the necessary skills to use technology and locate authoritative health information.

Methods: Health literacy levels among the average population are statistically low. In addition, low health literacy in older Americans is linked to poorer status and a higher risk of death, according to a new evidence report by Department of Health & Human Services (HHS) Agency for Healthcare Research and Quality (2011). Descriptions of the challenges and successes of health literacy training to seniors outside of the library setting will be provided. Locally funded projects that specifically targeted senior populations unable to travel to local libraries are highlighted in case studies to reflect real-world implementation of health literacy training and programming for the aged. Additionally, promotion strategies, program themes, and continuity planning will be identified for those who wish to replicate similar outreach efforts.

Results: Outreach to the elderly population is most successful when partnering with organizations that provide services to the aging population. Partnerships between public libraries, senior housing complexes, and faith-based organizations provide access to seniors as well as focusing on the expertise of employees in each institution to more effectively reach this population.

Conclusions: One of the most successful ways to reach the senior populations is through intergenerational programs as well as collaborative programs with health professionals and literacy

specialists in the community. Seniors are eager to learn how to locate their own health information but want to be treated with respect and have ease of access to resources that are relevant to their individual needs.

3:58 p.m.
Information Prescriptions: An International History, Literature Review, and Synthesis Δ
Michelynn McKnight, AHIP, Associate Professor, School of Library and Information Science, Louisiana State University–Baton Rouge
Objectives: As a therapeutic practice, information prescription is not the same as patient education. There are many models of physician-prescribed reading for patients. Recently, a variety of models in different countries have been dubbed "information prescription" and promoted as preferred methods of increasing such patients' information literacy about their conditions. What do the reports and research show? Is there valid evidence supporting some information prescription information models over others?
Methods: Using a variety of high-precision strategies and high-recall strategies, the researcher searched more than a dozen bibliographic databases to identify and retrieve 120 relevant English language reports and research studies published from 1930–2012. Using principles set forth in Harris Cooper's Research Synthesis and Meta-analysis (2010) and others, the researcher analyzed the reports and studies.
Results: Early to mid-twentieth century reports covered long-standing information prescription practices and used no rigorous research methods. Most of the literature since the mid-1980s reports on short-term trial projects. Many that are presented as research studies are actually post-hoc local marketing satisfaction surveys. Although the concept has been in the literature and practice for decades, no long-term research studies were found.
Conclusions: There is not enough evidence from randomized controlled trials of similar models for a formal systematic meta-analysis at this time. Roles for physicians, care givers, librarians, and health care agencies vary from model to model. Most twenty-first century projects emphasize materials and projects from specific government agencies and commercial enterprises. If the goal of Information Prescription practice is for patients to learn about their conditions and take appropriate actions, it is sad that few if any studies actually gather such evidence. We need good studies that provide evidence of the efficacy (or lack thereof) of information prescription practices.

Federal Libraries Section

The Role of Librarians in Evidence-Based Medicine: Part Two

Cosponsored by Clinical Librarians and Evidence-Based Health Care SIG, Complementary and Alternative Medicine SIG, Department of the Army Command Libraries SIG, Informationist SIG, Libraries in Curriculum SIG, Osteopathic Libraries SIG, Translational Sciences Collaboration SIG

HCC, Level Three, Room 312

3:05 p.m.
Development of a Class for Researchers on Best Practices for Conducting and Reporting Systematic Reviews
Pamela Sieving, Biomedical Librarian and Informationist; **Mary Ryan,** Retired; **Susan M. Pilch,** Biomedical Librarian and Informationist; **Karen Smith,** Biomedical Librarian and Informationist; **Nancy Lee Terry,** Informationist; **Anne White-Olson,** Informationist and Biomedical Librarian; NIH Library, National Institutes of Health, Bethesda, MD
Objectives: The objective of this presentation is to describe the development of a two-hour class to introduce National Institutes of Health (NIH) researchers to best practices for conducting and reporting systematic reviews and to raise awareness of NIH Library services available to support the conduct of a systematic review.
Methods: Noting an increase in requests for NIH Library assistance with systematic reviews and detecting some misunderstandings about such reviews among scientific staff at NIH, six informationists teamed up to develop a short class for researchers interested in conducting a systematic review. These informationists had attended the three-day "Systematic Review Workshop: The Nuts and Bolts for Librarians" offered by the University of Pittsburgh's Health Sciences Library System. Drawing on that syllabus and the PRISMA guidelines for inspiration, the team prepared an outline that covered developing a research question and protocol; defining inclusion and exclusion criteria for studies to be considered; selecting databases to search; searching; selecting studies; recordkeeping and reporting; assessing study quality; extracting data; and analyzing, presenting, and interpreting results. The team met biweekly for six months to develop the class.
Results: The class was team taught on each occasion it was offered by three informationists on a rotating basis. It was offered for the first time in November 2011 and four times in 2012. The class has been well attended, and average student ratings of the instructors' presentation, knowledge, and responsiveness to questions fell in the range of very good to excellent. At least a half dozen of the class attendees followed up with requests for library assistance and/or advice about systematic reviews from the NIH Library staff, and several reviews have been undertaken. Suggestions from class attendees have included offering a more advanced class and including more nonclinical examples of systematic reviews.
Conclusions: Appropriately trained library professionals can contribute to researchers' knowledge about best practices for conducting and reporting systematic reviews, as well as raising awareness that library staff can provide substantive assistance and advice in the systematic review process beyond their searching and database expertise. The reception of this class by NIH researchers has been an impetus for developing an explicit Systematic Reviews Assistance Service at the NIH Library.

3:25 p.m.
Use of Bibliometrics to Validate an Evidence-Based Clinical Practice Tool Δ
Susan A. Fowler, Medical Librarian; **Cathy C. Sarli, AHIP,** Scholarly Communications Specialist; Bernard Becker Medical Library; **Christopher Robert Carpenter,** Assistant Professor and Emergency Medicine Director, Evidence Based Medicine, Division of Emergency Medicine; School of Medicine, Washington University in St. Louis, St. Louis, MO
Objectives: The objective of the study was to determine if a rating tool to appraise and identify clinically relevant studies could be retrospectively validated using a bibliometric construct of clinical relevancy. The hypothesis of the study was that bibliometric criterion will correspond with the scores applied by the physician reviewers of articles rated as clinically relevant for application in practice.
Methods: Through a collaboration of emergency medicine faculty from 2 universities; a statistician; 2 premed students,

and librarians who specialize in scholarly communications and evidence-based practice, the project team members collected publication data for articles critically appraised by emergency physicians using the "Best Evidence in Emergency Medicine" (BEEM) rater scale. The BEEM rater scale is a tool based on a 7-item scale to evaluate the relative clinical relevance of emergency medicine-related articles found in more than 120 journals. Publication data were analyzed using the BEEM rater scores with select bibliometric criterion: citation counts, *h* indices of the first and last author, journal impact factor scores, number of authors, and others. Analysis was performed using negative binomial regression and Spearman's rho.
Results: In total, 605 articles were reviewed with citation data available for 594. The citation rate and BEEM rater score were positively correlated (0.144). Using negative binomial regression analysis, the BEEM rater score significantly predicted the citation rate ($P<0.0001$) with an odds ratio of 1.24, meaning that for every 1 unit score increase on the BEEM rater scale, the odds of being cited increased by 1.24.
Conclusions: This study demonstrated a correlation between the BEEM rater score of an article and citations garnered since publication, with a higher BEEM rater score corresponding to an increase in the number of citations. There were insignificant correlations between BEEM rater scores and journal impact factor scores and the *h* indices of the first and last authors. Future research should assess this instrument against alternative constructs of "best evidence."

3:45 p.m.
The Changing Face of Evidence-Based Practice: New and Emerging Roles for Health Sciences Librarians Δ
Michelle Henley, Coordinator, Instruction and Consultation Services, Barnett-Briggs Medical Library, San Francisco General Hospital, San Francisco, CA; **Joy Graham, AHIP,** Former Manager (retired), Barnett Briggs Medical Library, San Francisco General Hospital, Honolulu, HI
Objectives: Since the introduction of evidence-based medicine (EBM) by Gordon Guyatt in 1992, health sciences librarians have sought to define their roles in supporting EBM and the broader approach of evidence-based practice (EBP). The authors investigate some of the ways librarians are currently supporting EBP and propose roles that could be instrumental in the future.
Methods: The authors present an overview of EBP in health sciences, noting where librarians have been involved. A review of the literature from the last five years was performed to locate articles describing how health sciences librarians are currently supporting EBP. An online survey was also distributed to US health sciences librarians via the MEDLIB-L email discussion list in October 2012 to further determine ways in which librarians are directly supporting EBP in their institutions. The authors then examine the literature and survey results to highlight emerging roles for supporting EBP and how these may be implemented in the future.
Results: Our research indicates 2 major roles for librarian participation in EBP: literature search consultation and instruction on EBP resources. Of 106 respondents to our survey, 96% provide literature consult services and 88% train users on EBP resources like Cochrane or PubMed. Other ways librarians support EBP include creating guides or tutorials about EBP and developing search tools for finding clinical evidence. Many librarians also report regular attendance at EBP or nursing research councils. The literature from the last 5 years indicates that many librarians provide literature search consultation and EBP instruction, but with more interest in integrating these into the medical or other school curriculum or providing it at the point of clinical care. Survey results and the literature show that many librarians support EBP by participating in or attending rounds, but only 17% of our survey respondents reported attending medical rounds.
Conclusions: Based on our research, the authors project that librarians will continue to look for new or novel ways to support EBP, for example, developing search tools or customizing databases to better locate EBP literature. Integrating librarian taught EBP courses into academic or clinical curriculum and providing practical training or consulting at the point of care have emerged as ways to better impact overall EBP practice. Emerging roles will focus on these areas, namely as instructors or collaborators in curriculum-based EBP classes and as active participants in clinical rounding or point-of-care encounters. Librarians who want to participate in these roles will need to overcome some reported challenges, namely a lack of staffing and time to work on EBP initiatives.

4:05 p.m.
The Role of the Librarian in Conducting Systematic Reviews Δ
Mala K. Mann, Information Specialist and Systematic Reviewer, Support Unit for Research Evidence, Cardiff University, Cardiff, United Kingdom; **Alyson Huntley,** Research Officer; **Sarah Purdy,** Consultant Senior Lecturer and MRC Clinician Scientist, School of Social and Community Medicine, University of Bristol, Bristol, United Kingdom; **Dyfed W. Huws,** Consultant, Public Health, Cwm Taf Public Health Team, Public Health Wales, Merthyr Tydfil, United Kingdom; **Shantini Paranjothy,** Senior Clinical Lecturer, School of Medicine, Cardiff University, Cardiff, United Kingdom; **Peter Brindle,** Director, Research and Development Programme, National Health Service Bristol, Bristol, United Kingdom; **Rebeccca Thomas,** Research Officer; **Glyn Elwyn,** Clinical Professor, School of Medicine, Cardiff University, Cardiff, United Kingdom
Objectives: The aim of this paper is to illustrate the role of the librarian in conducting systematic reviews collaborating with clinicians, health care workers, researchers, and policy makers. We will examine series of systematic reviews conducted during the last two years to identify interventions to reduce unplanned hospital admissions.
Methods: We carried out a literature search across 18 electronic databases including ASSIA, CINAHL, Cochrane Central Register of Controlled Trials, Embase, and MEDLINE from 1950–2010. The search strategy was designed in Ovid MEDLINE using comprehensive list of search terms, which were generated in collaboration with the subject experts. For the rest of the databases, search terms were adapted according to the search capabilities of each particular database. A methodological filter from the Cochrane Effective Practice and Organisation of Care Group was applied to retrieve study designs eligible for the review. In addition, we have searched relevant websites and reference list of included studies and contacted experts in the field. The search generated over 20,000 abstracts, which we grouped into topic areas prior to the retrieval of full-text papers.
Results: Twenty topic areas were identified: 3 of high priority, case/care management programs (n=97 studies); specialist clinics/services (n=28 studies); and multidisciplinary community interventions (n=92 studies). There were 10 relating to medium priority, which includes continuity of care (n=15 studies) and

exercise and rehabilitation programs (n=1). Seven topics of low priority were also identified. The topic areas were prioritised by the advisory group. Apart from the final report, 5 publications on systematic reviews have been generated from the search, 3 of which are in press. The results of the high-priority topic areas will be presented at the meeting.
Conclusions: Admissions to hospital are an increasing source of pressure on health system resources internationally. The evidence from these reviews will provide appropriate strategies for an evidence base for policy.

Health Association Libraries Section

Partnering with the Public: Collaborating with Public Libraries

Cosponsored by Medical Library Education Section, Library Marketing SIG

HCC, Level Two, Room 206

3:05 p.m.
Health Education through Stories and Games: Partnering with Public Libraries to Reach Local Children
Deidra Woodson, Metadata and Digitization Librarian; **Donna F. Timm, AHIP,** Head, User Education; **Dee Jones, AHIP,** Head, Cataloging; Medical Library, Louisiana State University Health Sciences Center–Shreveport
Objectives: Since one-third of the state's children are overweight, medical librarians decided to target young children from low-income areas to reverse this trend. Library faculty developed a project to teach children about the benefits of being healthy through stories and fun physical activities and to create a web portal where children can access authoritative health information and health-related online games.
Methods: As part of a National Network of Libraries of Medicine, South Central Region, subcontract, medical librarians designed a program to educate children about the importance of a healthy lifestyle. First, a children's health section, healthelinks for kids, was designed and added to the consumer health web portal (www.healthelinks.org) created by library faculty. Then, librarians partnered with several local public libraries that had well-developed children's programs and were located in low-socioeconomic communities to reach a large number of underprivileged children. Health-related stories were chosen and read to preschool and early elementary-aged children at the public libraries. Following the stories, the children participated in health-related activities designed to reinforce concepts learned from the stories. All supplemental materials—including activity cards, bookmarks, and other handouts—were created by library faculty.
Results: Nearly one thousand children took part in the activities at local libraries. The children's energetic participation indicated a successful program. Success with the public librarians was indicated by an invitation to return for future story hours. Due to extensive media coverage by the newspaper and all three local television stations, members of the community were made aware of the librarians' efforts to teach young children about healthy lifestyles.
Conclusions: Due to the success of this pilot program, this project was extended for another year to include additional library branches and SciPort, a local children's science museum. Events at SciPort provided opportunities to present health information to children through hands-on activities. These new venues enabled librarians to reach an additional thousand children.

3:25 p.m.
Improving Health Information Access through Public Library Partnership
Christie Silbajoris, AHIP, Director, NC Health Info; **Diana McDuffee, AHIP,** Network Director, Area Health Education Center Information and Library Systems; Health Sciences Library, University of North Carolina–Chapel Hill; **Tim Rogers,** Executive Director, NC LIVE, Raleigh, NC; **Amanda Foster,** Graduate Student, Master's of Library Science Program, School of Information and Library Science, University of North Carolina–Chapel Hill; **Leslie Sierra**, Online Services Librarian, NC LIVE, Raleigh, NC
Objectives: This paper examines a collaborative partnership between the State Library's digital public library service and an academic health sciences library (HSL), which led to the development of a web portal of quality health resources for public, community college, or academic library users.
Methods: Setting/Participants: The State Library's web-based digital library, designed for at-home use, serves all of the public libraries and is dedicated to providing public library users with library and information resources for all ages on a very wide range of topics including health. The HSL serves the information needs of the health affairs faculty and students, as well as the general public. Description: The online public library service is maintained by a small staff without medical information expertise. The partnership allowed a health sciences librarian to provide consultation about presenting the best health information resources in the most effective way. Goals included improving access and increasing the number of users, while highlighting proprietary resources and HSL's own consumer health website. This paper describes the planning process, portal development, and outcomes realized.
Results: Two months after the release of the new portal, usage of health-related resources on the State Library's online public library service increased 200% and usage of HSL's consumer health website increased 35%. The partnership served as a pilot method of utilizing subject experts to contribute to the maintenance of a major public library resource. The State Library has turned over maintenance of their new portal to HSL and deemed the partnership a success. They intend to replicate this partnership model with subject experts in other content areas to improve the reliability of the information contained n the digital library.
Conclusions: The subject expertise contributed by HSL librarians to the State Library's portal combined with the linking between the partners' sites results in increased usage of authoritative health-related resources for North Carolinians and the public librarians who serve them.

3:45 p.m.
The Sustainability of a Spanish Regional Virtual Library Δ
Laura Muñoz-Gonzalez, Managing Assistant, Managing Department; **Veronica Juan-Quilis,** Director; Andalusian Health e-Library, Andalusian Health, Sevilla, Spain
Objectives: The Andalusian Health e-Library (BV-SSPA) is the National Health Library in the region of Andalusia (Spain). It is a corporate hospital library created in 2006. The year 2012 is a turning point for the Spanish economy, and the BV-SSPA has to demonstrate that it is cost-effective and sustainable.
Methods: Andalusia is a wide Spanish region with more than 8 million inhabitants, more than 100,000 health professionals for 41 hospitals, 1,500 primary health care centers, and 28 centers for nonmedical attention purposes, and the BV-SSPA was created to

cover all these health services. It was appointed the only intermediary for contracting electronic resources destined to the Andalusian Health System. Hospitals are not allowed to subscribe any resources, and the same services are offered for the whole system.
Results: In 2011, the BV-SSPA reached the biggest electronic health sciences resource collection in Spain: a total amount of 2,431 subscribed titles, besides 8 databases and other scientific information resources. The following goals were also achieved:

- Cost-effectiveness: In 2011, the BV-SSPA represented a saving percentage of 25.42% compared to the individual hospital subscription costs if they would have continued their contracting.
- Efficiency: Central purchasing has meant for the Andalusian health professionals, the democracy of research resource access. Some services were also created:
- integrated and safe remote access to all the library resources independent of the user's location
- citizenship website, where the resources for citizenship are grouped
- Centralized Document Supply Service, focusing all the article orders from and for the Andalusian Health System
- institutional repository, which contains the whole intellectual, scientific production generated by the Andalusian health professionals
- computer application to study the Andalusian health system scientific production
- Social media as instrument for communicating with users
- science web, a defined space for researchers

Conclusions: Although Andalusia is facing a dreadful economic situation, the BV-SSPA has demonstrated its sustainability:

- For 2012 renewals, it carried out a statistics study allowing obtaining enough data for deciding which titles were not being discharged by users.
- Titles with no discharges or without impact factor were rejected after strong negotiation with suppliers, as the BV-SSPA after 6 years on, is considered a strong dealer by them.
- This meant savings of 14% from the original budget for 2012, which allowed the continuity of the BV-SSPA without decreasing the quality offered to their users.

4:05 p.m.
Women's and Family Health: Working with Public Libraries to Reach New Audiences
Laura Bartlett, Technical Information Specialist, Outreach and Special Populations Branch, National Library of Medicine, National Institutes of Health, Bethesda, MD
Objectives: To support the dissemination and advancement of women's health research, funds were distributed throughout the United States to public libraries to fund meritorious and innovative outreach programs that focus on the dissemination of women's and family health.
Methods: The funding institution provided training and support in the understanding of women's health research and relevant information resources. Public libraries took the lead in developing community partners and carrying out their proposed projects. Quarterly communications between the funding institution and the public library occurred and were used to troubleshoot and to gain a greater perspective of the needs of the community. The funding institution worked closely with public libraries to create evaluation of project goals and measures of success. Lessons learned included creation of a viable timeline, obstacles in funding through local government, and the funding institution provision of adequate subject matter support.

Medical Library Education Section

Educating for the New Jobs Now: From Library Education to Professional Development and Beyond

Cosponsored by Leadership and Management Section, New Members SIG

HCC, Level Three, Room 309

3:05 p.m.
No More Baby Librarians: The Expanding Disconnect Between the Realities of the Master's of Library Science Degree and Expectations of Professional Practice Δ
Katherine Schilling, Associate Professor, School of Library and Information Science, Indiana University–Indianapolis
Objectives: This research investigated the extent to which the statistically significant decreasing numbers of entry-level master's of library science (MLS) positions ($P<0.01$) has impacted on the widening chasm between the skills and knowledge traditionally gleaned through the MLS degree versus the requirements of entry into professional practice.
Methods: Twenty years ago, a newly minted MLS graduate was considered a "baby librarian." While the MLS degree has always been a vital credential for entry into librarianship, it was fairly widely acknowledged that the most valuable skills, knowledge, and understanding of professional practice were developed on-the-job in entry-level positions. New MLS graduates would typically begin their careers in one-three year positions during which they learned the tools-of-the-trade and were indoctrinated into professional life. A systematic review of thousands of job advertisements from 1990, 1995, 2000, 2005, 2010, and 2011 evidences that the past twenty years have seen a dramatic decline in the numbers of advertised entry-level positions. For every one entry-level job today, there were five in 1990. For every one entry level job today, there are five management-level jobs advertised. Content analysis of advertised positions also revealed that new graduates are expected to enter the field with higher demonstrated skills and expertise in the following areas: reference, teaching, information architecture, knowledge management, digitization, leadership, project management, subject expertise, and others.
Results: A decrease in traditional entry-level positions widens the gulf between the realities of MLS education and the requirements of professional practice. A thirty-six credit MLS program degree cannot fully prepare a new graduate for professional life, particularly since few MLS programs require students to participate in internships or direct mentoring activities with practicing librarians. At the same time, professional positions require fully prepared, fully functioning professional librarians, not baby librarians. The issues and challenges related to the gulf between professional education and practice are identified and overviewed.
Conclusions: The nature of the job market for new librarians has shifted dramatically. Higher expectations for new graduates challenge MLS programs to take up the slack by reinventing core curriculum; providing more hands-on, practical, real-life experience for MLS students; and developing meaningful partnerships with practicing librarians to provide mentoring and opportunities for students to engage in professional activities during their MLS education.

3:25 p.m.
Boot Camp for Newly Hired Health Sciences Librarians: A Pilot Project
Bogusia Trojan, Director, Library and Information Services; **Ani Orchanian-Cheff,** Information Specialist, Health Sciences Library; **Marina F. Englesakis,** Information Specialist, Library and Information Services; University Health Network, Toronto, ON, Canada
Objectives: Pilot project to ascertain if an intensive thirty-five-hour long "boot camp" training could be used to address knowledge gaps of newly hired librarians to prepare them for work as librarians and expert searchers in an academic teaching hospital milieu.
Methods: Expert searcher librarians with more than ten years of experience working in a teaching hospital developed a customized curriculum modifying existing resources and geared to new library hires. Recruits were given a pre- and post-test of the same question that they were to search in Ovid MEDLINE. The training consisted of thirty-five hours of individualized instruction over a span of two weeks, covering elements of evidence-based medicine, biomedical database search techniques, clinical question development, the 6S Information Pyramid, and nursing research resources. In addition, recruits were provided with contextual information on the working environment and spent time shadowing experienced librarians. The post-test was assessed to determine if there were any improvements in search techniques or remaining knowledge gaps to address. In addition, recruits completed a feedback and evaluation form.
Results: The trainees exhibited limited improvement when tested immediately following our boot camp. Growth was demonstrated in the use of the explode function in Ovid and increased use of pertinent Medical Subject Headings (MeSH). Knowledge gaps still existed in the proper use of subheadings, sophisticated keyword and adjacency choices, and use of evidence-based search filters. Trainee feedback indicated they found it beneficial and practical in learning the institution's culture, in learning the level of expected competency, and in identifying their knowledge gaps. The boot camp provided an opportunity to learn tips and tricks, build relationships with librarian colleagues, and become comfortable with asking questions.
Conclusions: The boot camp was a valuable tool to ensure that our recruits were provided with the necessary foundation for work in an academic teaching hospital library. It provided practical training in clinical literature searching and exposed the trainees to the hospital's research culture and the level of competency expected of them. Recruits rated the experience highly and would recommend it to future hires. They also suggested areas to improve and gaps to address. Despite positive feedback from our recruits, the post-test indicated that long-term mentoring and continuing education is needed to ensure that competencies of expert searchers are achieved.

3:45 p.m.
Informing Future Roles through Research: A National Approach Δ
Aoife Lawton, Systems Librarian, Regional Library and Information Service, Dr. Steevens Hospital, Health Service Executive Ireland, Dublin, Ireland; **Kate Kelly, AHIP,** Chief Librarian, RCSI Mercer Library, Royal College of Surgeons in Ireland, Dublin, Ireland; **Janet Harrison,** Senior Lecturer and Director, Postgraduate Programmes, Department of Information Science, Loughborough University, Leicestershire, United Kingdom
Objectives: To provide a research-based advocacy and professional development framework for practitioners and a national association via a review of the current status of health sciences librarianship in the country compared to international best practice, analysis of the factors shaping the context in which health librarians may work in the next five to ten years, and recommendations for actions to inform strategic directions.
Methods: In December 2010, the Health Science Libraries Group (HSLG), a section of the national professional association, issued a request for proposal for research into the status of health librarianship and libraries in the country. The successful proposal adopted a mixed methods research approach, including: (a) stakeholder interviews with senior academic and management representatives from medical schools, the national health service, Department of Health, and the national quality agency for health care; (b) a focus group of library staff from academic and hospital sites; (c) a national survey of the profession; and (d) participant workshops at the 2011 annual HSLG conference. The research was conducted between December 2010 and March 2011. Results were launched in January 2012. Participants at the 2012 annual HSLG conference decided priority actions from the research recommendations.
Results: A working group was set up in September 2012 to prioritise the implementation of the thirty recommendations of the research report. The recommendations have been grouped under three strategic themes: identify champions and promote visibility, build a body of evidence of value, and develop staff and services. Five responsible bodies have been identified: the HSLG, the Department of Health, health librarians, health libraries, and the Health and Information Quality Authority. The working group is due to complete prioritisation of the recommendations by February 2013. These will be ratified by the HSLG in spring 2013 with a view to implementation of short-, medium-, and long-term recommendations within achievable timeframes.
Conclusions: The volume of work involved in the implementation of the recommendations is substantial. The success of this process will be largely dependent on voluntary input from both the HSLG and individual librarians. Key to this is the value that this research brings to the future of the health sciences library profession in Ireland.

4:05 p.m.
Utilizing Internal and External Expertise to Enhance Professional Development through Reflective Practice
Mary Edwards, AHIP, Distance Learning and Liaison Librarian, Biomedical and Health Information Services, Health Science Center Libraries; **Michele Tennant, AHIP,** Assistant Director, Biomedical and Health Information Services, and Bioinformatics Librarian, Health Science Center Libraries and UF Genetics Institute; **Rolando Garcia-Milian, AHIP,** Basic Biomedical Sciences Librarian and Liaison; **Jennifer A. Lyon, AHIP,** Clinical Research Librarian; Biomedical and Health Information Services, Health Science Center Libraries; **Judith Roberts,** Instruction Consultant and Training Program Coordinator, Library Human Resources Office; University of Florida–Gainesville
Objectives: Medical librarians have a variety of opportunities for professional development and continuing education. While individuals can and should direct their own learning, departmental coordination can facilitate efficiency and synergy within a unit. Reflecting upon the desired knowledge, skills, and abilities of the department and leveraging existing competencies, the unit can supplement areas of individual expertise and allow them to

inform the entire department through cross-pollination of skill sets.
Methods: Librarians in the Biomedical and Health Information Services (BHIS) department at the University of Florida Health Science Center Libraries (HSCL) collaborated to improve their professional development. Based on librarian and institutional needs identified by group discussion and reflection, librarians participated in numerous learning opportunities, including sharing and peer review of research, writing, and searches; internal training (librarian-led expertise-sharing sessions); and external training (invited and visiting training opportunities). Results Professional development opportunities in the department were coordinated to support the needs of the librarians, while leveraging existing expertise. The mainstay of the internal sessions were a series of "teach ones" and journal club discussions. Each librarian taught one teach one per year, providing instruction in a database or other area of expertise. In addition to the teach ones, each librarian led one journal club sessions, providing time for departmental discussion and debate. Teach ones and journal club topics included cloud computing, institutional review board tips, and synchronous online instruction, among others. Other internal professional development opportunities included a series of workshops on instructional design topics for librarians. To supplement the internal sessions, the library utilized funds from a faculty enhancement opportunity (FEO) to bring in experts who provided instruction on topics including bioinformatics and data management. Planning for professional development should not be a static process; it should be flexible and iterative to accommodate changes in the library's mission and goals and reflect the needs of the department.
Conclusions: Using an informal, flexible approach to professional development planning maximizes interest and participation. Using onsite librarians' knowledge leverages expertise, saves time and money, and aligns learning with institutional goals. Expecting librarians to be responsible in part for departmental learning promotes the importance of professional development. Libraries should take advantage of their employees' expertise and allow them to share their knowledge with the department. Future directions include a library system-wide training needs assessment and an evaluation of the current professional develop opportunities available.

Pharmacy and Drug Information Section

AccessPharmacy Lecture

Cosponsored by International Cooperation Section

HCC, Level Three, Room 310

3:05 p.m.
Internationalizing a Health Sciences Campus: The Massachusetts College of Pharmacy and Health Sciences Experience
Chris Sauer, Associate Provost, International Education, and Chief Executive Officer, MCPHS International, Massachusetts College of Pharmacy and Health Sciences–Boston
Description: Every international student goes through the acculturation process as they begin an academic career in the United States. The presenter will show how the process of internationalizing the Massachusetts College of Pharmacy and Health Sciences (MCPHS) campuses is following a similar pattern, beginning with the honeymoon period and ending with a campus where a global perspective informs the curriculum, supports faculty initiatives, and validates the international student experience. Areas to be explored: recruitment and admissions processes, student services for both international and domestic students, curricular adaptation, and faculty development. The presenter will use examples from MCPHS' projects and the decisions that were made to move campus internationalization forward. MCPHS, Boston's oldest institution of higher education and the second oldest pharmacy college in the United States, decided to actively support the internationalization of its three campuses in 2012 with the creation of MCPHS International.

Relevant Issues Section

How Data Collection and Ethics Intersect in Eliminating Health Disparities

Cosponsored by Research Section; Lesbian, Gay, Bisexual, and Transgendered Health Science Librarians SIG

HCC, Level Three, Room 303

3:05 p.m.
Changing the World with Data Collection, One Exam at a Time: Clinicians and Librarians Map the Way
Jim Anderson, Physician Assistant, Department of Anesthesiology and Pain Medicine, University of Washington–Seattle
Description: While progress in eliminating health disparities has been difficult to come by, evidence continues to show that data collection and ethics play key roles in addressing and reducing racial and other cultural disparities in care, combining to create a symbiotic and powerful interface related to health disparities. Clinicians face the challenge of finding meaningful ways to address disparities in clinical settings. Many struggle to identify ways to address health disparities in the confines of clinical encounters. However, meaningful tools and resources exist to help clinicians turn their clinical settings into disparities-reduction laboratories. Utilizing a "small-ball" approach to data collection is one way for clinicians to integrate health disparities focus into their clinical work. The Toyota-style process tool called "lean" offers a concept of "standard work, " in which clinicians identify realms and activities that can be made part of daily clinical activity, rather than be seen as extraneous and marginal. Empowering clinicians to collecting data about health disparities in site-specific manners is one such concept. Data in the field of implicit bias and unconscious stereotyping underscore the potential impact of a "standard work" approach to data collection about racial and other disparities in care. Additionally, there is a growing sentiment in the medical community that fighting disparities is central, rather than optional. The notion that clinicians have an ethical responsibly to look for ways to integrate the addressing of unequal care into their core activities is gaining exposure. The American Academy of Physician Assistants has identified specific techniques for meeting this ethical calling, to enhance the clinician's awareness of data-collection benefits in clinical settings, to offer a broadened framing of how to address health disparities, and to understand the need to view such efforts as essential, urgent, and clinical. Medical librarians are natural allies of clinicians interested in these efforts, and in information advocacy related to promoting literature, information, and resources providing a roadmap for clinicians to increase health equity and equal care for all patients.

3:45 p.m.
If Not Us, Then Who? Medical Librarians Using Information Advocacy to Promote Health Equity
Sally A. Gore, Head, Research and Scholarly Communication Services, Lamar Soutter Library, Medical School, University of Massachusetts–Worcester
Description: Over the past decade, evidence of the role ethnicity and race play in creating and sustaining disparities in health care has grown. Other factors such as sexual orientation, socioeconomic status, education level, and more have also been identified as ones that lead health care organizations and providers, often unknowingly, to provide different standards of levels of care to patients based more on who a patient is than issues of access or need. Much of this evidence results from the collection and study of data related to cultural stereotypes, bias, income, or social status. Be they large epidemiologic studies or ones carried out in a small clinic or practice, when proper data are collected, analyzed, and reported, these areas of inconsistency and discrepancy in care can be identified and addressed, resulting in better quality of care for all. Medical librarians have long supported the work of clinicians through ensuring quality information for both patients and providers, but are there roles they can also play in the efforts using data to eliminate health care disparities? Identifying sources of data, developing data dictionaries, creating ways that improve information sharing between providers, and managing data sets are some of the tasks needed where the skill set of librarians proves a good fit. Librarians working in research settings, clinical settings, public health offices, and government agencies that address health care are well positioned to take an active and equal role in helping to eliminate the disparities we see in health care today.

Technical Services Section

Leading by Design, Not Default: Focused Direction in Support of the User

Cosponsored by Leadership and Management Section, Molecular Biology and Genomics SIG, Research Section

HCC, Level Three, Room 313

3:05 p.m.
Bringing Back the Librarian as Collection Curator in Data Driven Acquisitions (DDA): A Year-Long Experiment in Next-Generation E-Book DDA in an Academic Health Sciences Library Δ
Megan Curran Rosenbloom, Head, Metadata and Content Management; **Mary Fran Prottsman, AHIP,** Associate Director, Collection Resources Division; Norris Medical Library, University of Southern California–Los Angeles
Objectives: This paper explores a new method of data-driven acquisitions (DDA), where access is provided to 100 e-books from selected medical disciplines for a full year, at which time usage statistics are delivered to the collections librarians, which they use to make final purchasing decisions.
Methods: Statistical data from this year-long pilot program will provide the basis for the collections librarians to decide which titles to keep and which will be removed from the catalog, leaving room for librarian collection curation. The data will be examined to compare usage patterns across subject disciplines and with other electronic collections and print titles. A literature review will show how this method compares with traditional collections development and purely patron driven acquisitions programs in terms of budget, usage data, metadata, and collection balance.
Results: This method of data driven acquisitions enables the librarians to judge what is sufficient usage for purchase in each subject area based on its importance to the institution's curricula and research priorities. This information aids collection development in making more nuanced purchasing decisions that are still based directly on patron use.
Conclusions: This new method of DDA is a focused, efficient, and cost-effective way to purchase e-books for an academic health sciences library.

3:21 p.m.
Service by Design: Mapping Expressed Information Needs and Preferences of Modern Academic Researchers to Information Services and Technologies Δ
Fern M. Cheek, AHIP, Associate Professor and Research Librarian, Health Sciences Library, Ohio State University–Columbus; **Anna Getselman**, Executive Director, Augustus C. Long Health Sciences Library, Columbia University, New York, NY; **Lynda J. Hartel, AHIP,** Associate Director, Knowledge Integration, Health Sciences Library, Ohio State University–Columbus; **Timothy J. Cain,** Associate Professor, Department of Biomedical Sciences, Heritage College of Osteopathic Medicine, Ohio University–Athens; **Jeremy Kupsco,** Research Informationist; **Barbara Abu-Zeid,** Reference and Instructional Services Librarian; Woodruff Health Sciences Library, Emory University, Atlanta, GA
Objectives: A survey was conducted to gauge what scholarly research communities at a large public and a medium-size private universities perceive as critical information processing tasks, services, and technologies relative to the practice and outcomes in academic research and scholarship. The aim of the survey was to identify trends and patterns to guide design of future information services and technologies.
Methods: Investigators surveyed researchers at the Ohio State University and Emory University regarding their information services and technology needs. These information services mapped to four broad categories: information discovery and access; expert information services; data management services; and digital capture, publication, and preservation. Each category was further divided into subcategories. Additional questions addressed overall impact of service categories and preferences for funding. Organizations on both campuses offering information technology services were solicited for input on the resulting survey instrument before its final launch. Additionally, the survey was validated for clarity and succinctness with several colleagues and customers. At Ohio State, the survey was distributed to a random sample of researchers across the campus, with over half of participants from the biomedical and health sciences. At Emory, survey distribution was limited to biomedical and health sciences researchers.
Results: Survey findings revealed remarkable similarity and consistency in responses from basic sciences, clinical faculty, and researchers at the two distinct institutions. Faculty from both campuses ranked expert information services (i.e., grant and writing support, embedded librarians, and systematic reviews) as the package of greatest impact on research. Information services valued most by participants at both campuses included: integrated or federated searching of campus resources, scientific publication and grant application support, and shared data storage. All respondents designated institutional funding as the preferred model to maintain information services. However, participants indicated

a willingness to consider user-based fees for data management, digital capture, publishing, and preservation services.
Conclusions: Survey results confirmed and highlighted the evolving information services needs of academic researchers. Findings are being utilized to inform strategic planning and information service development at each campus. Librarians are collaborating with campus partners to enhance delivery of the most-valued services and solutions.

3:37 p.m.
Reconceptualizing a Liaison Librarian Program to Develop a Research and Innovation Unit: How and Why We Did It and What We Learned Δ
Amy L. Harper, Clinical Librarian; **Joanne Rich,** Information Management Librarian; **Diana K. N. Louden,** Translational Research and Collaboration Librarian; **Lisa Oberg,** Head, Outreach Services; , Health Sciences Library; **Tania Bardyn,** Director, Health Sciences Library, and Associate Dean, University Libraries; University of Washington–Seattle
Objectives: To describe one academic health sciences library's approach to a conscientious reorganization of the liaison librarian program that created three new relevant, nimble, and proactive units. This paper will highlight one of the resulting units, the research and innovation (R&I) unit, which functions as a test-bed for fast-tracking innovative services to support research, collaboration, and user demand.
Methods: The paper will describe the process leading to the creation of the R&I unit, following the arrival of a new director. We will outline our process of evaluating the need for and designing a reorganization, which included: obtaining input from librarians and our constituencies, describing how the final reorganization decisions were made, reflecting on lessons learned, and highlighting the importance of new leadership observing the landscape and listening to stakeholders prior to implementing major changes. Next, the paper will describe the first-year accomplishments of the R&I unit, which included: establishing key factors of success, establishing processes and protocols for reviewing internal library research proposals, and establishing a research support program.
Results: Following the arrival of the new director, a librarian was appointed associate director of the health sciences library (HSL), and librarians were reorganized into three units: discovery, education, and outreach; clinical and curricular services; and R&I. The R&I unit's priorities were to define its scope and to recruit our translational research librarian. With both completed, an environmental scan of the state of research within the university HSL was conducted, which involved surveying HSL librarians about research interests and goals. We discovered research proposals tended to arise reactively to funding announcements, rather than forming organically. We also discovered the absence of a process for vetting and directing research, which contributed to a feeling of inadequate departmental support for research. As a result, the R&I unit established a process for reviewing library research proposals, with the intention of increasing transparency and encouraging a culture of inquiry.
Conclusions: Developing our research proposal process included: defining the scope of projects requiring formal review, developing a communication strategy for tracking funding opportunities, documenting and promoting librarian research interests and expertise, creating a protocol for moving a research idea to the completed project phase, and providing peer support along the research life cycle. Project proposals must now align with the HSL strategic priorities and goals, and show evidence of collaboration or innovation.

3:53 p.m.
Welcoming Users to Digital Libraries: Redesigning an Open Access Repository for Community Engaged Health Research Δ
Jere Odell, Scholarly Communications Librarian, University Library; **Helen Sanematsu,** Assistant Professor, Herron School of Art and Design; Indiana University-Purdue University–Indianapolis; **Emily Hardwick,** Program Manager, School of Medicine, Indiana University–Indianapolis
Objectives: To show how design research methods (including attention to messaging, usability, aesthetics, and the information habits of stakeholders) improve the user experience of an open access repository for community engaged research.
Methods: Supported by a Clinical and Translational Science Award (CTSA), the Community Health Engagement Program (CHEP) of Indiana Clinical and Translational Sciences Institute (CTSI) received a grant to create an open access, CTSA-wide, digital repository. The project relies on the subject expertise of community engagement stakeholders, the digital library support of an informationist, and system development from an information technology team. Initial feedback from users indicated that the site's purpose and function were unclear and, furthermore, that the site's interface discouraged broad, community participation. In response, CHEP formed a collaboration with a member of the design faculty at the Herron School of Art and Design at Indiana University. After conducting further research with stakeholders and performing a communications audit of the site, the designers recommended ways to (a) improve the repository's on-site messaging, aesthetics, and accessibility; and (b) encourage participation by using tactics consistent with the off-site behavior patterns of stakeholders.
Results: The design group worked with the website development team and the project's external stakeholders to clarify the site's purpose and identify potential messaging strategies. After conducting stakeholder interviews, using card sorting with members of the development team, and assessing comparable sites, the design group recommended: (1) aligning the site's messaging with the values of the users that it serves, (2) renaming the site to reflect this change, (3) designing a welcoming front door for users, and (4) incorporating interactive features, including sharing options (email and social media) linked to individual items in the repository. The website development team adopted many of the recommendations, and the repository was relaunched as Community Research Utilities and Support (CORUS) at https://ctsacorus.org.
Conclusion: Although the website development team that built and designed the original look and feel of CTSA2Community had worked closely with stakeholders from the user group that the repository served, the site's visual messaging did not reflect this guidance. Collaborating across the campus with a team from the Herron School of Art and Design helped the project members redesign the site to make it friendlier and a better fit for the needs of its stakeholders.

4:09 p.m.
Enhancing Library-Based Services for Clinical and Translational Researchers Δ
Michele Tennant, AHIP, Assistant Director, Biomedical and Health Information Services, and Bioinformatics Librarian, Health Science Center Libraries and UF Genetics Institute; **Rolando Garcia-Milian, AHIP,** Basic Biomedical Sciences Librarian and Liaison; **Jennifer A. Lyon, AHIP,** Clinical Research Librarian; **Hannah F. Norton, AHIP,** Reference and Liaison

Librarian; Biomedical and Health Information Services, Health Science Center Libraries; **Cecilia E. Botero,** Associate Dean, George A. Smathers Libraries, and Director, Biomedical and Health Information Services, Health Science Center Libraries; University of Florida–Gainesville

Objectives: In 2011, the University of Florida (UF) Health Science Center Library (HSCL) received funding to explore the general, bioinformatics, and data-related information needs of clinical and translational researchers. This presentation describes the results of these assessments, as well as first steps toward closing these information gaps.

Methods: UF's Clinical and Translational Science Institute (CTSI) comprises over 800 members from disciplines as diverse as medicine and journalism. In 2012/13, librarians assessed information needs using a multimodal approach, including online assessments, focused discussions, and interviews. In terms of bioinformatics, the team was most interested in the types of analyses researchers perform, potential resources for the library to license, and the venues through which researchers prefer to learn. Regarding general information needs, investigators were queried about both services and instruction in areas such as literature searching, systematic reviews, data and bioinformatics, open access, the National Institutes of Health (NIH) public access mandate, institutional repositories, assessment and enhancement of research impact, facilitation of collaboration, use of network visualization tools, and activities related to community engagement.

Results: Bioinformatics assessments provided insights into the basic science interests of CTSI researchers, with genetics, neuroscience, bioinformatics, and the "omics" among top selections. Primary tasks performed by researchers included sequence, microarray, pathway, genome, and proteome analysis. Researchers desired training in the use of statistical analysis software as well as tools for gene expression, next-gen sequencing, and genome browsing. Commercial resources requested included CLC Genomics and Main Workbenches, IPA, and Pathway Studio. Researchers were generally not aware of the open source platform Galaxy already freely available to them. In-person classroom instruction and online tutorials were preferred methods of instruction. Respondents were most interested in the following information services: literature searches to support institutional board review protocols, assistance with systematic reviews, citation checking, general literature searches, assistance with choosing the correct databases/search strategies, submitting articles to PubMed Central, assistance with citation analysis and assessment of research impact, and basic bioinformatics resource support. Respondents were most interested in learning how to enhance the impact of their research, submit to the institutional repository, more effectively search the scholarly literature, assess the impact of their research, perform systematic reviews, maintain best practices in data management, and locate bioinformatics support available at UF.

Conclusions: HSCL librarians are actively reviewing the results of these assessments and will be prioritizing the creation of new services and expansions of existing services to meet the information needs of clinical and translational science researchers.

ICAHIS 3

Monday, May 6, 4:30 p.m.–6:00 p.m.

International Conference of Animal Health Information Specialists (ICAHIS)

International Conference of Animal Health Information Specialists 3: Using Modern Technologies to Share Animal Health Information Globally

Cosponsored by Veterinary Medical Libraries Section

HCC, Level Three, Room 305

4:35 p.m.

Franchising a Library Portal for Customer Focus: Moving in the Right Direction Even with Significant and Ongoing Challenges

Julia Urwin, Manager, Scientific and Technical Information, Learning and Development, Pfizer Animal Health, Exton, PA; **Richard O. Nicholas,** Senior Advisor, Research and Development Business Technology, Pfizer, Sandwich, United Kingdom; **Alexandra Hodges,** Consultant, Vision IT, Exton, PA

Objectives: This paper examines the franchising of a corporate-wide pharmaceutical library portal to create a focused animal health electronic library portal completely dedicated to the needs of one specific customer group.

Methods: This project was part of developing the information content platform to support Pfizer Animal Health (PAH). The Pfizer company-wide library portal was successful but unable to focus on PAH needs. Consequently, finding focused animal health information on the portal was like searching for the proverbial needle in the haystack. Considered a "quick win" project, eLibrary Animal Health delivered on time and made a very good library portal much better for animal health customers; however, behind the scenes the project encountered numerous issues that are still being addressed. This paper describes the planning process, project, and the ongoing challenges. These challenges include technology in an outsourced world, hidden costs in an environment of cost constraint, work across boundaries, and understanding of the needs of the animal health community and a constantly changing organization.

Results: The eLibrary Animal Health portal franchise has provided a successful platform for Pfizer Animal Health to globally improve access to animal health-related information. However, the costs of franchising cannot be ignored, nor can the technical challenges, senior stakeholder expectations, or significant organizational changes.

Conclusions: Delivering the right information, at the right time to the right people, and at the right price is ambitious and a worthy endeavor for customers. It is just not that easy.

4:51 p.m.

Library Resources to Support Online Learning: An Exercise in Collaboration and Development

Fiona J. L. Brown, Liaison Librarian, Lady Smith of Kelvin Veterinary Library, University of Edinburgh, Easter Bush, Midlothian, United Kingdom; **Marshall Dozier,** Senior Liaison Librarian, Information Services, University of Edinburgh, Edinburgh, United Kingdom; **Sharon Boyd,** eProgramme Coordinator, Royal (Dick) School of Veterinary Studies, University of Edinburgh,

Easter Bush, Midlothian, United Kingdom; **Jo-Anne Murray,** Senior Lecturer, Royal (Dick) School of Veterinary Studies, University of Edinburgh, Easter Bush, Midlothian, United Kingdom
Objectives: In 2008, the veterinary school developed its first fully online distance learning master's programme. The librarian prepared and delivered materials of comparable quality to that for the campus-based students to support this course. The findings of a survey of online learners' experience of the library service will be reported and, where appropriate, compared with the results of a previous survey.
Methods: Since 2008, the number of postgraduate master's-level and continuing professional development courses delivered in an online-only format has increased and now includes programmes in disciplines not previously delivering courses by distance learning. Consequently, the university library service is looking to develop further the services it offers to these students. This paper reports on activities supporting distance learning programmes and how these have developed since 2008. These developments include an increase in the number of programmes delivered in the veterinary school (including courses in conservation medicine and international animal welfare, ethics, and law), as well as an increase in the collaboration of librarians who are supporting a range of distance learning programmes across several subject disciplines. The findings of a survey of online learners' experiences of the library service will be used to develop the service further.

5:07 p.m.
Creating HABRI Central: Librarians in Partnership with Researchers, Software Developers, and Publishers
Jane Kinkus Yatcilla, Health and Life Sciences Information Specialist and Associate Professor, Library Science, Health and Life Sciences Division; **Gretchen Stephens,** Veterinary Medical Librarian and Associate Professor, Library Science, Veterinary Medical Library; Libraries, Purdue University, West Lafayette, IN
Objectives: This paper addresses the creation of HABRI Central (www.habricentral.org), an online platform for research and collaboration on the human-animal bond (HAB) and a landmark collaboration between the Purdue University College of Veterinary Medicine, Purdue University Libraries, Purdue University Press, and Human Animal Bond Research Initiative (HABRI) Foundation. In this grant-funded project, librarians are working closely with researchers, software developers, and publishers to develop a comprehensive bibliography and definitive taxonomy in support of this new virtual research environment.
Methods: Development of the bibliographic database containing current peer-reviewed articles from relevant databases includes:
- defining relevant subjects with the advice of experts in the field, especially the HABRI Central Editorial Board
- developing relevant search strategies that uncover HAB literature already indexed in diverse databases
- identifying journals focused primarily on human-animal bond for comprehensive indexing
- identifying peer-reviewed and/or evidence-based literature
- indexing individually authored book chapters from HAB-related books

Creating a taxonomy is an opportunity to define the many important aspects of HAB research. Work on the taxonomy is an iterative process, including:
- examining the terminology already employed in databases
- mining the results of literature searches for additional terminology
- consulting with subject experts and the Editorial Board

Taxonomic terms are also being used to pre-populate HABRI Central's database of tags describing uploaded content, while still allowing users to dynamically add free-text tags.
Results: Since July of 2011, some 15,500 citations have been ingested into the bibliography component of HABRI Central and over 250 taxonomic terms have been identified. A variety of software and usability issues have been addressed to date, and publisher relationships for access to abstracts and full-text are being explored. Since its launch in March of 2012, HABRI Central has been marketed to researchers and professionals at various professional meetings. Ongoing development of these resources in collaboration with the digital repository and online publishing components of HABRI Central will be reported at One Health.
Conclusions: HAB literature is interdisciplinary in nature, international in scope, and currently dispersed throughout many academic, professional, and public fields of study. Creating a comprehensive bibliographic database and companion taxonomy will facilitate future collaboration and research in the HAB field, especially in the developing HABRI Central platform.

5:23 p.m.
Veterinary Information to Strengthen the Livestock and Dairy Sector in India: An International Consultation
Robert Taylor, Head, Veterinary Market Development, Publishing, CABI, Wallingford, United Kingdom
Objectives: India is the world's largest producer of milk and recently became the largest exporter of beef. However, its large animal agriculture sector must grow further to meet the needs of a growing population and the demands of trade. The veterinary profession has a vital role in ensuring food security, trade supply chains, and public health. This consultation aimed to examine ways of strengthening the veterinary profession in India and recruit support from key organizations for further projects to achieve these developments.
Methods: The consultation was organized by CABI and the Indian Council of Agricultural Research (ICAR) in New Delhi in December 2011 and involved over 100 experts from veterinary schools, industry, government, and international organizations. We used presentations from key organizations, followed by structured discussions, stakeholder analyses, and breakout groups to examine key themes. This presentation will evaluate the recommendations of the consultation, as well as providing insight into the issues involved in organizing such an international event.
Results: The recommendations and findings of the working groups were:
- The Government of India recognises the importance of the veterinary profession in:
  - achieving the agricultural production growth targets
  - supporting livelihoods in the rural economy
  - improving public health and controlling zoonotic diseases (such as rabies)
- Access to current international scientific knowledge is essential to strengthening the veterinary profession in India and enable practice to be based on evidence.
- The veterinary curriculum in India should be modernised to develop problem-solving skills and an evidence-based approach in both teaching and learning.
- Continuing professional development is a vital part of raising the standards of the profession: a greater emphasis on lifelong learning in the profession should be encouraged, and

veterinarians provided with the opportunities and the tools to achieve this.
- Public-private partnerships should be encouraged to maximise all available resources and capabilities in raising standards in the veterinary profession in India.

Conclusions: It was concluded that strengthening the Indian veterinary profession is a key part of meeting the plans of the Indian government and the needs of the population for economic growth and food security. Improving access to current scientific information and improving the system of continuing education was identified by all stakeholders as the most important parts of meeting these goals. The challenge for the future is turning this recognised needs and aspirations for change into practical funded projects.

5:39 p.m.

Defining Animal Health Librarian Literature while Redefining Bibliographies in the Modern World Δ

Suzanne L. Fricke, Fall 2012 Master, Library and Information Science, University of Washington–Spokane; **Vicki F. Croft, AHIP,** Head, Animal Health Library; **Cindy J. Ellis,** Information Technology Specialist, Libraries Systems; Washington State University–Pullman

Objectives: The Animal Health Libraries, Librarians, and Librarianship Bibliography (AHLLLB) is a continually updated database of references related to animal health librarianship worldwide. Static bibliography presentations no longer meet Reference and User Services Association (RUSA) guidelines for multiple indices and access points, International Federation of Library Associations and Institutions (IFLA) guidelines for full-text links, and consumer demands for currency and expanding document types. This project transformed the AHLLLB to a dynamic web-based interface.

Methods: The project began with a domain analysis of the existing bibliography, from which a domain-specific ontology for indexing authority control was created. Terms were selected based on literary warrant and compatibility with Library of Congress subject headings, Medical Subject Headings (MeSH), and the US National Agricultural Library's Thesaurus (NALT). Need for faceted navigation precipitated a comparative analysis of web-based proprietary and open-source reference management and content management software. Criteria for selection included ease of worldwide use in a variety of institutions, ability to cross-reference or incorporate multiple indexed controlled vocabularies, sustainability, customizability, simplicity of importing external content, and a user-friendly interface. An open-source reference management system called refbase was chosen based on institutional information technology (IT) support and the ability to display indexing terms. A keyword search of selected fields was maintained in the quick search feature.

Results: The new AHLLLB interface (refbase.wsulibs.wsu.edu/AHLLL/) utilizes open-source reference management software, searchable by standard bibliographic fields (author, title, date, publication, etc.), indexed subjects, and custom fields for library type, animal type, document type, and geographic and institutional affiliation. Drop-down menus allow the user to quickly identify the people, places, and themes central to the profession.

Conclusions: In this world of information overload and expanding formats, bibliographies remain an important means of guiding researchers through a topic or specialized domain. While the art of bibliography development has remained constant, presentation and discovery have changed. Reference management software often provides ease of citation import without the ability to incorporate visible vocabulary control with cross-referencing. More robust content management systems integrate vocabulary control and cross-referencing but fail to seamlessly import citations. Neither is ideal. This compromise involved customizing open-source reference management software and indexing to collocate multidisciplinary and historical document citations in the context of a collection by, for, and about animal health librarians. Lessons learned from the AHLLLB project have applications to other professional bibliographies, as well as implications for developing future bibliographic management software.

ICLC 2

Tuesday, May 7, 1:30 p.m.–3:00 p.m.

International Clinical Librarian Conference (ICLC)

International Clinical Librarian Conference 2: Emerging Roles for Health Librarians and Finding New Information in Novel Places

Cosponsored by Corporate Information Services Section, Pharmacy and Drug Information Section, Research Section, Institutional Animal Care and Use SIG, Library Marketing SIG

HCC, Level Three, Room 310

1:35 p.m.

Librarians, Educators, and Technologists: A Collaborative Approach to Mobile Resource Instruction Δ

Whitney Townsend, Liaison Services Librarian and Coordinator, Health Sciences Executive Research Service; **Mark P. MacEachern,** Liaison Services Librarian; **Carol Shannon,** Liaison and Information Services Librarian; Taubman Health Sciences Library; **Laurence Kirchmeier,** Technologist; **Christopher Chapman,** Media Services Manager; Medical School; University of Michigan–Ann Arbor

Objectives: To describe a collaboration between librarians, a mobile application developer, and a multimedia instructional designer in codeveloping an elective course on mobile information resources for second-year medical students.

Methods: The library has historically provided access to some subscription-based products and made attempts to collect, publicize, and occasionally develop mobile applications. While the library specializes in providing access to and training on online resources (including mobile resources), it rarely has the expertise and staffing to address the myriad issues and opportunities that surround mobile resources and mobile devices. To address this emerging area, librarians in a large academic health system collaborated with medical school app development and multimedia staff to offer a three-session elective course on mobile resources for second-year medical students. The course includes sessions on use of medical apps, the evaluation, usability, and issues related to medical apps and development of medical apps. The course development process, student evaluation results, and lessons learned will be shared.

1:55 p.m.

Searching Patient Data: A Role for Librarians in the Improvement of Health Care

Margaret Henderson, AHIP, Research and Education Librarian, Tompkins-McCaw Library for the Health Sciences, Virginia Commonwealth University–Midlothian

Objectives: There have been suggestions that academic librarians become indispensable partners in teaching, but another option is becoming indispensable partners in research. The advent of electronic health records has led to the creation of databases that need experts who search the records for information to improve health care. The skills possessed by biomedical librarians are transferable to this new domain.

Methods: This paper will report on an experienced medical librarian's practicum project for a certificate in biomedical informatics program. The librarian will learn about the databases through instructional sessions, shadowing and assisting faculty in the university's clinical and translational research center. Three databases will be covered: a clinical data warehouse, a cohort discovery database (i2b2), and HealthFacts, a national database with content from 160 hospitals. Organization and search strategies will be compared with the techniques used to search literature databases, offering a starting point to identify new ways to collaborate with faculty. Limitations of electronic clinical data will be considered. Analysis of collected data is important to future advances in health care and patient safety. A role in clinical informatics is one way librarians can be a part of the process.

2:15 p.m.

Consumer Health Information Services Survey (CHISS) Δ

Julia Esparza, AHIP, Clinical Medical Librarian and Assistant Professor; **Kimberly A. Pullen,** Head, Liaison Section Program; **Montie Dobbins,** Head, Access Services; Medical Library, Louisiana State University Health Sciences Center–Shreveport

Objectives: With the cessation of the MLA benchmark survey, no attempt has been made to determine how consumer health information services (CHIS) are being supplied in health care. The only other study that attempted to obtain this data was last completed in 2007 and only covered the hospital setting. Health information professionals need to know the current state of CHIS.

Methods: In 2012, researchers undertook the Consumer Health Information Services Survey (CHISS.) The goals were to determine the level of involvement librarians and libraries have in CHIS academic centers, hospitals, health systems and public institutions and detail the CHIS activities in which libraries and librarians participate. By obtaining and disseminating this information systematically, librarians will be able to benchmark the data, which will allow them to plan for the launch of new services and provide a catalog of best practices that may be feasible at their institution. A few example questions are: Who funds CHIS? What personnel are involved in CHIS? What mediums are being used (print, electronic, video) in CHIS? The survey was sent out on twenty email discussion lists of the Medical Library Association, American Library Association's ALA Direct, and other email discussion lists. This presentation will discuss the research findings.

Results: The survey is to take place in March/April of 2013. Results of the survey will be provided at One Health.

Conclusions: Conclusions will be provided at One Health.

2:35 p.m.

Mobilizing Knowledge Resources: iPad Use for Evidence-Based Care Δ

Lydia Witman, Clinical Librarian, Library Services; **Linda Sinisi,** Entity Information Officer; **Mary McCann,** Director, Informatics, Library and Privacy, Library Services; Pennsylvania Hospital–Philadelphia

Objectives: To assess the usefulness of large-screen handheld devices at the bedside and how the devices might support evidence-based practice and high-quality patient education.

Methods: A Technology Improvement Award from the National Network of Libraries of Medicine (NN/LM) was used to purchase iPad devices. Devices were distributed to clinicians including physicians, nurses, and a clinical pharmacist to use when caring for patients in the hospital setting. After completion of the study period, participants completed a survey to describe their usage such as effect on patient care and specific resources utilized. Specific resources surveyed include DynaMed, LexiComp, and

other sources already provided to hospital staff in desktop format. Qualitative analysis of the survey data was then conducted.
Results: Participants' (n=5) survey responses suggest that devices such as iPads can help support high-quality information delivery and patient care by providing information for either the clinician or the patient.
Conclusions: We were limited by the small number of participants, which decreases the external validity of our results. Infection prevention remains a concern. Technical challenges were the biggest barriers, primarily information security when accessing patients' personal health information (PHI). Nonetheless, we conclude that devices such as iPads can enhance information delivery in the hospital setting. Additional formal research is needed.

ICAHIS 4

Tuesday, May 7, 2:00 p.m.–3:00 p.m.

International Conference of Animal Health Information Specialists (ICAHIS)

International Conference of Animal Health Information Specialists 4: Exploring the History and Development of the One Health Concept

Cosponsored by Veterinary Medical Libraries Section

HCC, Level Three, Room 309

2:05 p.m.
Examining the Elephant: The Many Views of One Health
Gary Vroegindewey, Director, Global Health Initiatives, Center for Public and Corporate Veterinary Medicine, Virginia-Maryland Regional College of Veterinary Medicine, University of Maryland–College Park
Description: In the Indian legend, blind men examine an elephant, each feeling a different part: side, trunk, tail, ear, leg. Each man visualizes a different entity: a wall, snake, rope, fan, tree. One Health can be viewed as the elephant. How it is defined and used in practice is largely based on the perspective through which it is viewed. The concepts of the linkage between animal health and human health were first seen in the writings of Hippocrates and Aristotle. These relationships were codified through the studies of Rudolf Virchow (1821–1902), the father of comparative pathology and proponent of social medicine. Virchow wrote, "Between animal and human medicine there is no dividing line—nor should there be. The object is different but the experience obtained constitutes the basis of all medicine." His work informed the modern expression of One Health-One Medicine developed by Calvin Schwabe (1927–2006), who in 1984 identified the link between the health of animals and of people. The One Health concept was expanded by the emergence of H5N1 and H1N1 and the World Health Organization declaration of H1N1 as a global pandemic. It recognized that to contain and control the pandemic required understanding the disease in human, domestic and wild animals, the environmental dimensions, and their interrelationships. Today, One Health is generally viewed through one of three lenses. First is comparative medicine, studying similarities of disease processes and pathology between humans and animals. Comparative medicine focuses on how study of a disease in animals can inform the prevention, treatment, and control of a similar disease in humans. The second lens is the zoonotic focus, the study and evaluation of diseases that pass between animals and humans. Of particular interest are newly emerging diseases, including 335 that first appeared between 1940 and 2004. Of those, 60% were zoonotic and 70% of those from wild species. The third lens of One Health is an aspect that has gained additional recognition with avian influenza and other emerging diseases: the view that environment and human and animal health are inextricably linked with all aspects impacting the other. This third lens, the holistic approach, will be required to understand the determinants and contributing factors for human, animal, and ecosystem health and to address all the great challenges in health we face: newly emerging diseases, chronic disease burden, global climate change, and feeding the world.

Program Session 4

Tuesday, May 7, 3:00 p.m.–4:30 p.m.

Collection Development Section

Open Access in Action: Trends, Policies, and Institutional Activities in Support of Open Information

Cosponsored by Technical Services Section, Vision Science SIG

HCC, Level Three, Room 309

3:05 p.m.
Managing a National Health Repository
Aoife Lawton, Systems Librarian, Regional Library and Information Service, Dr. Steevens Hospital, Health Service Executive Ireland, Dublin, Ireland; **Padraig Manning,** Librarian, Library, St. Ita, Dublin, Ireland
Objectives: The objectives were: (1) to set up, manage, and maintain a national collection of health research (together with the publications of the major national health-related organizations) published by hospital- and community-based health professionals in the country, and (2) to improve access to this research through the promotion of a national open access repository.
Methods: In 2008, a focus group was held by open invitation to health professionals. A needs analysis was conducted by two surveys: one to health professionals and one to health sciences librarians in the country. Both research methods were adopted to support the development of an online repository and to secure buy-in and stakeholder participation from the outset of the project. The repository was launched in February 2009. Ongoing promotion of the repository is accomplished through events held during Open Access Week, presentations at conference, and end-user training. The repository has been indexed in a global scientific portal since 2010. A national user group of health librarians was set up in 2011. A distributed model of contributors is in place for the repository. The National Health Service issues annual calls to all hospitals.
Results: Since its inception in 2009, over 9,000 items have been catalogued ranging from the Dublin Fever Hospital reports from the early 19th century to research into gene disorders and epilepsy. A core team of information professionals drawn from a number of locations is responsible for maintaining bibliographic standards and content. Content is drawn from 136 organisations, some of which are now self-contributing. The user group provides a higher level forum for future direction of the repository and is set to expand next year. Activities to promote the repository include presentations at medical conferences, a user survey,

and the distribution of promotional materials to hospitals and community health centres. Usage statistics are encouraging, with an average monthly total of nearly 30,000 visits. Full-text downloads are an average of 11,000 per month.
Conclusions: In 2012, the Irish Government launched a National Open Access Statement, which mandates that publicly funded research outputs be freely and publicly available. The Irish National Health Service is one of 20 organisations that have endorsed it. Priorities for 2013 will be to establish an open access position for the National Health Service, maintain a dialogue with publishers, and promote further awareness of the repository at nursing and allied health conferences around the country.

3:25 p.m.
Institutional Repository in Action Δ
Sandra L. Bandy, AHIP, Chair, Content Management; **David N. King,** Professor; Robert B. Greenblatt, M.D. Library, Georgia Regents University–Augusta
Objectives: Institutional digital repositories (IDRs) can take an active role advancing the open access initiative. This paper surveys the scope and priorities of collections currently curated by the IDRs of health sciences libraries, examines the contribution of the repositories to their institution's mission and to the national and global knowledgebase, and explores the roles of librarians that emerge.
Methods: A national survey of health sciences libraries will provide current insight into the number of IDRs, their scope, and their strategies for content development. Specific emphasis will be placed upon the roles of librarians in advancing the open access initiative in their institutions and methods used for furthering the goals of their faculties and their institutions. A constellation of services pertaining to open access, electronic publishing, curatorship, and expert knowledge mapping coalesces around IDRs, advancing not only local needs, but also national and global interests.
Results: This paper reports on the scope and priorities of collections currently curated by IDRs of health sciences libraries, the contribution of repositories to their institutions' mission, and emerging roles of librarians.
Conclusions: The local, regional, national, and international contributions of IDRs will be discussed in the context of the evolving roles of librarians.

3:45 p.m.
Researchers Share Perspectives on Open Access and Scholarly Publishing: Exploratory Pilot Study Using Qualitative Analysis of Interview Transcripts Δ
Margaret E. Moore, Director, Planning, Administrative Services; **Susan Swogger,** Collections Development Librarian, Resources Management Services; **Lesley Copeland,** Research Assistant; **Kathleen McGraw,** Assistant Head, User Services, and Dental Librarian; **Carol G. Jenkins, AHIP, FMLA,** Library Director; Health Sciences Library; **Emily M. King,** Coordinator, E-Learning Services, User Experience, Undergraduate Library; University of North Carolina–Chapel Hill
Objectives: The objective was to explore authors' attitudes, motivations, and practices regarding scholarly publishing. The research team systematically compared what authors said about the costs and benefits of publishing in open access (OA) and traditional journals. Findings will guide the libraries' scholarly communications initiatives including policy advocacy, education, consultation, support for author's fees, and further research.
Methods: Semi-structured interviews were conducted with twenty authors from one university in four cohorts: (1) recipients of university funds to support publications in OA journals when no other funds are available; (2) authors who benefited from discounted authors' fees because of library's BioMedCentral membership; (3) authors who published in OA journals with no on-campus support; and (4) authors who published in journals that were not open access. Most authors were faculty; a few were postdoctoral fellows and graduate students. Research team included a library school faculty member, three graduate research assistants, and librarians from both the university's health sciences and academic libraries. Library school faculty and students conducted and transcribed the interviews; transcripts were coded by a nonlibrary research assistant and a librarian. Atlas.ti software was used in the analysis; and team members helped design the study and analyze the data.
Results: Subjects expressed a range of attitudes similar to other studies. Reaching the desired target audience and journal's prestige and quality are major factors in deciding where to publish. Authors do not typically choose a journal because of free access; they consider other factors including high visibility, higher acceptance probability, more rapid dissemination, breadth of journal's subject coverage, and willingness to publish certain types of articles. Most interviewees assume their peers will have access to their work and OA is not necessary. Authors appreciated the university's OA fund when they could not pay the fees, and many expressed concern and ambivalence about the high costs. Some consider public access even with an embargo period to be good enough or to be a form of OA. Limits: This study had a small sample drawn from authors at one university.
Conclusions: The university's OA fund is useful. This study provides another snapshot for tracking changing attitudes over time. Further research is needed to test reality of perceived attributes like rapid dissemination. Additional studies are needed about author motivations and perceptions, actual differences between traditional and OA publications, and the implications for libraries at the university and other institutions.

4:50 p.m.
An Open Access Policy for a Health Sciences University
Karen A. Butter, FMLA, University Librarian and Assistant Vice Chancellor; **Anneliese S. Taylor,** Assistant Director, Scholarly Communications and Collections; Library & Center for Knowledge Management, University of California–San Francisco
Objectives This presentation examines the passing and implementation of an institutional open access (OA) policy as a collaborative effort between academic faculty and the library.
Methods: The library has been involved in open access and scholarly communication activities for several years. After a failed attempt by university administrators to pass an OA policy several years ago, faculty decided to initiate a renewed effort. The library collaborated with faculty on presenting the policy for a vote, provided answers about open access, and helped with implementation once voted into policy. The library and faculty member championing the policy presented crucial information about the basis for the policy. The presentation was shown to several faculty groups to garner support and improve the presentation before a final vote. The library was able to demonstrate its support for broadening access to research results published by the institution. Additionally the library undertook an analysis of the economic implications of OA on the library's budget.

Results: The OA policy was passed unanimously by University of California–San Francisco (UCSF) Academic Senate faculty in May 2012, and the policy went into effect immediately. At the same time, selected publishers asked for waivers of the policy, putting pressure on the library to develop a system to generate form letters. Language for the form letters was agreed on by faculty and librarians. Within three weeks, an automated site was released that allowed faculty to generate the required forms as well as to upload final manuscripts. The library also notified publishers of the policy and had discussions to answer questions and to encourage publishers to support faculty compliance. While postprint submissions to the institutional repository have not yet increased, plans are underway to launch a more streamlined submission system specifically for papers affected by the policy.
Conclusions: The involvement of library staff in the development and implementation of the UCSF OA policy has been a valuable opportunity to engage with faculty on scholarly publishing issues and the importance of making content freely accessible. The process of informing publishers about the policy opened up channels of dialog about the importance of OA for the UCSF community. As a result of discussions with library staff, several publishers altered the terms of the policy and OA article processing fees. After a more robust and user-friendly submission system is launched later this year, we expect OA policy deposits to increase by at least 25%.

Dental Section

2013 Stat!Ref Lecture

HCC, Level Two, Room 206

3:05 p.m.
Exploring the Research on the Association between Oral Conditions and Other Diseases
Scott L. Tomar, Professor, Department of Community Dentistry and Behavioral Science, College of Dentistry, University of Florida–Gainesville
Description: The mouth is an integral part of the human anatomy and serves as the entry portal for all elements necessary to sustain life. It should therefore not be surprising that oral health is inextricably linked with the general health of the organism. Although there have long been clinical observations and research on the interrelationship between conditions in the mouth and those in other parts of the body, there has been a great deal of research activity in this area in recent years. This presentation will summarize some of the recent research on oral-systemic relationships and its potential implications for education, practice, and scholarship.

Educational Media and Technologies Section

Education and Media: Creative Advice from the Media Experts

Cosponsored by Medical Library Education Section, Libraries in Curriculum SIG

HCC, Level Three, Room 303

3:05 p.m.
Innovations in Multimedia: See One, Do One, Teach One
Jin Wu, Emerging Technologies Librarian; **Amy Chatfield,** Information Services Librarian; Norris Medical Library, University of Southern California–Los Angeles; **Emily Brennan,** Medical Librarian, MUSC Library, Medical University of South Carolina–Charleston; **Alvaro Quezada,** Library Assistant Supervisor, Norris Medical Library, University of Southern California–Los Angeles
Objectives: The University of Southern California's Norris Medical Library used multimedia platforms to invigorate promotion of its services and resources. The resulting online tutorials, digital signage, audio clips, and an interactive touchscreen were well received, reinforcing Norris's image as a next-generation library. Following requests from library users, librarians offered workshops on using multimedia to enrich publications, presentations, and instruction.
Methods: Inspired by the creative use of multimedia in various industries, a team of medical librarians decided to explore multimedia platforms and identify techniques to enhance materials that promote library services and resources. Librarians learned how to search library-licensed and free sources for image, audio, and video files; create and edit screenshots and other images; and copy, insert, and embed audio and video clips. While creating digital signage and interactive presentations, librarians discovered new uses for software they had already used. As the library's new promotional materials reached the campus community, various faculty members and graduate students asked how they could utilize the demonstrated multimedia in their academic work. In this presentation, librarians will describe how their team-learning initiative led to the development of in-house multimedia expertise and an educational workshop series for library users.
Results: Librarians taught six multimedia workshops as part of the library's monthly technology series. An average of twenty-two participants attended each workshop. Survey results showed that all participants would "be able to use at least one skill or idea in [their] future teaching or learning." The librarians learned that the combination of team teaching, focused demonstrations, and a web portal of support materials was a successful strategy. Based on the popularity of the workshops, the library will offer them periodically.
Conclusions: Skills that librarians acquire to enhance their teaching and presentations are also of value to faculty and students. By offering instruction on the use of multimedia for interactive learning and the enhancement of teaching and presentation materials, the library expands its role and increases its visibility.

3:25 p.m.
The Visually Literate Health Sciences Librarian and Instructor: Effective Sharing and Teaching with Multimedia Δ
Carolyn Schubert, Health Sciences and Nursing Librarian, Rose Library, James Madison University, Harrisonburg, VA
Objectives: With the recent production of the Association of College and Research Libraries' (ACRL's) Visual Literacy Competency Standards, I aimed to promote, develop, and educate students and faculty about the effective use of visual media and interactive technologies to foster undergraduate- and graduate-level critical thinking skills in allied health sciences courses.
Methods: Streaming media has been a growing component of the library collection over the last few years. App technologies as educational tools have also received increased attention. However, adoption and integration of apps and streaming media has been inconsistent. Development of a one-unit in-person undergraduate course on health informatics and a health informatics unit in

a graduate course on health policy created two opportunities to produce curricula incorporating visual media and interactive technologies. Collaboration with and feedback from library faculty and instructional nursing faculty informed curricular decisions. Literature searches on accessible interactive tools related to these topics were completed and paired with technologies to provide clinical use perspective along with hands-on learning.

3:45 p.m.
Education of the 21st Century Master's of Library and Information Science Student for Technical Agility Δ
Steven L. MacCall, Associate Professor, School of Library and Information Studies, University of Alabama–Tuscaloosa
Objectives: Master's of library and information science (MLIS) professors focused on health library education are continually faced with challenge of preparing their students for personal and social media technology use for entering an ever more sophisticated professional workforce. The objective of this paper is to describe identified barriers and the instructional strategies to overcome them in order to facilitate technological agility for the MLIS students taking a health librarianship course (LS534) at the University of Alabama School of Library and Information Studies (UA SLIS) between 2007 and 2012. "Technological agility" pertains to the capability of students to easily and invisibly ("without thinking about it") deploy networked personal and social technologies after course instruction on those technologies.
Methods: Since 2007, students enrolled the LS 534 health librarianship course at UA SLIS have received course instruction pertaining to the required adoption and use of networked personal and social technologies interwoven into the context of the pedagogical goals and various assignments of the course. Additionally, each student was required to compose an informal two-page description of their impressions of the use of these technologies. This paper will report on the types of required networked personal and social technologies required for the course and how they changed during the period of the study (2007–2012). Additionally, results of a content analysis of the student impressions assignment over the time period will be presented with particular interest in evaluating comments related to agility defined as ease of use and invisibility.
Results: Identified barriers to technological agility included the "why" question (why is this tool important?), reluctance in adopting technological innovation, and concerns relating to digital divide issues. Pedagogical methods included linking tool use to specific course communication needs, immersion after tool instruction, playful approach to interacting with technologies to minimize stress of adoption, and emphasis on importance of networked personal and social technologies in building distributed communities of colleagues. Also for those students who brought experience with personal technology and social media use to the course, stress was placed on the importance of understanding these technologies well enough to provide instruction on their use.
Conclusions: Preparing technologically agile MLIS graduates requires an understanding of barriers to adoption and pedagogical strategies for addressing these barriers.

4:05 p.m.
Flip that Class: New Media and Emerging Technologies for Creative Instruction
Andrew Youngkin, AHIP, Emerging Technologies and Evaluation Coordinator, National Network of Libraries of Medicine, Southeastern/Atlantic Region, Health Sciences and Human Services Library, University of Maryland–Baltimore
Objectives: A "flipped classroom" model will provide a framework to discuss how emerging technologies and media may be creatively employed in educational situations to provide advanced teachable moments and enhance overall instructional and learning experiences.
Methods: To accomplish the objective outlined above, this paper will:

- provide an overview of how various presentation softwares, styles, and philosophies can affect, impact, influence use of new technologies and media
- discuss free, open-access sources for finding unique instructional media such as audio files, video clips, and high-quality and unique imagery
- explain how emerging technologies such as cloud computing, social media, screencasting, and virtual meeting spaces are being used to share, discuss, collaborate, and experience new media, as well, as traditional media in new ways
- suggest ways of incorporating new hardware products and mobile devices such as smartphones, tablets, Internet television, etc., into projects to share instructional content and educational media
- identify potential technological, logistical, and accessibility obstacles, barriers, and interferences and suggestions techniques and strategies on how to prevent, avoid, and overcome these challenges

Results: No specific results to share as this paper is not based on research, but discussion will center around points outlined in the above "Methods" section.
Conclusions: The following will be used as background and/or basis for a thesis: Along with increased connectivity, accessibility, and transparency, a wide array of new media and technologies are poised to provide excellent educational opportunities—both in the classroom and beyond—to assess learning needs, augment instruction, facilitate collaboration and communication, improve accessibility, and enhance learning outcomes.

History of the Health Sciences Section

The Role of Alternative and Indigenous Medicine in Global Health: Historical and Contemporary Perspectives

Cosponsored by Chiropractic Libraries Section, Corporate Information Services Section, Complementary and Alternative Medicine SIG, Osteopathic Libraries SIG

HCC, Level Three, Room 301

3:05 p.m.
Complementary and Alternative Medicine: From Ancient to Modern Times
Stephen Greenberg, Coordinator, Public Services, History of Medicine Division, National Library of Medicine, Bethesda, MD
Description: Stephen Greenberg—historian, librarian, and member of the History of Health Sciences Section—will introduce the program from a historical perspective that connects all the presentations. He will speak about culture, health, and illness, and draw on the National Library of Medicine's exhibit, "Native Voices: Native Peoples' Concepts of Health and Illness," to illustrate how these relationships connect.

3:25 p.m.
New Growth from Old Roots: The Evolving Role of Librarians in the Traditional and Complementary and Alternative Medicine (CAM) Communities
Julia Whelan, AHIP, Reference and Education Librarian, Countway Library of Medicine, Medical School, Harvard University, Boston, MA
Description: Today's librarians find exciting opportunities working in the areas of traditional and complementary and alternative medicine (CAM). Roles vary from information discovery and expert searching, to collection building (historical and contemporary), research team collaboration, and education. This work updates and expands a qualitative study conducted in 2006 [Crumley ET. Exploring the roles of librarians and health care professionals involved with complementary and alternative medicine. J Med Lib Assoc. 2006 Jan;94(1):81–9.]. Results from an email survey indicated that, of the 85 respondents, 84% answer CAM questions, 61% select or catalog CAM materials, 36% provide CAM information for consumers, 36 % teach CAM topics, and 34% participate in CAM research projects. In the last 6 years, 29% of respondents increased the amount of time they spend on CAM topics and 39% felt that emphasis on CAM increased at their institutions. The most common sources consulted for CAM information were medical databases indexing the primary literature (99%), tertiary CAM reference databases (66%), followed by print or online books, CAM journals, and web guides linking to reputable websites. In addition, interviews with librarians actively involved with CAM inform our discussion of how librarians serve this community of interest and its various user groups, which include clinicians, biomedical researchers, patients, health sciences students, social scientists, and business. Whether they search ancient texts or assess information exchanged on social networking sites, librarians have a vital role in educating users on how to find high-quality, evidence-based CAM information.

3:45 p.m.
Natural Product Education: Past and Present
Lana Dvorkin-Camiel, Director, Applied Natural Products Programs, School of Pharmacy, Massachusetts College of Pharmacy and Health Sciences–Boston
Description: This presentation will introduce the audience to the historical aspects of education in natural products. We will briefly review the roots of herbal education in order to understand how clinicians and educators supported and promoted the use of herbal medicines and natural products in the past. Using an example of one contemporary health care educational program, Lana Dvorkin-Camiel will review some effective teaching practices in a natural products elective course that is offered to future conventional health care providers. One area of emphasis in this course is the development of information seeking skills on the subject of natural products.

4:05 p.m.
The Prevalence of Herb Usage among Racial and Ethnic Minorities in the United States
Paula Gardiner, Assistant Director, Program for Integrative Medicine and the Healthcare Disparities, Boston Medical Center, Boston, MA
Description: Complementary and alternative medicine (CAM) therapies such as herbals, meditation, yoga, and acupuncture are increasingly popular in the United States. They have long been used in many non-Western countries, and in the United States among immigrant groups, and racial/ethnic minorities. Studies are needed to determine which CAM therapies are used, whether they are safe and effective, and if they should be integrated into mainstream clinical care. This presentation will draw on Paula Gardiner's research and writing on these topics, and discuss her collaboration with a librarian who is coauthor in the writing and research process.

Hospital Libraries Section

Structuring Our Services for the Future in Health Care

Cosponsored by Health Association Libraries Section, Clinical Librarians and Evidence-Based Health Care SIG, New Members SIG

HCC, Level Three, Room 310

3:05 p.m.
Informatics in the Hospital Library
P. J. Grier, AHIP, Coordinator, National Network of Libraries of Medicine, Southeastern/Atlantic Region, Health Sciences and Human Services Library, University of Maryland–Baltimore
Background: Informatics explores how a computer can process information. In hospital libraries, examples of informatics enhance service especially for patient care.
Objective: This presentation will discuss several informatics applications used in a hospital library and how they can be implemented.
Methods: This presentation is a demonstration of evidence-based searching, creating a mobile website, creating LibGuides, shadowing physicians in clinical librarianship, and attaching information to the electronic health record in a hospital library. Tips will be offered on how all of these can be implemented.
Discussion: Point-of-care tools—like Clinical Evidence, UpToDate, and DynaMed—will answer background and foreground questions. PubMed's Clinical Queries, the TRIP Database, and the Cochrane Library will feature search results in an evidence-based way. The LibGuide created by the National Network of Libraries of Medicine (NN/LM) for hospital libraries will be helpful for everyday practice and be a model for creating LibGuides for the hospital library. Doing some kind of clinical outreach, including shadowing a physician, will bring the library to the patient care team. The hospital librarian will see firsthand what information should be attached to the electronic health record.
Conclusions: In collaboration with others, these applications of informatics from the hospital library are doable and demonstrate sophistication by the librarian to enhance patient care.

3:25 p.m.
A Clinical Librarian in the English National Health Service
Jane Surtees, Clinical Librarian, Library and Knowledge Service, Royal Derby Hospital, Derby, United Kingdom
Background: The English National Health Service is the largest and one of the oldest single-payer health care system in the world. It is now undergoing some of the biggest change seen in its sixty-year history. One major change stems from the controversial Health and Social Care Act 2012 that includes provisions including allowing private companies to provide health care under the auspices of the National Health Service.
Aim: This paper will demonstrate the value of a clinical librarian service in the English National Health Service now and in the future.

Results: Projects are underway looking at community outreach and the challenges that that entails, such as a wider geographical area and general practitioners being given greater commissioning powers under the new Health and Social Care Act. Self-paced e-learning modules for statistics for critical appraisal are being designed. Mobile technologies are being developed for literature searching.
Conclusion: The clinical librarian dedicated to reaching out to general practitioners in the community and supporting evidence-based practice makes a major contribution to the current and future English National Health Service.

3:45 p.m.
Stepping out Boldly to Do Great Things: Linking Information Resources to the Electronic Health Record
Donna Flake, AHIP, Library Director, SEAHEC Medical Library, South East Area Health Education Center, Wilmington, NC
Background: In the economic downfall in the United States, hospital libraries have not fared too well. Many hospital libraries have been closed or severely downsized. Sometimes it is hard to justify our existence when our information resources cost more than the revenue we may generate. Hospital librarians need to find bold innovative ways to show our value to the hospital community.
Aim: This paper encourages hospital librarians to step out boldly and knowledgeably to work closely with their hospitals' information technology (IT) departments to "lead the way" and bring information resources to the point of care by linking them to the electronic health record (EHR). This paper also describes working with IT to integrate a digital library into the hospital's EHR.
Methods: The library in partnership with the hospital's IT department set up an InfoButton in the EHR so that a physician can click on the patient diagnosis and be taken seamlessly to that specific diagnosis in a point-of-care product.
Results: The physicians have enthusiastically embraced this opportunity for contextual searching. The IT department has been very pleased with this partnership. The hospital's chief information officer said, "The SEAHEC Library is a treasure for our hospital. Donna Flake and her capable librarians have worked closely with my department to integrate electronic databases into our Epic. They are innovative, hardworking, and set a very high standard."
Conclusion: Forming a partnership with IT to bring information to the moment of decision making for patient care puts the spotlight on the library and plays an important role in improving health.

4:05 p.m.
In Support of Magnet Status: Added Value of a Librarian on the Nursing Research Council
Danielle Linden, AHIP, Manager, Burlew Medical Library, St. Joseph Hospital, Orange, CA
Background: The American Nurses Credentialing Center (ANCC) developed the Magnet Recognition Program "to recognize health care organizations for quality patient care, nursing excellence and innovations in professional nursing practice." As of 2012, approximately 7% of hospitals in the United States have achieved ANCC Magnet Recognition status. The Nursing Research Council supports the Magnet Model's components: new knowledge, innovations and improvements, incorporation of the application of existing and new evidence, and collaborative interdisciplinary relationships.
Aim: This paper demonstrates the added value of a librarian on the Nursing Resource Council to support the components of Magnet status.
Results: The culture of the Magnet designation naturally incorporates library services and librarian support. It is a convincing argument for the librarian to join the Nursing Research Council. As a member of the Nursing Research Council, the librarian skillfully demonstrates expertise in evidence-based literature searching to support a change in practice, investigate a new research project, or provide current awareness. Also, the librarian conducts training sessions and contributes to the council's blog.
Conclusion: The librarian, as a member of the Nursing Research Council, supports Magnet status especially by contributing expertise in evidence-based literature searching.

International Cooperation Section

Healthcare Information For All: HIFA 2015

Cosponsored by Corporate Information Services Section, Federal Libraries Section, Public Health/Health Administration Section

HCC, Level Three, Room 312

3:05 p.m.
Improving Medical Education in Kenya: An International Collaboration
Alexa Mayo, AHIP, Associate Director, Services; **Anna Tatro,** Outreach Librarian, Liaison and Outreach Services; Health Sciences and Human Services Library, University of Maryland–Baltimore
Objectives: This paper describes a partnership between the University of Nairobi College of Health Sciences (UON-CHS) and the University of Maryland (UM) to improve the quality of medical education in Kenya. The UM Health Sciences and Human Services Library (HS/HSL) is assisting UON-CHS Library as it develops tools, resources, and expertise to meet changing medical information needs in a digital world.
Methods: The Partnership for Innovative Medical Education in Kenya, a US National Institutes of Health-funded international collaboration, is building an innovative program in medical education centered on HIV prevention, treatment, and care. One of its aims is to improve the quality of medical education in Kenya. Development of new services and skills at the UON-CHS Library are critical to the program's success. The library project has several components: a needs assessment of the UON-CHS Library, an HS/HSL-hosted learning visit for UON-CHS librarians and information technology (IT) professionals, post-visit support for UON-CHS staff, and an evaluation of the program's effectiveness.
Results: In July 2012, three UON-CHS Library/IT staff visited the HS/HSL for a seven-day learning visit. UON staff met with approximately twenty HS/HSL staff in public services, IT support, resources management, and library administration. Learning sessions consisted of a combination of discussion, demonstration, and hands-on classroom instruction. Response to the learning visit was positive. As a follow up to the visit, the HS/HSL project team recommended specific skills, tools, and best practices to enhance the UON-CHS Library. In spring 2013, the UON-CHS Librarians, with support from the HS/HSL project team, designed training modules for faculty and medical students as part of the program to improve medical education.

Conclusions: The successful collaboration between the HS/HSL and UON-CHS Library is ongoing. As UON trains more than half of all Kenyan doctors, a successful program to improve the quality of medical education will have a major impact on health outcomes in Kenya.

3:21 p.m.

Outcome of Librarian-Initiated HIV/AIDS Prevention Interventions Program in Selected Rural Communities in Nigeria Δ

Grace A. Ajuwon, Reference and Information Services Librarian, E. Latunde Odeku Medical Library, College of Medicine; **Helen O. Komolafe-Opadeji,** Collection Development Librarian, Library; University of Ibadan, Ibadan, Nigeria; **Akin Awoyemi,** Systems Librarian, Library, Adeyemi College of Education, Ondo, Nigeria; **Bose Ikhizama,** Library Director, Institute of Agricultural Research and Training, Obafemi Awolowo University, Ibadan, Nigeria

Introduction and Objective: HIV poses major public health problems in Nigeria. More people get infected than those enrolled for treatment. While the government, nongovernmental organizations, and the media have been involved in HIV/AIDS prevention and control programs, librarians have made little contribution to these efforts. This intervention program aimed to meet the HIV/AIDS information needs of medically underserved rural dwellers in Nigeria.

Methods: The study has both quantitative and qualitative components. An intervention (pre and post) study design was used, and the program was evaluated three months after using focus group discussion (FGD). The study population is heads of household (male and female) from twenty villages and hamlets in Oyo State. A needs assessment was carried out to determine content and the training needs of the participants. A twenty-five-item questionnaire was designed and used to measure the immediate outcome of the program (before and after the program), while FGD was used for follow up. Two public health experts in HIV/AIDS prevention and control served as resources persons for the training program, while the four librarians provided information materials on HIV/AIDS to the participants. Three intervention activities were implemented namely development of educational materials (posters), training, and drama presentation.

Results: There were more females (67%) than males. Virtually all were aware of HIV/AIDS, and 87% got to know about it through the media (radio/television). Overall mean scores on knowledge of HIV/AIDS at pretest and posttest was (8.0 and 11.0; X^2=32.98, P=0.00). 50% believed that HIV could be contacted through mosquito bite and hand shake and with an infected person. Comparison of overall mean scores on knowledge of HIV/AIDS by gender shows significant difference (X^2=9.63, P=0.00). Also, comparison of overall mean scores of trainees attitude towards PLWHA at pre- and post-test shows significant difference (X^2=4.8, P=0.03).

Conclusions: Awareness of HIV is high among the people, so are misconceptions and negative attitude towards those living with the virus. With intervention, came increased knowledge about the disease and improved attitude toward those living with HIV and AIDS. HIV prevention and intervention programs targeted at people in rural, medically underserved communities will go a long help to stem the tide and further spread of the disease. Also, provision and dissemination of information on HIV and AIDS to rural settlers is an important prevention strategy.

3:37 p.m.

Crossing Boundaries to Provide Health Outreach to African Americans and African Immigrants

Lydia N. Collins, Consumer Health Coordinator, National Network of Libraries of Medicine, Middle Atlantic Region, Health Sciences Library System; **Annamore Matambanadzo,** Research Assistant Professor, Department of Family Medicine, School of Medicine; University of Pittsburgh, Pittsburgh, PA

Objectives: This paper describes the outreach efforts of a local AIDS Coalition in southwestern Pennsylvania that is working to assist African American and African immigrant populations improve upon poor health seeking behaviors. An overview of their role in collaborating with the regional medical to provide training to minority health professionals who work directly with the underserved populations will be described.

Methods: African Americans historically have poor health seeking behaviors and must overcome barriers, real and perceived, in interacting with health care systems. In this region (2010), Black non-Hispanic persons compose 40% (1,234 cases) of the approximately 3,100 living HIV/AIDS cases in the region. Worldwide, sub-Saharan Africa is the epicenter for HIV/AIDS, and 68% of global cases reside there. This is where the majority of immigrant populations in this city come from. A locally funded project has resulted in collaborations among 5 community agencies working to target outreach and health literacy programming to these high-risk underserved minority populations. Results of this collaborative effort reflecting pre- and post-test data collection for project participants will be discussed. Due to the stigma associated with HIV/AIDS especially among African Immigrants and refugees, nontraditional recruitment strategies were used. Outreach workers approached service providers and leaders of the Union of African Communities in the City of Pittsburgh and Allegheny County, Pennsylvania, who further introduced them to the leaders of African immigrant and refugee communities. Additionally, through collaborative efforts with the University of Pittsburgh's Center for Health Equity's health promotion and disease prevention barbershop initiative, an extension of the project occurred. Outreach workers were introduced to the managers of barbershops, beauty shops, and hair braiding saloons, where weekly sessions were held to increase HIV/AIDS awareness and improve upon the desire to be tested. Outreach in barbershops, beauty shops, and hair braiding saloons proved to be successful in reaching both African immigrants and African American populations. Finally, case studies will provide libraries and community organizations interested in replicating health literacy training and programming to health professionals and consumers ideas for future projects.

Results: As a result of the funding provided by National Network of Libraries of Medicine, Middle Atlantic Region, the AIDS Coalition of southwestern Pennsylvania has been able to provide health literacy training and broaden awareness of the risk of HIV/AIDS through local health fairs and training sessions. Training sessions introduced participants to the National Library of Medicine HIV/AIDS portal as well as provided an opportunity for age appropriate activities for youth participants. Initially, the target outreach population was adults and caregivers as well as minority health professionals. However, as the project continued opportunities to provide training to youth participants expanded, including an invitation to participate in a local high schools' health course in the public schools. African immigrant populations were harder to reach, although outreach efforts that were completed were successful.

Conclusions: There is still much work to be done in order to educate African American and African immigrant populations about the risk of HIV/AIDS. It will be essential to foster partnerships with additional community- and faith-based organizations to increase health outreach goal achievement. The opportunity to provide education to these susceptible populations was made available; however, additional work needs to be done in order to increase the number of individuals tested for HIV.

3:53 p.m.

A Librarian Partnership in Support of Guatemalan Research Training

Carlos Rodriguez, Head, Patron Services; **Anne K. Seymour,** Associate Director; Biomedical Library, University of Pennsylvania–Philadelphia

Objectives: This paper will describe the role of librarians at the Biomedical Library, University of Pennsylvania, in collaborating with university faculty and Guatemalan librarians and faculty at two partner institutions (University of San Carlos and University of Francisco Marroquin) to support a training initiative to build research capacity in Guatemala.

Methods: The University of Pennsylvania has a comprehensive training program to build research capacity in Guatemala in partnership with two Guatemalan universities: University of San Carlos and University of Francisco Marroquin. As an extension of a global health outreach and mobile telemedicine program in Guatemala, librarians are supporting the modular training program. A medical librarian with expertise in human subject research and internal review board (IRB) operations will play a role in the August 2012 bioethics module by leading case study discussions with Guatemalan physicians and researchers. The August 2013 module will cover database and clinical trial management with a section on searching and critical appraisal of the medical literature and managing citations taught by both the Penn librarians and their Guatemalan counterparts. First, Guatemalan librarian skills in MEDLINE searching and reference management software will be enhanced through in person and online instruction. In collaboration, the librarians will develop a curriculum and teach in August 2013.

4:09 p.m.

Capacity Development of, Access to, and Use of Quality Health Information for Students, Researchers, and Health Workers in Africa: The Work of the Network of African Medical Librarians (NAML)

Grace A. Ajuwon, Reference and Information Services Librarian, E. Latunde Odeku Medical Library, College of Medicine, University of Ibadan, Ibadan, Nigeria; **Alison A. Kinengyere,** Head, Albert Cook Medical Library, Makerere University, Kampala, Uganda; **Christine W. Kanyengo,** Deputy University Librarian, School of Veterinary Medicine, University of Zambia, Zambia, Zambia; **Nancy Kamau,** Deputy University Librarian, Library, Kenya Methodist University, Meru, Nairobi, Kenya; **Abdrahamane Anne,** Medical Librarian, Pharmacy and Dentistry, University of Bamako, Bamako, Mali; **Cristina C. Horta,** Health Information Consultant, Furtado Consults, Maputo, Mozambique; **Masimba Muziringa,** Assistant Deputy Librarian, Library, College of Health Sciences, University of Zimbabwe, Harare, Zimbabwe

Objectives: The Internet is an important source of health information for health care professionals and the general public. Faculty, students, health care providers, librarians, and policy makers in Africa lack online searching and retrieval skills for better health outcomes and policy formulation. This paper discusses the role of the Network of African Medical Librarians (NAML) in addressing lack of information searching skills.

Methods: The network's mission is to expand the frontiers of knowledge through training of and outreach to African librarians, the academic community, health care professionals, policy makers, and the public in finding, organizing, and using health information in collaboration with other organizations such as Medical Education Partnership Initiative (MEPI), Forum for African Medical Editors (FAME), and Association for Health Information and Libraries in Africa (AHILA), among others. The NAML consists of past associate fellows of the National Library of Medicine (NLM) from six African countries namely Kenya, Zambia, Mozambique, Mali, Nigeria, and Morocco and two affiliates of NLM from Uganda and Zimbabwe. NAML received initial support from NLM but now relies on funds from successful grant applications and collaboration with other partners. NAML has a website with relevant information resources for users accessible at www.karibouconnections.net/wordpress/medlibafrica/.

Results: The network supports access to and use of health information through training in Africa and has written a training manual titled, *Finding, Organizing and Using Health Information,* a training manual for students, researchers, and health workers in Africa. This manual is freely accessible online. Using the manual, the network members have been involved in training activities for health care workers, students, and researchers on the continent for better health outcomes. In addition, NAML, through training, promotes the various NLM information products and services in Africa. The network is also currently developing institutional repositories in order to provide free access to local health content.

Conclusions: NAML's effort in capacity building has made an impact in accessing and using health information available on the Internet. It has created awareness about NLM information products and services to librarians, health care providers, students, and researchers. The institutional repositories are expected to increase access to locally produced research evidence and give visibility to the institutions and the authors.

Nursing and Allied Health Resources Section

One Need: Supporting Nursing and Health Science Provider Practice in a Diverse World

Cosponsored by African American Medical Librarians Alliance SIG, Libraries in Curriculum SIG, International Cooperation Section

HCC, Level Three, Room 311

3:05 p.m.

Information Empowerment: Predeparture Training for Faculty and Students in Global Health

Gurpreet Rana, Global Health Coordinator, Taubman Health Sciences Library, University of Michigan–Ann Arbor

Objectives: Taubman Health Sciences Library at the University of Michigan is collaborating with health sciences units to provide information skills training in preparation for faculty- and student-based international travel. Information skills training is empowering faculty and students to create stronger collaborations around the world.

Methods: As part of a global university that is active on the world stage, faculty and students are engaging in global health research, health-based student internships, and international collaborations in health. The library has become increasingly in-

volved in training faculty and students in searching international literature, creating online guides to prepare faculty and students in global health resources, providing country-specific data sources and statistical resources, building awareness of mobile resources for global health, and encouraging the investigation of international news media.
Results: Use of relevant information resources in global health has enhanced international research and training experiences and built foundations for lifelong learning.
Conclusions: Increasingly, information skills training in global health has become a significant aspect in predeparture training and orientation for University of Michigan's health sciences schools. This paper describes and assesses the impact of librarian integration in predeparture training.

3:25 p.m.
Factors Influencing the Use of Electronic Theses and Dissertations in Nursing Scholarship Δ
David A. Nolfi, AHIP, Health Sciences Librarian and Library Assessment Coordinator, Gumberg Library, Duquesne University, Pittsburgh, PA; **Diana Blackwood,** Faculty Librarian, Health Sciences, and Vice Chancellor, Curtin University Library, Curtin University, Perth, Australia; **Susan Copeland,** Senior Information Advisor, Robert Gordon University, Aberdeen, United Kingdom; **Linda M. Goodfellow,** Associate Professor and Interim Director, Center for Nursing Research, School of Nursing, Duquesne University, Pittsburgh, PA; **Colin Macduff,** Faculty, School of Nursing and Midwifery, Robert Gordon University, Aberdeen, United Kingdom; **Gavin Leslie,** Professor, Critical Care Nursing, and Director, Research and Development, Curtin University, Perth, Australia
Objectives: Electronic theses and dissertations offer free access to cutting edge nursing research that can benefit nurse-scholars worldwide. This study aimed to obtain an initial understanding of nursing school faculty, graduate students, and alumni's awareness and use of electronic theses and dissertations (ETDs). The study also sought to identify benefits and/or difficulties experienced by ETD authors and users and what factors contributed to these experiences.
Methods: The authors developed a descriptive online survey to investigate the awareness and use of ETDs and digital libraries among nursing school faculty, graduate students, and alumni in Australia, New Zealand, the United Kingdom, and the United States. Schools were identified that were believed to be in the vanguard of nursing ETD development based on ETD output and submission requirements; then deans and directors were asked to forward survey invitations to potential participants. The twenty-five survey questions included forced choice responses and open-ended questions. They survey addressed demographics as well as participants' use of ETDs and digital libraries. The research team, consisting of a nurse and librarian from each country, reviewed the questions to ensure that differences in terminology and practice across countries were adequately addressed.
Results: A total of 209 nurse-scholars completed the survey. Forty-nine percent work or attend university in the United Kingdom, 32% in the United States, 16% in Australia, and 0.5% in New Zealand. Thirty-six percent use ETDs for research, 5% for clinical practice, and 13% for both research and clinical practice. Forty-four percent access ETDs in their institutions' libraries but only 18% access ETDs through national or international digital libraries. By comparison, 88% of respondents use CINAHL and MEDLINE/PubMed. Asked to select all applicable benefits and difficulties, 42% indicated "free access to nursing research" as a benefit. Difficulties included: finding ETD libraries (45%), searching ETD databases effectively (32%), and locating full-text.
Conclusions: We believe this is the first international study of nursing ETD use. Results show that nursing faculty, students, and alumni have little experience using ETDs. Additionally, nurse-scholars experience significant barriers finding ETD libraries, searching for ETDs, and locating full-text. Libraries should explore ways to educate nurse-scholars about finding, locating, and using ETDs. Possible remedies include partnering with vendors to index (and link to) ETDs in traditional databases, working with nurse researchers to develop standards for organizing ETDs, and encouraging open access to all ETDs.

3:45 p.m.
Building Capacity to Support Global Health Research on and off Campus
Mellanye Lackey, Global Public Health Librarian; **Carol G. Jenkins, AHIP, FMLA,** Library Director; **Kathleen McGraw,** Assistant Head, User Services, and Dental Librarian; **Susan Swogger,** Collections Development Librarian, Resources Management Services; Health Sciences Library; **Sara Suiter,** Student, School of Information Library Science; University of North Carolina–Chapel Hill
Objectives: To build capacity in an academic health sciences library to effectively support global health researchers using existing tools such as electronic reference, LibGuides, and outreach and through online, collaborative tools. The library has a long history of supporting global health researchers and projects. Lean budgets require prioritization and organizational strategy.
Methods: The university's researchers conduct projects around the world and have varying levels of information needs. The librarians prioritized global health research projects for focused outreach and support. Criteria for prioritization included (1) interest in partnering with the library, (2) potential for funding library services, (3) significance of project to the university, (4) alignment with library goals, and (5) responsiveness to inquiries. An updated global engagement website and global health LibGuide served as launch pads to highlight successful case studies of projects benefitting from library support. The pages also offer further suggestions for how the library might help. Services offered included expanded electronic and chat reference, the creation of global health topics LibGuides with feedback from researchers and end users, and increased support for systematic reviews in global health. A library committee advises librarians' efforts to outreach global health researchers on campus and determines the library's strategic plan for global engagement.
Results: The committee approach works well to keep attention focused on global health as a library-wide interest. Because the group is established with regular meetings, strategic goals, cross-library representatives, and a modest travel budget, the library has an active global presence on campus. Librarians from the academic affairs library and library school students volunteered to serve on the committee. With increased capacity, the library can advertise more services and draw attention to successful outcomes. One such project involved a mediated search requested by a global health principal investigator, which generated positive publicity for the library and resulted in a compelling annual appeal letter used for fundraising for the library.
Conclusions: This library utilizes a global health engagement group to meet the information needs of global health projects.

Future directions for the group might include offering HINARI trainings online, continual development and refinement of subject specific LibGuides, data management, or advising on the use of the campus repository for gray literature produced by university researchers. Larger goals for global engagement at the library might include taking on knowledge management tasks for research projects; partnerships to teach open, online courses; or increased access to global health information.

4:05 p.m.

Supporting Nursing Researchers and Practitioners Worldwide: Mapping the Literature of Public Health and Community Nursing Δ

Elizabeth Fine Weinfurter, Associate Librarian, Liaison and Instruction; **Anne Beschnett,** Liaison and Outreach Librarian; Bio-Medical Library, University of Minnesota–Minneapolis

Objectives: The purpose of this study was to identify the journals most cited in public health and community nursing and to determine which databases provide the most thorough indexing access to these journals. The evidence base for research and practice in these areas has borderless implications and is especially geared toward international collaboration and practice in global settings.

Methods: Two source journals of public health nursing, *Public Health Nursing* and the *Journal of Community Health Nursing,* were subjected to citation analysis based on Bradford's Law of Scattering. The methodology follows that set forth in the MLA Nursing and Allied Health Resources Section's project to map the nursing literature and is an update of the same study done in 2007.

Research Section

Librarians as Researchers: Practicing What We Preach in Scholarly Publications

Cosponsored by Medical Library Education Section, Public Health/Health Administration Section

HCC, Level Three, Room 305

3:05 p.m.

Perils of Publication: Temptations I Have Faced and Even Some More

(Kathleen) Ann McKibbon, FMLA, Associate Professor and Director, Master of Science in eHealth, Department of Clinical Epidemiology and Biostatistics, Faculty of Health Sciences, McMaster University, Hamilton, ON, Canada

Description: As I look back on my publishing career, I realize I have been tempted at times to make my publishing easier or be more interesting and influential. I will describe some of these temptations with respect to authorship (ghost and guest authorship), review and inclusion of already published studies, analysis of my own data (twists of findings), presentation of findings (stretching the truth or evidence just a bit), and other slips (e.g., plagiarism [the most common sin in publishing], forgetting to get ethics approval or register a trial). I will briefly mention other publishing challenges (mistakes, fabrication of data, and fraud; manipulation of images; funding and influence; and publication of data from others such as graduate students and post docs) and show examples from Retraction Watch (www.retractionwatch.wordpress.com) where poor publishing practices have affected jobs and lives as well as the reputation of individuals, journals, and institutions.

3:25 p.m.

Altmetrics: Determining the Full Impact of Scholarship Δ

Dean Hendrix, Assistant Director, University Libraries, University Libraries, University at Buffalo, Buffalo, NY; **Brandi Tuttle, AHIP,** Research and Education Librarian, Medical Center Library & Archives, Duke University, Durham, NC

Objectives: Data from the social web, known as altmetrics, measure research impact outside of traditional bibliometrics. The authors will introduce altmetrics and report on research undertaken to discover relationships between altmetrics, article view statistics, and bibliometric indicators from Web of Science. The ultimate objective is to determine whether altmetrics offer new and distinct dimensions in evaluating research.

Methods: The authors systematically collected (1) altmetrics data from Impact Story (www.impactstory.org); (2) statistics on article views; and (3) bibliometric indicators from Web of Science for cited articles and reviews published in *PLoS Medicine* and the *Journal of the Medical Library Association (JMLA).* In SPSS, the authors performed separate principal components analyses (PCA), a multivariate statistical technique, on the article-level data for each journal to understand the underlying structure of the variables' relationships by reducing them to a smaller number of hidden principal components. The authors analyzed the results to ascertain the existence, definition, and strength of specific relationships between principal components.

Results: Descriptive statistics (mean, range, standard deviation) of the collected data (citations, article view data, and altmetrics) confirmed obvious differences in the scale and reach of the two journals and their disciplines: medicine and library and information science. However, a comparative analysis of citations, download data, and altmetrics revealed differing interpretations on the size of the influence and impact gap between *PLoS Medicine* and *JMLA.* The authors performed several principal component analyses on *JMLA* and *PLoS Medicine* data. The total explained variance for the 2 extracted *PLoS Medicine* factors and 3 extracted *JMLA* factors was 83% and 79%, respectively. For *PLoS Medicine,* the first factor clustered 5 citation metrics together strongly and to a lesser extent 2 other variables--PubMed Central (PMC) figure views and PMC supplementary data views--and the second factor strongly associates social media measures with download metrics. For *JMLA,* the first factor closely associates hypertext markup language (HTML) views, portable document format (PDF) views, and Mendeley data and weakly associates Google Scholar citations; the second factor clustered 3 citation measures; and the third factor links Facebook and Twitter data together.

Conclusion: In two distinct disciplines, our research strongly suggests that altmetrics and article view data characterize unique dimensions of research and do not replicate citation analysis, the traditional method of measuring research impact. Citations measures from disparate sources closely associated with each other but very little else. Only citations from Google Scholar demonstrated associations with variables outside of bibliometrics. Our analyses show strong associations between social media measures and article view data, albeit the clustering was weaker between social media data and figure views and supplementary data views. In examining more granular data sets, PCAs reveal similar associations and further reinforce this study's conclusions. In the age of digital scholarship, our results indicate that research evaluations based solely on citations may be incomplete. Multidimensional approach that uses altmetrics and article view analytics

in conjunction with bibliometrics produces more authentic and well-rounded research evaluations that takes readership, scholarly discussion, immediacy, and other indirect impacts into account.

3:45 p.m.
Librarian Readiness for Research Partnerships Δ
Emily Mazure, AHIP, Biomedical Research Liaison Librarian, Medical Center Library & Archives, Duke University, Durham, NC; **Kristine M. Alpi, AHIP,** Director, William Rand Kenan, Jr. Library of Veterinary Medicine, North Carolina State University–Raleigh
Objectives: To investigate where health sciences librarians are in terms of preparedness to partner on funded research involving data from human participants. We hypothesize librarians involved in research will be more prepared and that the majority of respondents are contemplating further engagement in research. A follow up survey at six months will assess whether any change in research-readiness has occurred.
Methods: We developed a web-based survey asking about previous research experience and indicators of research readiness: responsible conduct of research training, institutional review board (IRB) application experience, an online curriculum vitae and/or Public Health Service grant application (PH398) biographical sketch, being discoverable in research community profiling sites, exposure to data analysis tools or consultants, use of software to prepare bibliographies for publication, submission of manuscripts online, and knowledge of library policies on participation in research. Survey responses were formulated to reflect the Stages of Change (Transtheoretical) Model, of precontemplation, contemplation, preparation, action, and maintenance. After pilot-testing and IRB approval, we surveyed the Research Section and a chapter of MLA. Aggregate data from the survey were shared with those groups. A second survey, distributed after six months, asked participants if they reviewed our results and reassessed their research preparedness.
Results: Our initial survey had 133 respondents, 16% of 809 unique emails on the Research Section and Mid-Atlantic Chapter lists. Overall, 50% of responses across all indicators reflected completion at any time; most common were responsible conduct of research training (70%), IRB application (63%), data analysis (61%), and manuscript submission (59%). Not commonly completed were PH398 biosketch (30%) and profiling site use (42%). Across all indicators, 60% of Research Section members compared with 40% of non-section respondents ($P<0.0001$) were in a completion stage. Collectively, 51% of responses involved action or maintenance, leaving 16% in contemplation or preparation, and 33% in precontemplation.
Conclusions: The findings represent librarians interested in research; 97% of respondents indicated they felt being engaged in research was important. In the first survey, a higher proportion of Research Section members indicated being in action and maintenance phases of indicator completion, supporting the hypothesis that they are fairly well-prepared research partners. However, the low percentage (16%) of responses in either contemplation or preparation phases refutes the hypothesis that the majority of respondents are contemplating further engagement in these indicator activities. Results from the second survey may show changes in these patterns when analyzed for presentation.

4:05 p.m.
Harnessing the Classroom Action Research Model to Enrich Information Literacy Instruction Techniques in the M1 Curriculum Δ
Misa Mi, AHIP, Associate Professor and Medical Librarian; **Stephanie M. Swanberg, AHIP,** Assistant Professor and Medical Librarian; **Nancy Bulgarelli,** Director; Medical Library, William Beaumont School of Medicine, Oakland University, Rochester, MI
Objectives: One of the challenges facing any educator, including medical educators, is to translate classroom teaching practice into educational scholarship. Medical library faculty at an emerging medical school conducted an action research project to evaluate the effectiveness of and improve upon the inaugural two years of mandatory information literacy instruction in the first year of medical school (M1) capstone curriculum.
Methods: The Watts classroom action research model is a cornerstone of the general education literature, providing a paradigm for teachers to become researchers of their own work via a systematic process of examination, assessment, and improvement of instructional techniques. In applying this model to medical education, an identical pre- and post-instruction assessment was administered to students prior to and after completion of their M1 year, during which time they attended nine hours of information literacy instruction. The assessment evaluated students' knowledge, skills, and attitudes on medical information resources, evidence-based medicine, and plagiarism. Additional data collection methods included in-class activities, graded search assignments, and observations of students' utilization of information resources during team-based learning in the greater curriculum. This paper will detail the process of action research, this project's research results, and an action plan for improving instructional techniques.

Veterinary Medical Libraries Section

Librarians at Work: Building a One Health Perspective

Cosponsored by Public Services Section, African American Medical Librarians Alliance SIG, Institutional Animal Care and Use SIG, Library Marketing SIG, New Members SIG

HCC, Level Three, Room 313

3:05 p.m.
Establishing an Integrated Study Resource for Veterinary Students: The Library and the "Study Landscape"
Fiona J. L. Brown, Liaison Librarian, Lady Smith of Kelvin Veterinary Library, University of Edinburgh, Easter Bush, Midlothian, United Kingdom
Objectives: In 2011, the veterinary school moved its teaching and learning activities on campus, co-locating with the existing veterinary hospitals. In common with developments across the academic library sector, the library now links to the Study Landscape, a student-centered space for self-directed learning. This allows students access to a range of physical and electronic resources including specimens and "case-based" resources.
Methods: This paper is a case study presenting the practical experiences of the author in collaborating with academic and technical colleagues to populate the Study Landscape with appropriate resources. The veterinary librarian is a member of the Study Landscape committee, which identifies material to include in the Study Landscape. For the library, the librarian selects books to

display relevant to resources on display in the study landscape. This can highlight to the students that the library and its resources complement other learning resources. This collaboration has increased our understanding of the different learning resources used in veterinary medicine and can assist us in our provision of more "traditional" library services to the veterinary school.

3:21 p.m.

Interprofessional Role of Librarians in Medical Students' Specialty Selection Process

Sarah Cantrell, Education Services Coordinator; **C. Scott Dorris,** Digital Information Services Librarian; Dahlgren Memorial Library, Georgetown University Medical Center, Washington, DC

Objectives: This presentation illustrates how academic health sciences librarians created effective specialty decision-making workshops for third-year medical students. Workshop success can be attributed to building a strong interprofessional relationship with the academic deans, integrating clinicians for a panel discussion in the workshop, and adapting the session to reflect students' shifting needs.

Methods: At the request of the dean of the school of medicine, librarians set out to create and lead a two-hour specialty decision-making workshop and an associated online resource guide for third-year medical students. To strengthen interprofessional relationships and ensure mutual goals were accomplished, librarians met with academic deans to conduct a needs assessment and share expertise. Furthermore, librarians attended the Association of American Medical Colleges (AAMC) Careers in Medicine training and read literature on the topic in order to increase knowledge of specialty and residency decision-making processes. Librarians recruited a multidisciplinary team of clinicians into the workshop as a way to strengthen the content by combining the research and information-seeking skills of the librarians with the firsthand experience of practicing physicians.

Results: Since November 2010, nine specialty decision-making workshops were offered to third-year medical students. Pre-workshop surveys were distributed to the registered students to gauge their expectations and librarians tailor the content to the students' needs. Two librarians teach the first half of the session on personal reflection and research of specialty and residency information. The discussion panel is composed of clinicians from varying specialties. Here, students may ask questions and raise concerns regarding any topic related to specialty decision making, the Match, and residency. An evaluation survey is distributed at the end of the workshop. Academic deans and library administrators are provided with progress reports throughout the year, enabling feedback and suggestions from all parties. The workshops have not only gone through revisions in content, but have also become acutely responsive to the students' shifting needs throughout the academic year.

Conclusions: The strength of these workshops lies in the students' engagement with the subject matter and the balance between the information presented by the librarians and that of the clinicians. Primary challenges include maintaining student enrollment levels as well as securing clinician panelists. Introducing iterative revisions throughout the year proved useful and is appreciated by the students. Interprofessional relations with clinicians and medical school administration have strengthened and fostered the development of new collaborative services, including mock interview sessions for fourth-year students.

3:37 p.m.

Interprofessional Small Group Assignments for Medical and Pharmacy Students

Heather A. McEwen, Reference Librarian, Oliver Ocasek Regional Medical Information Center; **Michelle Cudnik,** Associate Professor, Department of Pharmacy Practice and Department of Internal Medicine, College of Medicine; **Kristin R. Baughman**, Assistant Professor; **Michael Hewit,** Biostatistician; **Lisa N. Weiss**, Associate Professor; Department of Family and Community Medicine; Northeast Ohio Medical University–Rootstown

Objectives: Health care professionals must find answers to clinical questions and evaluate the biomedical literature. First-year medical and pharmacy students were assigned interprofessional projects in two evidence-based medicine courses: a clinical question assignment and two journal club presentations that required practice with these skills. A librarian was a member of the faculty team that administered, taught, and graded the assignments.

Methods: Interprofessional small student groups were required to give two journal club presentations and answer one clinical question during their evidence-based medicine coursework. Faculty and small group leaders included pharmacists; physicians; social, behavioral, and basic scientists; and a librarian. Statistics help sessions, real-time clinical question email streams, and a journal club presentation library guide were available to help students prepare for the assignments. Students worked together to answer their clinical question and evaluate the literature. Each group of students gave their presentation to a faculty small group leader and a second group of students. Small groups were evaluated by their small group leader. Interprofessional faculty, including a librarian, guided students to appropriate resources and helped them with different components of the assignments. Student and faculty evaluations are utilized for future course and assignment development.

Results: The journal club sessions and clinical question assignment are both active learning activities that allow students to apply knowledge gained during lectures. Students worked with the same small group leader for all three sessions. This allowed faculty members to observe and guide their improvement over time. Students were evaluated as a group by faculty and their peers. A rubric was utilized to grade small group presentations. Small group activities and small group leaders were positively evaluated by students in the course evaluations. Librarians gave lectures, provided help sessions, and gave individual assistance to students. One librarian acted as a small group leader for one of the journal club sessions.

Conclusions: Interprofessional small group experiences allow medical and pharmacy students to learn from each other and practice working as a team. The assignments also provide opportunities for students to read and evaluate the biomedical literature and answer clinical questions prior to their clinical education. Students will continue to utilize both their evidence-based medicine and their teamwork skills during the rest of their education and their medical careers.

3:53 p.m.

From Bench to Bedside: Building Interprofessional Innovations

Jeanne Marie LeBer, AHIP, Associate Director, Education and Research; **Jean P. Shipman, AHIP, FMLA,** Director; **Joan Marcotte Gregory, AHIP,** Associate Director, Information Resources and Facilities; **Alice I. Weber, AHIP,** InterProfessional

Education Librarian; Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City
Objectives: Librarians are vital members of interprofessional teams in a library-embedded innovation center. This Center for Medical Innovation encourages the design of biomedical devices and the resolution of patient care issues through cross-team perspectives, knowledge, and collaborations. Authors share how librarians from multiple University of Utah libraries are part of these creative teams that are shaping the future of the world's health.
Methods: Innovations and libraries are a natural fit. The Spencer S. Eccles Library created space for the Center for Medical Innovation where ideas could be conceived and explored, supporting evidence researched, products or devices designed, and resulting discovery and dissemination venues identified. Librarians provide expertise to teams to encourage innovative approaches to health care. Teams comprise students and faculty from all parts of the university, including architecture, psychology, business, communications, engineering, and health sciences.
Results: Results from two focus groups with past innovation student teams were used to inform librarian efforts. A wallet card listing library experts and contact information was developed to facilitate communication. Wallet cards were distributed at an orientation that introduced teams to librarians and resources. The card displays a QR code that links to an Innovation Research Guide of resources for concept generation, prototyping, implementation, evaluation, and more. Patent searching and research support (MyRA) were reviewed with the students during the orientation. Teams are championed by peer leaders who work with librarians to ensure information needs are met.
Conclusions: Librarians can contribute as consultants to teams to ensure that critical information is applied in a timely and efficient manner. By providing expertise, resources, and space, librarians bring people together to successfully innovate. Having innovation teams and others meet in the library has led to recognition of library faculty as valuable partners and collaborators. Another outcome has been the enhanced utilization of the library, which has included a remodel. As a result of proactive outreach efforts to campus leaders and programs, librarians are providing instruction to health sciences teams, additional space for more team interactions, and targeted coaching to the interprofessional teams.

4:09 p.m.
Animals, Humans, and Librarians: A Library's Partnership Experience with the Institutional Review Board and Institutional Animal Care and Use Committee
Katie A. Prentice, AHIP, Head, Education and Information Services; **Angela E. Myatt,** Curriculum Liaison Librarian; Briscoe Library; **Luke Rosenberger,** Director, Library Technology and Historical Collections, Health Science Center Libraries; **Christine S. Gaspard,** Head, Access Services and Interlibrary Loan; **Eric Willman,** Systems Librarian; Briscoe Library; University of Texas Health Science Center–San Antonio
Objectives: In academic health sciences centers, the role of librarians is evolving. Librarian engagement in the university research mission through membership as non-scientists on the institutional review board (IRB) and institutional animal care and use committee (IACUC) provides a valuable contribution and visible recognition of professional librarians. This symbiotic partnership with the research community is beneficial for the librarians and their respective boards.
Methods: Since the mid-1980s, librarians have been nonscientist members of our university's IACUC. While traditional IRBs and IACUCs comprise researcher investigators, faculty, and community representatives, nonscientists are required for both. Librarians were invited to become nonscientist members by the then head of the animal care research program, who understood their potential contribution. In 2004, the library director proposed adding librarians as nonscientist IRB members to the director of research regulatory programs to more fully integrate librarians into the research process. University IACUC and IRB staff utilize librarian members' skills by counting on them for literature searching, search strategy critique, and meeting participation. This partnership represents a unique and worthwhile opportunity. A survey will investigate IRB and IACUC collaborations at other academic health sciences center libraries.
Results: Librarians report a better understanding of what is involved in the complete research process and knowledge of the relationship between laboratory researchers, state and federal regulations, and university oversight. As a result of librarian participation on the IRB and IACUC, requests for librarian consultations by researchers have increased. In 2012, IACUC librarians became primary reviewers of new protocols, which is a change from their previous role as general committee members who reviewed literature search strategies.
Conclusions: Active participation by librarians in the research community and research process enhances the credibility of the librarians as information professionals and heightens the visibility of the library itself. Membership on the IRB and IACUC clearly demonstrates the library's strong commitment to the university's research mission. This partnership is highly recommended and beneficial to everyone involved.

ICLC 3

Tuesday, May 7, 4:30 p.m.–6:00 p.m.

International Clinical Librarian Conference

International Clinical Librarian Conference 3: Practicalities of Searching for Clinical Librarians, Informationists, and Embedded Librarians

Cosponsored by Pharmacy and Drug Information Section, Institutional Animal Care and Use SIG

HCC, Level Two, Room 206

4:35 p.m.
Panelist #1
Lisa M. Kruesi, Associate Director, Scholarly Publishing and Digitisation Service, University of Queensland Library, University of Queensland–New Farm, Australia

4:51 p.m.
Panelist #2
Carol Lefebvre, Independent Information Consultant, Lefebvre Associates, Cochrane Information Retrieval Methods Group, Oxford, United Kingdom

5:07 p.m.
Panelist #3
Terry Ann Jankowski, AHIP, Head, User Experience, Health Sciences Library, University of Washington–Seattle

5:23 p.m.
Panelist #4
Sarah Sutton, Clinical Librarian, Leicester Royal Infirmary, University Hospitals of Leicester, Leicester, United Kingdom

5:39 p.m.
Panelist #5
Rebecca Jerome, Health Knowledge Information Specialist, Eskind Biomedical Library, Vanderbilt University Medical Center, Nashville, TN

Session Program

Tuesday, May 7, 6:00 p.m.–7:30 p.m.

Medical Informatics Section

Top Technology Trends VI

Cosponsored by Educational Media and Technologies Section, Hospital Libraries Section

HCC, Level Three, Room 312

6:05 p.m.
Integrating Library Resources into Course Management Systems: Meeting the Students Where They Live
Amy Blevins, Clinical Education Librarian, Hardin Library for the Health Sciences, University of Iowa–Iowa City; **Megan Besaw,** Liaison, College of Allied Health Sciences and College of Health and Human Performance, William E. Laupus Health Sciences Library, East Carolina University, Greenville, NC
Description: Two librarians from two institutions will share information on course management systems. This presentation will include information on some of the more popular fee-based course management systems like Desire2Learn and Blackboard along with open source options like Google Sites. The common functionalities of these tools will be demonstrated along with information about how libraries and librarians can provide support and become involved with online courses.

6:18 p.m.
3-D Interactive Anatomy: The BioDigital Human Δ
Joey Nicholson, Education and Curriculum Librarian; **Stephen Maher,** Collection Development Librarian, NYU Health Sciences Libraries, New York University–New York
Objectives: Anatomy education continues to evolve, with much time now being spent learning in digital environments with reliance on imaging and electronic atlases. This project incorporates the expertise of librarians, educational technologists, and anatomy faculty to improve and enhance medical student education specifically related to anatomy.
Methods: To address the modernization of anatomy education, the New York University (NYU) School of Medicine Division of Educational Informatics has created a three dimensional (3-D) interactive anatomy application for use in the anatomy lab, the BioDigital Human. Currently, the BioDigital Human will work on a desktop computer or via a projector and enhanced using 3-D glasses. This presentation will demonstrate the main features of the BioDigital Human and highlight how it can be used to improve medical student outcomes in anatomy lab.

6:32 p.m.
Utilizing Semantic MEDLINE for Collaborations and Literature-Based Discovery Δ
Susan L. Roy, NLM Associate Fellow, National Library of Medicine, NIH Library; **Thomas Rindflesch,** Cognitive Science Branch; Lister Hill National Center for Biomedical Communications; National Institutes of Health, Bethesda, MD
Objective: To introduce Semantic MEDLINE, an advanced information management application that extracts semantic relations from citations in PubMed, and show how the tool can have tremendous potential in scientific discovery.
Methods: A demonstration on how Semantic MEDLINE is used will be highlighted. Additionally, different ways librarians can utilize Semantic MEDLINE as a tool in outreach, collaborations, and literature-based discovery will be illustrated.
Results and Conclusions: Because of the increase in published biomedical literature, it is becoming difficult to continuously stay abreast of peer-reviewed research, even within one's own field of study. Semantic MEDLINE integrates PubMed searching, advanced natural language processing, automatic summarization, and visualization into a single portal and can be used to help manage the results of PubMed searching. Here, we show how librarians can use Semantic MEDLINE to assist in the process of knowledge-based discovery.

6:45 p.m.
Latest Trends in Mobile Technology
Heather N. Holmes, AHIP, Clinical Informationist, Medical Library, Summa Health System, Akron, OH
Description: Since last year's Tech Trends panel we have seen the release of new Apple products in the "New iPad" (iPad 3), iPhone 5, and iOS 6; new Android phones and tablets and software; a new Windows phone; and upgrades to Nooks and Kindles as well. Each of these products has a place both now and in the future of medicine. Clinicians (and clinical librarians!) are using them as learning resources at the point of care and as general reference aids; patients are using them to access mobile health information (and everything else!); and librarians are using them at all points in between. Even the vendors we work with are (mostly) coming up to speed with developing mobile-friendly websites and applications to make access easier for the end users. We will look at how the devices are being used in the health sciences from operating rooms, to clinical rounds, to outpatient offices, and of course, in our libraries. Demos will be given when appropriate, as well as real-life examples.

6:57 p.m.
Bringing Evidence-based Medicine to the Point of Care for Clinical Education
Alisha H. Miles, AHIP, Library Assistant Professor and Assistant Director, Public Services, Mercer Medical Library, School of Medicine, Mercer University, Macon, GA
Description: Medical librarians throughout the field are serving as part of the biomedical informatics team to integrate quality evidence at the point of care utilizing the latest technology, and effectively manage and analyze data. This includes projects such as knowledge management for order sets, infobuttons in elec-

tronic health records, and quality consumer health information embedded in the personal health record. The demonstration will provide a brief overview of the implementation of some of the latest tools used at the point of care to integrate information in the electronic health record, manage the information within the resources, and improve accessibility of the resources.

7:12 p.m.
Third-Party Applications Aim to Provide Greater Access to Social Media Content/Improving Accessibility to Twitter with Easy Chirp
Andrew Youngkin, AHIP, Emerging Technologies and Evaluation Coordinator, National Network of Libraries of Medicine, Southeastern/Atlantic Region, Health Sciences and Human Services Library, University of Maryland–Baltimore
Description: Twitter reports that 460,000 new accounts are set-up each day—including libraries choosing to use Twitter as part of their marketing, outreach, and communication strategies. As social media continues to be evermore pervasive and relevant in how users access and share information, an increase of applications, websites, and tools have been popping up to enhance and/or enable greater accessibility to social media content to persons with disabilities. Easy Chirp is a website that provides an accessible interface with Twitter, allowing disabled users greater opportunity to tap into valuable real-time information streams and participate in the conversation that is Twitter. This presentation will discuss the need for technologies and applications that provide greater accessibility to social media content for persons with disabilities—specifically to the content mediated and hosted by social media giant, Twitter. Easy Chirp will be showcased to demonstrate how Twitter content can filtered and reformatted to be more accessible. Additional applications for making Twitter more accessible on mobile devices may also be discussed based on the most relevant application in spring 2013.

Poster Session 1

Sunday, May 5, 1:30 p.m.–2:30 p.m.

HCC, Level Two, Exhibit Hall

1

Transferring Knowledge: Equity for Health Professionals in Ethiopia

Sandra A. Kendall, Director, Sidney Liswood Library, Mount Sinai Hospital, Toronto, ON, Canada; **Alemayehu Bisrat,** Chief Medical Librarian, Health Sciences Library, Addis Ababa University, Black Lion Specialized Hospital, Addis Ababa, Ethiopia; **Carla Hagstrom,** Instruction Coordinator, Gerstein Science Information Centre, University of Toronto, Toronto, ON, Canada; **Jeanna Hough,** Manager, Health Sciences Library, Halton Health Care, Toronto, ON, Canada

Objectives: In response to the Ethiopian Government's aim to train 5,000 specialist medical doctors (MDs) and doctorates (PhDs) and 10,000 master's graduates by 2018, the Toronto Addis Ababa Academic Collaboration (TAAAC) was established to co-build capacity and sustainability in graduate programming at Addis Ababa University (UAA). Enhancing the discipline of library sciences is essential to successfully support this expansion.

Methods: With international collaboration, a program for clinical medical librarians will build capacity in library literacy skills, including the accessing of up-to-date information, with foundational knowledge of appraising the evolving literature in evidence-based medicine and critical thinking skills to support medical faculty and trainees. TAAAC-Library Sciences program has embarked on a plan for a prolonged partnership between the University of Toronto (UofT) and AAU by supporting library services with annual train-the-trainer programs and the provision of access by affiliated researchers to the UofT libraries (Ptolemy) to online resources including clinical decision support tools.

Results: Responding to the needs outlined by AAU, librarians and library assistants participate in workshops to upgrade clinical library skills and then pass this knowledge to others. We have begun to assess the impact of our library training sessions and the outcomes of this transfer of knowledge. We do know that librarians from UofT play a valuable role in supporting and assisting the learning of Ethiopian librarians and in return benefit from a wider understanding and experience of knowledge translation skills.

Conclusions: In October 2011, of the 144 learners attending the TAAAC-LSP training sessions, 12 of these learners were clinical residents. Our deliberate focus was on librarians and library workers. In our 2011 post training survey, the 16 librarians who participated in our sessions indicated that in 3 months they had trained over 140 new learners. In November 2012, we had over 250 learners attending the TAAAC-LSP training sessions. This year 166 learners were clinical residents from the following medical disciplines.

- general surgery
- nursing
- emergency medicine
- radiology
- physiology
- orthopaedic surgery
- psychiatry residents

For our 16 librarian counterparts, we provided classes on HINARI, Ptolemy, EBM, marketing, web design and leadership for librarians. Our next steps will be to work with our steering committee to formulate a joint plan addressing the educations requests from our Ethiopian colleagues.

5

Big Deal Journal Subscription Packages: Are They Worth the Cost? Δ

Jie Li, AHIP, Assistance Director, Collection Management; **Trey Lemley, AHIP,** Information Services Librarian; Charles M. Baugh Biomedical Library, University of South Alabama–Mobile

Objectives: To assess the cost effectiveness of "big deal" journal subscription packages.

Methods: Usage reports are analyzed to calculate the cost per article download both for journals included in big deal subscription packages and for individual journals to which an academic health sciences library subscribes. Cost-per-article use for the entire big deal packages, cost-per-article use for health sciences journals in the big deal, cost-per-article use for individual journals in the library's collection, average cost for journal articles obtained from other libraries via interlibrary loan, and average pay-per-view cost for journal articles from publishers are compared for cost effectiveness for the library's journal subscription.

Methods: Usage reports are analyzed to calculate the cost-per-article download for journals included in big deal subscription packages, for individual journals to which the University of South Alabama Biomedical Library subscribes, for articles obtained via interlibrary loan and for articles obtained directly from the publisher. In particular, five calculations were made: (1) cost-per-article use for all big deal packages for the entire university, (2) cost-per-article use for big deal health sciences journals, (3) cost-per-article use for individual journals in the library's collection, (4) the average cost for journal articles obtained via interlibrary loan from other libraries, and (5) the average "pay-per-view" cost for journal articles obtained directly from publishers. The results of these five calculations are then compared to determine cost effectiveness for the library's journal subscription.

Results: Cost per article by publisher (in big deal packages) ranges from a low of $1.77 (Sage) to a high of $9.13 (Mary Ann Liebert), with a mean amount of $6.04. The cost per article of the Biomedical Library's individual journal subscription ranges from a low of $0.25 to a high of $58.04, with a mean amount of $17.19. The cost per article obtained via interlibrary loan ranges from a low of $5 to a high of $30, with a mean amount of $15.35. (This figure did not include articles obtained for free, i.e., at no cost to the library.) Finally, the cost per article obtained directly from the publisher ranges from a low of $15 to $80, with a mean amount of $37.72.

Conclusions: Based on the cost-per-article use, the "big deal" is cost effective.

8

A Bibliometric Analysis Comparing International Collaboration Rates Over Two Decades: 1991–2010 Δ

Judy Burnham, AHIP, Director, Charles M. Baugh Biomedical Library; **Dennis Fell,** Chair; **Amanda Schermerhorn,** Student; **Corey Irby,** Student; **Eric David,** Student; Department of Physical Therapy; University of South Alabama–Mobile

Objectives: Publication in peer-reviewed journals is essential to transmit knowledge-based information. International collaboration can extend that information. The purpose of this bibliometric study was to examine changing incidence of international co-authorship among four core physical therapy journals including *Physical Therapy, Physiotherapy, Physiotherapy Canada,* and *Australian Journal of Physical Therapy.*

Methods: All 3,172 articles published in the 4 core journals from 1991–2010 were analyzed. Data for each available citation were downloaded from the Scopus database into a spreadsheet, while

others were manually entered. Each citation was manually coded for international collaboration status. Then each internationally coauthored paper was coded for countries of origin of primary author and each secondary author, and for physical therapy content category. Data were compared between the decades 1991–2000 and 2001–2010.
Results: The increase in rate of international collaboration comparing 1991–2000 (2.22% of total publications) to 2001–2010 (7.88% of total publications) was statistically significant and was observed in each journal. In this sample, primary authors of internationally coauthored papers were most frequently from the United States, followed by Canada, Australia, and the United Kingdom, and the most frequent primary physical therapy content area was the category of test and measures.
Conclusions: The rate of international collaboration in these core physical therapy journals was significantly greater in 2001–2010 as compared to 1991–2000 indicating that physical therapy researchers are increasingly involved in international collaboration.

9

A Collaborative Tool for Improving the Quality of Grant Aims Δ

Alisa Surkis, Translational Science Librarian; **Karen Hanson,** Knowledge Systems Librarian; NYU Health Sciences Libraries, New York University–New York; **Raymond Fung,** Systems II Developer, Health Sciences Library, New York University Hospital–Brooklyn; **Yindalon Aphinyanaphongs,** Research Assistant Professor, School of Medicine, New York University–New York
Objectives: We created a system to provide junior researchers a means of reaching out to other investigators for feedback on the early stages of their grant proposals. Our objective was to improve the quality and fundability of junior researchers' proposals and to expand their research network and provide small-scale mentoring opportunities for more established researchers.
Methods: An open source bulletin board system, phpBB, was customized to establish a virtual mentoring space for researchers. Junior faculty post the specific aims of their grant proposals to a form and then enter the email addresses of researchers from whom they are seeking input. Our institutional research networking tool is linked to from the form to aid in locating appropriate researchers. The software sends an email to the selected faculty member inviting them to post critiques of the proposed aims and suggestions for collaborators or resources to the bulletin board. The email contains a link to the forum where the aims and other feedback are posted, to allow for open discourse between the junior researcher and all selected faculty. The system tracks this faculty mentoring activity.
Results: Testing of the system is ongoing and includes attendees of grant-writing courses offered by the medical center's postdoctoral program and office of science and research, and participants of training programs in our Clinical and Translational Science Institute (CTSI). Feedback is leading to refinements of the system. One refinement, requested by the CTSI, which serves all of New York University (NYU), was to broaden the authentication process to include the entire NYU community, rather than the medical center only. With few informatics systems available to both the medical center and the main campus, this provides an important potential pipeline between the two sets of researchers. The system use has also been broadened to serve purposes beyond that originally intended. The system was used as a feedback forum in a CTSI informatics course where the students' assignment was to write specific aims. There have also been discussions around using the system as a venue for asynchronous mock study sections and as a forum for protocol review.
Conclusions: This is a promising system for facilitating junior researchers in reaching out for feedback on how to improve their grant aims, as well as for other types of course and grant feedback. After further testing, efforts will be made to integrate it into the institutional grant preparation workflow.

13

A Longitudinal Analysis of Clinical Questions Asked at Professor Rounds Δ

Nancy A. Bianchi, Library Associate Professor and Health Sciences Librarian, Dana Medical Library, University of Vermont–Burlington
Objectives: Clinical questions asked at residents' educational conferences and the resources used to answer them can present intriguing learning and liaison opportunities. This ongoing study to analyze clinical questions asked at pediatric professor rounds incorporates updates to data presented at MLA '10. Implications of this research cross contemporary and traditional boundaries, including medical curricula development, library collections, and library liaison activities.
Methods: Pediatric professor rounds is a biweekly educational conference in pediatrics attended by residents, medical students, medical faculty, community preceptors, and a clinical informationist. Each conference highlights a general pediatric, pediatric intensive care unit (PICU), neonatal intensive care unit (NICU), or outpatient case presentation followed by a didactic session. The informationist participates at pediatric professor rounds by actively listening, noting pertinent patient details, and gathering questions that arise during the case presentations and discussions. These questions may be direct requests for information or they may be queries embedded in the discussions that the informationist recognizes as an information need. Back at the library, she searches the literature for answers to these clinical questions and returns her findings to the chief resident. An eight-year review of these clinical questions and the resources used to answer them was conducted to further the development of medical curricula and informationist roles in liaison programs.
Results: The informationist collected 281 clinical questions at professor rounds during the 9-year time period. Of these, 157 (56%) questions were classified as "received" or direct inquiries. The remaining 124 (44%) questions were captured as "perceived" information needs from the case discussions. Using the evidence-based clinical practice model of "background" and "foreground" questions, the 281 clinical questions included 200 (71%) background questions and 81 (29%) foreground questions. Answers were found for 257 (91%) of the 281 questions using journal articles (89%), textbooks (10%), textbook and journal articles (7%), and Google (3%), with some overlap. For 98% of the questions, MEDLINE was the first-line resource; other resources used, in decreasing order, included PsycINFO, Web of Science, and Clinical Pharmacology. The most frequently consulted textbook was *Online Metabolic & Molecular Bases of Inherited Disease (OMMBID)*. For answerable questions, an average of two resources was needed.
Conclusions: Clinical questions are frequently encountered at educational conferences such as professor rounds. Most of these queries can be answered using journal and textbook-based medical knowledge resources available through the library. These questions and the resources used to answer them present valuable opportunities for expanding clinical case-based learning while utilizing the expertise of a clinical informationist.

17

A Study of Clinical Faculty Use of Information Resources on the iPad Δ

Laurissa Gann, Outreach Coordinator and Senior Librarian, Research Medical Library, University of Texas MD Anderson Cancer Center–Houston; **Shamsha Damani,** Program Coordinator, Sustainability Services Group, Waste Management, Houston, TX; **Stephanie Fulton, AHIP,** Executive Director, Research Medical Library, University of Texas MD Anderson Cancer Center–Houston

Objectives: The goal of this study was to determine to what extent clinical faculty at the University of Texas MD Anderson Cancer Center access information resources on their iPads or other tablet devices. The Research Medical Library will use the information garnered from the study to design a method for efficiently delivering library resources for tablets.

Methods: The library collaborated with a master's of business administration (MBA) student from Rice University to develop a 14-question survey. The survey questions were designed to discern how clinical faculty members use their iPads or tablets at work and what information resources they access or would like to access. The survey was approved and distributed by the Quality Institutional Review Board at MD Anderson and promoted to over 930 clinical faculty members during May and June of 2012.

Results: The response rate for the survey was 29.2% (272 responses). Overall, the findings show that almost three-fourths of clinical faculty members have an iPad or tablet, but less than half (37.1%) of respondents are satisfied with accessing medical information through these devices. Moreover, a large majority of faculty, 88.6% of respondents, are interested in receiving assistance from the library in downloading useful information resources/application on their iPads.

Conclusions: The data collected supports the need for an intervening role on behalf of the research medical library to assist current and future iPad/tablet owners in more effectively obtaining needed medical information. In response, the library created a tablet optimized mobile website where clinical faculty members and other staff can access the top journals in their field both on and off-campus. The library has also developed and delivered training for institutional iPad users.

21

Active Learning and Library Instruction: Team Teaching with Faculty Physicians

Whitney Townsend, Liaison Services Librarian and Coordinator, Health Sciences Executive Research Service; **Mark P. MacEachern,** Liaison Services Librarian; Taubman Health Sciences Library; **Rajesh S. Mangrulkar,** Associate Dean, Medical Student Education; University of Michigan–Ann Arbor

Objectives: To present the variety of active learning techniques integrated into a second-year evidence-based medicine (EBM) computer session taught jointly by librarians and medical school faculty.

Methods: Problem-based learning techniques have long been integrated into both undergraduate medical education and library instruction sessions. By integrating active learning activities into standard hands-on EBM instruction, students are required to engage more with both the library resources, and the case-based subject content that they are learning. This poster will provide the details of a second-year EBM resources session co-taught by librarians and a medical school faculty physician. Active learning strategies include: problem-based learning, survey and discussion, think-pair-share, hands-on with help, and discussion/debate. Student outcomes and recommendations for implementation will be discussed.

25

Addressing the MLA Research Agenda Questions: Where Are We Now? Δ

Marie T. Ascher, AHIP, Associate Director, User Services, Health Sciences Library, New York Medical College–Valhalla; **Heather N. Holmes, AHIP,** Clinical Informationist, Medical Library, Summa Health System, Akron, OH; **Jonathan Eldredge, AHIP,** Associate Professor, Health Sciences Library and Informatics Center, University of New Mexico–Albuquerque

Objectives: During 2011, the MLA Research Section's Research Agenda Committee completed a delphi study that resulted in the identification of important and answerable questions relevant to MLA leaders and researchers. This poster and accompanying documentation will provide information on the extent to which there are current research studies addressing these questions.

Methods: Literature review: The Research Agenda Committee will conduct replicable literature reviews on each of the fifteen questions in order to report on current progress and identify studies to date on each. The results of these literature reviews will be shared using bibliographic software and social media. The poster will report on each question, the search strategies used, the number of relevant studies, the level of relevance to the question, and the type of studies available and will provide links to the bibliographies. These tools will assist researchers in getting started and identifying high-need areas of research.

Results: The committee revised its plan to put out a call for teams who will conduct the systematic reviews on each of the questions. This call for participation is currently out with an application deadline for January 25, 2013. The members of the Research Agenda Committee will serve as liaisons to the systematic review teams once they are formed, providing a framework and some consistency among the teams.

Conclusions: The poster will provide a status update at the time of One Health. At this point, it is expected that teams will be in the midst of the beginning stages of their systematic reviews.

29

All in One Place: Building a Web Portal to Support Evidence-Based Nursing Practice in the Clinical Setting

Tracy E. Powell, AHIP, Associate Professor and Clinical Services Librarian; **Nicole Mitchell,** Assistant Professor, Reference Librarian, and School of Optometry Liaison; **Cara L. Wilhelm,** Assistant Professor and Clinical Reference Librarian; Lister Hill Library of the Health Sciences, University of Alabama–Birmingham

Objectives: To describe the collaboration between clinical nurses in a Magnet-designated academic medical center and health sciences librarians that resulted in a novel use of library technology to develop an evidence-based practice (EBP) web portal. The experiences involved in initiating the project and in developing the final product will be described, as well as lessons learned and future directions.

Methods: Librarians from the hospital and the academic health sciences library were approached by Center for Nursing Excellence (CNE) staff with the need for a website to incorporate evidence-based practice and research into the daily clinical nursing practice in a large academic medical center. The CNE wanted to include a wide variety of content, including video tutorials; links to handouts, resources, and websites; examples on how to do research; and professional development resources such as

how to craft a CV and create a poster. The librarians suggested building the website around the LibGuide platform, because of its versatility. The final design and content resulted from the collaboration between the librarians and the CNE staff. The CNE EBP and Research Guide for Nursing Practice officially debuted during 2011 National Nurses Week, serving as a model for future clinical LibGuides.
Results: The CNE EBP and Research Guide for Nursing Practice provides access to both library and nonlibrary related material in an easy-to-use web portal for practicing nurses via the flexible LibGuides platform. After its 2011 launch, the CNE guide became the most often visited of the library's LibGuides, and it remains so according to both LibGuides' internal statistics and Google Analytics. The guide provides a one-stop site for a variety of information related to Magnet, EBP, research, and professional development as well as support in using relevant library resources. The guide continues to grow with new initiatives and as nurses suggest additions to the site. Recently, the CNE initiated a committee of nurses and librarians to evaluate the site for updates and new content on an ongoing basis.
Conclusion: As University of Alabama–Birmingham Hospital has progressed through its Magnet journey, collaborations between nurses at all levels and librarians have continued to grow and develop. The website for CNE grew out of this established working relationship and was facilitated by the library's growing experience with the LibGuides platform. This LibGuide will serve as a model for other subject-related portals to support activities in the clinical setting, including one related to quality initiatives.

33

An Exploratory Study of Academic Health Sciences Libraries and Mobile Resources Δ

Ana D. Cleveland, AHIP, Regents Professor and Director, Health Informatics Program; **Jodi L. Philbrick,** Course Coordinator, Health Informatics Program; **Vyacheslav I. Zavalin,** Research Assistant, Department of Library and Information Sciences; College of Information, University of North Texas–Denton
Objectives: The objective of the study is to identify how many academic health sciences libraries have the following: (1) mobile websites, (2) mobile applications, and (3) mobile resources pages.
Methods: The researchers conducted an analysis of the websites of the academic health sciences libraries represented in the membership directory of the Association of Academic Health Sciences Libraries (www.aahsl.org/mc/directory/viewsimplesearch.do) to identify if they had mobile websites, mobile applications, and mobile resources pages for their users. In addition, the researchers analyzed the mobile applications of the libraries and their institutions available in Apple's App Store and Android Market.
Results: Over half of the academic health sciences libraries have mobile websites, and less than a quarter have mobile applications. However, three-quarters of the libraries have mobile resources pages available for their users. The most frequent combination of these services is mobile websites and mobile resources pages. Approximately 10% of the academic health sciences libraries have all three: mobile websites, mobile applications, and mobile resource pages.
Conclusions: Academic health sciences libraries are recognizing the use of mobile devices among their client populations, as demonstrated by the results of this exploratory study. The most popular way to provide service to mobile users in academic health sciences libraries is to provide information about mobile devices themselves, as well as the resources available in mobile format.

37

Analysis of Published Papers Supported by Cleveland Health Sciences Library Systematic Review Service Δ

Mike McGraw, AHIP, Reference and User Services Librarian, Cleveland Health Sciences Library, Case Western Reserve University, Cleveland, OH
Objectives: To demonstrate that the Cleveland Health Sciences Library (CHSL) Systematic Review Service has an impact on the published research projects written by Case Western Reserve University researchers who used the service, and that it is valued highly enough for many of them to acknowledge CHSL in the full text of the published articles resulting from the research.
Methods: Before beginning the literature review, I will summarize the methods and approaches that I use in my systematic reviews. I will then obtain full text of articles based on projects with which I assisted with systematic review services. I will analyze the full text of these articles for (1) evidence that the approaches I use are evident in the published article and (2) that CHSL or its staff are acknowledged as helpful within the article full text.
Results: Representative of the published articles supported by the CHSL systematic review service are one master's thesis that shows evidence of our influence but does not acknowledge our contribution and one article from a peer-reviewed medical journal that does acknowledge us.
Conclusions: We have never made an active effort to ask for acknowledgement, and the medical journal article that included a mention was the result of a very thoughtful author who went out of her way to do so. If we want to prioritize efforts to always be acknowledged, we may have to be more aggressive in asking for this consideration.

41

Assessing the Genomic Medicine Information Needs and Interest of Community Physicians and Developing a Focused Online Portal Δ

Judith Kammerer, AHIP, Medical Librarian, UCSF Fresno Edward and Ann Hildebrand Medical Library, University of California–San Francisco, Fresno, CA; **Kathryn Elliott,** Librarian Intern, San Diego Natural History Museum, San Diego, CA
Objectives: (1) A survey of local physicians will be conducted to discover their attitude toward genomic medicine, measure their confidence in having an adequate foundation and locating appropriate resources, and discover their preferences in methods of information delivery. (2) An online portal will be developed to meet the genomic medicine information needs of community physicians based on analysis of survey data.
Methods: An online survey utilizing SurveyMonkey was created based on the guidelines detailed in Arlene Fink's 2008 book, *How to Conduct Surveys: A Step-by-Step Guide.* This survey will be delivered via 3+ local physician email lists to 1,000+ physicians. The 9 key areas of inquiry include: (1) importance of genomic medicine to their practice, (2) anticipated impact in 5 years, (3) basic knowledge of genomic medicine, (4) awareness of available resources, (5) demographic information, (6) last time they used medical library services (by categories), (7) interest in self-managed online learning, (8) preferences for type of content to include and format of delivery, and (9) comments. Questions were structured into multiple choice, rating scales, checklists, and comments. SPSS, a data analysis computer program, will be

utilized to compile meaningful statistics from survey data. An online portal will be developed using WordPress, structured with input from area #8.

45

Beyond the Library Doors: Consumer Health Outreach in Community-Based Organizations

Lydia N. Collins, Consumer Health Coordinator, National Network of Libraries of Medicine, Middle Atlantic Region, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

Objectives: Community-based organizations (CBOs) provide health outreach and health literacy training for community members. Many community agencies are not aware of the various resources that are freely available to them via the National Library of Medicine (NLM) and other trusted health information sources. This poster describes health literacy outreach efforts of local community agencies and their work with NLM.

Methods: Many CBOs have as their mission the promotion of healthy lifestyles in their communities. However, they lack the knowledge of readily available resources to support their missions and programmatic goals. The National Network of Libraries of Medicine (NN/LM), Middle Atlantic Region (MAR), is working with CBOs to provide training on the variety of freely available resources from NLM and other reputable sources. The needs of the organizations vary; however, there are similarities that exist in regard to training needs, access to health information, and communication mechanisms to advertise resources and services. The goal of NN/LM like CBOs is to strengthen health literacy skills as well as address the gaps in health in the community they serve. Persons served via CBOs include caregivers, seniors, veterans and military families, K-12 educators, and faith-based organizations.

Results: Outreach efforts by coordinators at NN/LM MAR, as well as subcontractors throughout the region have been able to improve awareness of NLM resources in the community. Ongoing outreach has helped to increase NN/LM MAR membership and training on NLM resources for community- and faith-based organizations in the region. Outreach includes exhibits at local churches and health fairs at libraries as well as training sessions for employees of community-based organizations on relevant NLM resources.

Conclusions: Health outreach in communities is most successful when vetted by organizations where community members already seek information. Additionally, those who work in community agencies are open to partnering with libraries in order to provide access to resources beyond the initial training sessions.

49

Branding the Archives: Reimaging Our Online Presence

Catherine Larson, Web Services Librarian; **Su-Shan Chin,** Archivist; **Glenda S. Barahona,** Reference Archivist, Ehrman Medical Archives; NYU Health Sciences Libraries, New York University–New York

Objectives: Present a case study on redesign of medical archives website to rebrand the archives, increase access to historical resources by core patrons, and implement forms and templates to decrease redundant processes. Redesigning the website on a new platform also allows responsive design so users of the website may research and locate data using mobile devices or desktop computers.

Methods: Compare library and archival websites to determine elements that work or do not work in improving search and access for researchers. Review other websites to rate success in responsive design. Review mission and services of archives to develop new brand. Identify and highlight resources in current website for core audience and patrons of the website. Develop researcher profiles and document workflows for common types of requests. Streamline various archival services via a single research request form.

Results: Rebranding the archives with a new logo and color scheme gives the archives a stronger presence within the institution. The redesigned archives website supports increased access to historical materials by core patrons and archives staff. Results will be illustrated by images of the old website and the redesigned website.

Conclusions: Natural disasters and server migration worked in tandem to slow the progress, but the redesign and reformulating of forms has continued on the sidelines and, if anything, highlighted the need for an updated online presence.

53

Building Partnerships through Institutional Repository Development: A Veterinary Case Study

Susanne K. Whitaker, AHIP, Public Services Librarian, Flower-Sprecher Veterinary Library, Cornell University, Ithaca, NY

Objectives: As libraries move from shelves of printed materials to electronic-based resources, institutional repositories become important platforms for building digital collections. This case study provides an example of how systematically creating digital collections of publications by and about a college provides expanded opportunities for utilizing a librarian's skills and strengthening outreach relationships with departments, faculty, and research endeavors.

Methods: This case study describes outcomes resulting from assembling complete sets of college of veterinary medicine public documents identified by a publications audit for scanning and uploading into the university's institutional repository. In coordinating this effort, positive relationships were established with numerous college and university departments and technical units. Issues related to copyright, financing, metadata, and ongoing maintenance are addressed.

Results: To date, more than twenty-five collections of college of veterinary medicine publications have been established in the university library's eCommons digital repository at ecommons.library.cornell.edu/vet.html. Included are: announcements from 1896; institute, research center, and leadership program annual reports; public and alumni newsletters; student case reports, handbooks, and yearbooks; faculty memorial statements and publications; conference proceedings; and various other historical materials. Additional collections are in various stages of preparation and maintenance is ongoing. The process involves coordinating technical and scanning support from digital scholarship and preservation services, as well as cooperation from departmental staff and faculty. Technical knowledge, patience, and persistence plus organizational and communication skills are required. Feedback from departments and the college community continues to be positive.

Conclusions: Building institutional repositories enable librarians: (a) to leverage their valuable print-based skills in coordinating the many aspects needed to assemble digital repository collections; (b) develop enhanced working relationships with departments, faculty, and technical staff; and (c) provide a unique service to the institution for 24/7 access and archival preservation to its gray literature publications in a specialized subject field. This experience encourages other librarians to undertake similar projects at their institutions.

57

Collaborating with Faculty to Support Information Literacy for Physician Assistants: Using Curriculum Maps and Student Learning Outcomes Δ

Elisa Cortez, Chair, Access Services, and Liaison Librarian, University Libraries, Loma Linda University, Loma Linda, CA

Objectives: To develop and refine the information literacy skills taught to students in the physician assistant (PA) program. Setting: Academic health sciences library.

Methods: Librarian is a guest lecturer for a 1.5-hour class in a research course for physician assistant students. The course is taught once each year. Information resources, literature searching, and a brief introduction to evidence-based practice concepts are covered in the lecture. This poster will illustrate an example of instruction within the PA program, identify guidelines and assignments designed to teach physician assistant students information literacy skills, and move to more advanced concepts of evidence-based practice. After review, information obtained will be used to refine the curriculum.

Results: The result was a better understanding of how to collaborate with the instructor within the context of the course.

Conclusions: Students were aware of "embedded librarians" from their previous schools and were receptive to library faculty instruction. As a result, I will be collecting practical, case-based PA examples for next year.

61

Computerized Physician Order Entry (CPOE) in an Urban Academic Medical System: Librarian Support of CPOE Implementation Δ

Susan J. Barnes, Assistant Director, National Network of Libraries of Medicine Outreach Evaluation Resource Center; **Patricia J. Devine,** Network Outreach Coordinator, National Network of Libraries of Medicine, Pacific Northwest Region; **Sherry Dodson,** Clinical Librarian; **Ann Whitney Gleason,** Head, Systems; **Mahria Lebow,** Regional Technology Coordinator, National Network of Libraries of Medicine, Pacific Northwest Region; **Leilani A. St. Anna, AHIP,** Information Management Librarian; Health Sciences Library, University of Washington–Seattle

Objectives: Explore and understand the information-seeking behaviors and workflow of a wide range of clinical providers, through direct observation during librarian participation in on-the-floor computerized provider order entry (CPOE) implementation support. This effort will lead to a better understanding of barriers to health information resources at the point of care and explore opportunities for collaboration to improve health information delivery. CPOE is being implemented in two hospitals within an urban academic medical system during 2012; the on-site support team includes medical librarians.

Methods: This is a qualitative observational study. Librarians received in person and distance training on the hospitals' CPOE system and were provided floor assignments and shifts at the two hospitals to support the CPOE deployment. The embedded librarians will describe their CPOE support experiences and observations based on working with providers on the floor and in the nurses' stations of the hospitals.

Results: We observed firsthand the incredibly frenetic pace of hospital practice. In assisting with CPOE specifically, we were able to observe providers interacting with the electronic health record system (EHR) both for charting and order entry. Our key observation is that hospital providers, under extreme time pressure, are tied to the HER, and in order to effectively deliver information resources, these resources must be incorporated into the established workflow and EHR system in order to be utilized and meet the needs of the users.

Conclusions: Our findings are useful to librarians involved in advocacy and decision making about information resources to be included in the EHR. After our experience, we find our understanding of clinicians' experience with EHRs enhanced and as such will be better able to offer resources tailored to meet clinical needs. Our results have the potential to inform directions for future roles for medical librarian in a variety of settings, such as resource evaluation, interface design, information organization and navigation, and other areas that would benefit from librarians' direct experience with EHR implementation and networking with information technology managers.

65

Contributing to History: Our Role in the Work of the Presidential Commission for the Study of Bioethical Issues

Alicia A. Livinski, Informationist and Biomedical Librarian; **Nancy Lee Terry,** Informationist; NIH Library, National Institutes of Health, Bethesda, MD

Objectives: In late 2010, the Presidential Commission for the Study of Bioethical Issues was charged by President Obama to investigate US Public Health Service (USPHS) sexually transmitted disease research conducted in Guatemala from 1946–1948 and conduct a review of current research studies involving human subjects. Commission staff requested library assistance to conduct searches of the scientific and gray literature on the role of human subjects in historical and contemporary settings.

Methods: A librarian was assigned to each of the commission's reports to provide searching assistance and serve as a document delivery liaison. Searches needed to be systematic and well documented to ensure transparency. A wide variety of literature and journals were reviewed from across the biomedical, social sciences, public health, and ethics fields. Search strategies were collected and stored in a Word document, and EndNote was used to collect, manage, and organize the selected search results. Results were tagged based on the specific questions asked for easy retrieval and identification of overlapping articles. Follow-up searches were also conducted near the end of the project period to ensure any new publications were also captured and reviewed.

Results: The results of the literature searches were used by the commission staff and members to write a comprehensive review of human subjects research in the United States and internationally, and report of the USPHS research conducted in Guatemala. *Ethically Impossible: STD Research in Guatemala 1946 to 1948* was released in September 2011 and discussed the importance of ethical standards when conducting research. In December 2011, the report *Moral Science: Protecting Participants in Human Subjects Research* was released. Reports, online tools, and bibliographies of key research articles, research documents and records, and a study guide were later developed by the commission staff and members.

Conclusions: While the work librarians complete for their customers may seem to go into the "black box" and never be seen again, this was a rewarding experience for the librarians involved in these historic projects. The assistance provided by Nancy Terry and others at the NIH Library in obtaining difficult to locate key documents were directly acknowledged in the *Ethically Impossible* report, thereby demonstrating the impact and value of the services provided by the librarians and library.

69

Could Changing How You Track Statistics Increase Compliance and Efficiency? Using Google Docs for Library Metrics

Tara Brigham, Librarian, Winn-Dixie Foundation Medical Library, Mayo Clinic, Jacksonville, FL

Objectives: To demonstrate how Google Docs can be an easy, efficient, and free method to keep track of library interactions and synthesize the results.

Methods: Tracking library statistics is an important administrative task. Benefactors want to know how the library is being used; leadership needs to know for strategic purposes. Until 2012, library staff at a small academic medical library tracked their interactions using hash marks on paper and then input those numbers into a Microsoft Excel document. In 2012, the librarian created an online form in Google Docs, allowing library staff to select the type of assistance from a list of thirteen available (e.g., general information question, research request) and the kind of interaction (e.g., telephone, email, or in-person). To ensure compliance, the staff bookmarked the permalink to quickly access the online form.

Results: There was a noticeably positive change with using Google Docs for statistics. Although a number of choices were added to the Google Docs statistics form, one of the categories was kept the same to reflect if there was any change from the original statistics form versus the online form. There was an increase (32%) in the amount of responses recorded with the same number of visitors staying the same (approximately 6,500). From January 2011–December 2011, there was a total 168 responses recorded, but from January 2012–December 2012, a total of 248 responses were recorded. Both library staff members agreed that it was much easier to remember to record their interactions with patrons with the Google Docs online statistics form.

Conclusions: Library staff interested in improving how they track patron interactions should consider using an online statistics form created in Google Docs.

73

Creating and Managing a Systematic Review Service

Susan A. Fowler, Medical Librarian, Becker Medical Library; **Lauren H. Yaeger,** Medical Librarian; Medical Library, St. Louis Children; **Betsy Kelly,** Associate Director, Health Information Resources and Assessment, and Evaluation Coordinator, National Network of Libraries of Medicine, MidContinental Region, Becker Medical Library; School of Medicine, Washington University in St. Louis, St. Louis, MO

Objectives: Systematic reviews require the particular knowledge and skill set of information professionals, with most guidelines recommending that researchers include an information professional from the beginning. In recognition of the growing need for support of systematic reviews at our institution, we created a service based on the skills of our existing information professional team and available resources.

Methods: Librarians researched guidelines for systematic reviews and took part in formal training. The role of librarians, including authorship, was clearly defined from the beginning. We also evaluated the average time required to complete the information retrieval—including interviews with the investigators, developing search strategies and hedges, and running the searches—to derive establish realistic time expectations and workloads. Due to the popular nature of systematic reviews, we also needed a way to tactfully distinguish for patrons if a systematic review was really what they were interested in and to justify a comprehensive literature. The result is a LibGuide that outlines our role, presents authorship requirements up front, helps distinguish the difference between systematic and other types of reviews, and offers resources to support learning about and conducting systematic reviews.

76

Discovery within a Library: Creating Experiences that Welcome and Invite a Health Sciences Community

Joan Marcotte Gregory, AHIP, Associate Director, Information Resources and Facilities; **Christy Jarvis, AHIP,** Information Resources Librarian; **Jeanne Marie LeBer, AHIP,** Associate Director, Education and Research; **Nancy T. Lombardo, AHIP,** Associate Director, Information Technology; **Jean P. Shipman, AHIP, FMLA,** Director; **Joan M. Stoddart, AHIP,** Deputy Director; Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

Objectives: Through a recent renovation of the Spencer S. Eccles Health Sciences Library, a perfect opportunity arose to develop an engaging experiential learning environment where users could rediscover the library as a place to gather, learn, innovate, interact, and collaborate.

Methods: Creative ways of reconnecting faculty, staff, students, administrators, and donors are being employed to maximize use of new open space resulting from a recent renovation. These include an experiential environment showcasing discoveries and research outcomes of the health sciences community. Users are invited to interact with displays and with each other in library spaces. Techniques include: (1) new furnishings that invite collaboration and group interactions; (2) honoring local discoveries through recognition plaques on the library walkway; (3) housing diverse groups involved with innovation, creative solution exploration, and interprofessional education; (4) having book signings and meet-the-author receptions for local authors; (5) opening a library gallery featuring artwork created by health sciences personnel; and (6) hosting national traveling exhibits.

Results: The library renovation literally created new pathways as two entrances are now available offering easier access and a passageway through the library that has increased traffic and awareness. Storing the library's print collection on compact shelving has opened space for the Center for Clinical and Translational Science and the Center for Medical Innovation. A new electronic display panel and SMARTBoard highlight health sciences innovations and discoveries. A gallery showcasing the art of health sciences personnel is attracting more people to the library. The library has successfully hosted a book signing and reception as well as the National Library of Medicine (NLM) "Changing the Face of Medicine" exhibit, presenting opportunities to work with other University of Utah units on exhibit-related programming. New opportunities keep arising. The library was chosen as one of three host locations for treadmill desks acquired through a school of medicine grant. Invitations to display art, host exhibits, highlight discoveries and innovations, and engage as partners in new and exciting collaborations are being received.

Conclusions: In this interactive, well-lit, inviting, and spacious environment, people are rediscovering the library as a place for community engagement, for sharing their ideas with one another, and for focusing their creative energies on imagining new discoveries and innovations. The library has truly become an incubator for collaborations and new partnerships. Having the evidence nearby that supports this new knowledge has been instrumental in transforming the library's role within the health sciences.

77

Developing Suitable Text Structures for Health Information: Cohesion or a More Radical Change? Δ

Yukiko Sakai, AHIP, Associate Professor, School of Library and Information Science, Keio University, Kawaguchi, Saitama, Japan

Objectives: Optimizing text readability is important to resolve health literacy issues. This study identified how text structure can be improved in terms of readability and comprehension of health information texts.

Methods: Two different Japanese health information texts on chronic suppurative otitis media were developed based on an original text written by a medical doctor for laypersons. First, this text was modified to simplify syntax and adapt a common vocabulary. Second, one text was modified to increase cohesion by adding terms and repeating nouns; another was modified by rearranging paragraphs and sentences to place "important information first." One hundred and twelve high school students were assigned one of the three texts, including the original text, took two kinds of comprehension tests, and, through a web survey, evaluated the readability and comprehension using a multiple-choice question on the obstacles. Other than syntax and vocabulary (factors that were already evaluated in another study), two ways of improving text structure were compared and examined. The linguistic features of Japanese texts were also examined.

Results: In contrast with the comprehension test scores in the original text, the scores were significantly higher for the true or false and cloze tests in the cohesive text; the scores only for the cloze test were significantly higher in the "important information first" text. Readability and comprehension was better in the cohesive text, according to the evaluation of the multiple-choice question.

Conclusions: Cohesive texts are a better choice than "important information first" texts for improving the text structure of health information in terms of readability and comprehension. Further research should determine specific text structures that are suitable for health professionals and consumers in terms of the sequence of information.

81

Development of an International Ophthalmology Clearinghouse

Gale A. Oren, AHIP, Librarian, Kellogg Eye Center; **Gurpreet Rana,** Global Health Coordinator, Taubman Health Sciences Library; University of Michigan–Ann Arbor

Objectives: The University of Michigan Department of Ophthalmology and Visual Science is involved in the early stages of setting up a centralized clearinghouse for international collaborations and outreach in ophthalmology. The initial goal is to coordinate ongoing efforts in training, teaching, interchange, research, and surgical missions abroad. The secondary goal is to develop new programs.

Methods: This poster will chronicle the development and implementation of this program, with emphasis on librarian roles and participation.

85

Diplomats and Ambassadors: Librarians as Hosts and Facilitators on Campus and Beyond

Beth Auten, AHIP, Reference and Liaison Librarian; **Linda C. Butson, AHIP,** Consumer Health and Community Outreach Librarian; **Rae Jesano, AHIP,** Assistant University Librarian; **Hannah F. Norton, AHIP,** Reference and Liaison Librarian, Biomedical and Health Information Services; Health Science Center Libraries; **Michele Tennant, AHIP,** Assistant Director, Biomedical and Health Information Services, and Bioinformatics Librarian, Health Science Center Libraries and UF Genetics Institute; University of Florida–Gainesville

Objectives: Reference and liaison librarians at our library are filling new roles planning exhibits and event series, organizing focus groups to gather user input on changes to library space and services, and partnering on initiatives with other departments on campus. These efforts are changing perceptions of our role on campus and beyond, positively impacting our relationship with our primary user base.

Methods: Established relationships with library users and departments have been developed through a long-standing liaison librarian program, and are essential in developing partnerships and collaborations. Liaisons integrated into coursework have brought students and faculty into the library through student poster presentations, while librarians on academic unit committees and library administration have made meeting rooms and other space available for users. The library has become more client-focused, taking a more active role in outreach to academic and clinical units and involving library users in the decision-making process. There has been increased emphasis on seeking grant funding and leading interdisciplinary grant teams, as well as harnessing national resources, such as National Library of Medicine (NLM) exhibits. Through word of mouth, people throughout campus have learned what we have done and contacted us for similar collaborations. A stratified and formalized marketing plan was created to reach audiences from health center to main campus to community.

Results: Opportunities arise through librarian initiative or client invitation. Many times an opportunity is worth trying rather than rejecting immediately because it is unconventional, challenging, or not a traditional library or informatics task. Some examples include hosting student poster sessions, involving clients in space planning focus groups, planning event series based around NLM traveling exhibits, organizing lectures and conferences, coordinating or teaching training sessions beyond the scope of traditional library instruction, and partnering with other libraries and student groups to host recreational activities (including student-run humans vs. zombies games.) We have found ourselves in the roles of facilitator and consensus builder, event planner, host, tour guide, matchmaker (between individuals or departments with a shared goal), and translator.

Conclusions: Through these efforts, our payoffs have included collaboration on projects, incorporation into and leadership on grants, fundraising, visibility, and changed perceptions among our users. Using these methods, librarians can build productive, collaborative relationships with other units on campus and can become active participants in the educational and cultural life of their institution.

88

Disaster Health Information Outreach and Collaboration Projects Δ

Cynthia B. Love, Technical Information Specialist, Disaster Information Management Research Center, National Library of Medicine, Bethesda, MD

Objectives: Do collaborations between libraries and disaster organizations improve use of disaster medicine and public health information and result in closer working relationships among agencies? What can be learned from a meta-analysis of several

projects' needs assessments, surveys, experiences, and project activities?
Methods: Disaster health information outreach projects will be funded to experiment with partnerships between a library and an organization that has disaster-related responsibilities. Seven projects each year, 2012–2013, will design programs for improving disaster medicine information access for health professionals, first responders, and others involved in health-related disaster preparedness, response, and recovery. Partnerships are across the United States and in rural, urban, and suburban settings. They include public, university, and hospital libraries along with health departments, professional associations, university disaster and emergency research centers, and hospital alliances. Each project has a different approach to the exchange of disaster health information and training. This evaluation will compare projects' activities and outcomes and highlight successes and challenges to forming mutually beneficial collaborations. The evaluation will also aggregate each projects' surveys, focus groups, and needs assessments to identify patterns based on all fourteen projects.

89

DR MERL: Dependable Reviews of Medical Education Research Literature Δ

Kerry O'Rourke, AHIP, Campus Library Director, Robert Wood Johnson Library of the Health Sciences; **Laura Willett,** Clinical Associate Professor; **Kim Sarang,** Clinical Associate Professor; Robert Wood Johnson Medical School; **James Galt,** Instructional Design Specialist; **Robert Cupryk,** Information and Education Librarian; Robert Wood Johnson Library of the Health Sciences; University of Medicine and Dentistry New Jersey–New Brunswick
Objectives: To keep clinicians, researchers, and medical educators who teach approximately 140 medical students per year apprised of current trends in medical education research. Background: The medical literature is the predominant method health professionals use to stay current about research and trends in their primary discipline. Many literature review services allow clinicians to stay current with latest development in their field via email alerts or newsletters. In medical education, such review services are lacking. The most common methods for keeping up with advances in medical education include discussion with colleagues and participation in academic meetings or school committees. To meet the need of our teaching faculty, an in-house medical education literature review service was developed with monthly reviews written by our own clinicians and educators.
Methods: Dependable Reviews of Medical Education Research Literature (DR MERL) launched in April 2012 with two clinicians regularly reviewing new publications in three leading medical education journals. Articles are selected based on reviewer interest and their relevance to the medical school curriculum. Dissemination of information is provided in numerous formats including posters, flyers, emails, website, and Twitter. Each month, DR MERL posters are refreshed with new medical education topics. A QR code on the poster directs readers to a website that includes links to full-text articles. Handouts with reviews are available at poster sites.
Reflective Critique: Incorporating numerous formats of distribution and placing the poster in a high-traffic area increased awareness of the service. The poster and the monthly email message announcing new reviews was redesigned to include large, colorful icons that encapsulate in one word the article's essence. Immediately after launching the new design, positive feedback was received as well as requests for expanded distribution. Moving forward, we plan to expand journal coverage and recruit more faculty reviewers.

93

Education of the Future: Enriching Course Design in Support of One Health

Barbara Hamel, Collections and Information Services Librarian; **Barbara Benisch Sisolak, AHIP,** Library Instruction Coordinator; Steenbock Memorial Library, University of Wisconsin–Madison
Objectives: To partner with faculty in developing a course in which student-generated content forms the basis of an online resource that will serve as course materials for successive iterations of a special topics course in world food systems. A further objective is to design the course for scalability to larger courses.
Methods: Life sciences librarians, teaching faculty, and academic technologists collaborate to pilot a course in which a mix of graduate and undergraduate students research self-selected topics and use social networking to interact and create educational content. Students choose topics involving an issue related to world systems for producing, harvesting, processing, and storing food. They receive two weeks each of information literacy and web-design instruction and then spend several weeks researching and developing topical web pages outside of regular class time. Students are required to post their progress to blogs and review each other's work. Students present their work for a mid-term assessment by the librarian, instructor of record, and classmates. They then incorporate both peer and expert review in refining their work for final presentation as their major graded assignment. This project incorporates recent technological innovations to leverage student food systems research to ultimately improve animal human and environmental health.
Results: Librarians were involved in planning the course and throughout its implementation, including: syllabus planning, provision of information literacy instruction, preparation of a library resources learning object, response to student inquiries via blog, consultation by appointment, viewing of student presentations, and assessment of student final projects. Students presented final projects incorporating varying levels of mastery of web technology, visual presentation skills, writing, literature retrieval, citation formats, and copyright issues.
Conclusions: Student feedback analysis indicated a successful course overall but did not specifically address the impact of continual librarian presence throughout the course. It is unclear whether the embedded librarian model added significantly to the quality of student research. While the design of this course is scalable in the sense that non-subject specialist librarians could step in to teach it, multiple courses with this much librarian involvement would be difficult to work into an already heavy teaching schedule.

97

Emerging Technologies in Global Public Health Δ

Mellanye Lackey, Global Public Health Librarian, Health Sciences Library, University of North Carolina–Chapel Hill
Objectives: To teach a semester-long, for-credit course for a school of public health about how emerging technologies and social media are leveraged to improve global public health. A librarian teaches this course, which is unusual for the school. The active use of social media and emerging technologies in the association inform the librarian's teachings and contributions.
Methods: Evaluations from two semesters show students are satisfied or very satisfied with many aspects of the course. Class

participants are diverse: in-person and online, co-streaming; synchronous and asynchronous; residential and distance; traditional students; and public health practitioners. The course is taught using Elluminate and via the various social media tools used in class. The blended learning environment offers many challenges to traditional teaching methods, content delivery, audiovisual usage, and student support. Providing solid communication channels for all students and midcourse evaluations have proved invaluable to connect with students, make course corrections, and highlight needed improvements for the course. A third semester is planned for spring 2013.
Results: In a course project, students gain expertise in several emerging technologies and social media tools; build a professional, online presence for a public health organization or issue; and consider questions of privacy, policy, and sustainability. Community stakeholders offer input and feedback. Final presentations showcase broad spectrum of public health interests and create tech-savvy students who are more marketable to employers. Public health organizations benefit from an online community.
Conclusions: Health librarians can be well poised to meet the high demand for applications of social media and emerging technologies to solve real world public health challenges. Since many public health organizations want to increase their online presences, the potential for impact is high. Librarians can contribute unique and useful information to a public health curriculum.

101
Evaluating and Improving Library Instruction for Nursing
Heidi Meitz Schroeder, Health Sciences Librarian, Michigan State University Libraries, Michigan State University–East Lansing
Objectives: In an effort to provide more effective and meaningful nursing library instruction, the nursing librarian evaluated current instructional practices, looking for ways to change and improve her teaching skills and abilities. This poster describes the methods used to evaluate library instruction and what instructional changes were implemented as a result.
Methods: Over the course of two semesters, the nursing librarian selected several reoccurring undergraduate and graduate nursing library instruction sessions and orientations to evaluate. Several different methods were used to evaluate instruction, including gathering feedback from nursing students and faculty via polls, clickers, minute papers or other library assignments, and conversations. The nursing librarian also asked two information literacy librarians to observe and critique her nursing instruction sessions. Finally, she considered her personal reactions and reflections, usually noted shortly after teaching. All evaluation methods helped the nursing librarian identify instructional activities and teaching strategies for her to modify and strengthen. During the next two semesters, the nursing librarian implemented several of the instructional changes and improvements that had been identified during the initial evaluation.
Results: The nursing librarian implemented several strategies designed to improve instruction sessions. These included: more communication with nursing faculty members, timing library instruction closer to class assignment due dates, multiple instruction sessions, longer instruction sessions, clear goals/learning objectives for sessions, less lecturing and more hands-on activities, hands-on activities dispersed throughout sessions, more interesting and relevant examples and visual aids, and more input and participation from students during sessions. Specific examples of these improvements are detailed on the poster.
Conclusions: Although initiating a thorough critique of her library instruction was a challenging and humbling task, it was a very worthwhile experience for the nursing librarian. Changes made to nursing instructions sessions have been viewed very positively by all parties involved. In addition to feeling encouraged that she has been able to provide more effective and meaningful library instruction to students, the nursing librarian thinks instructional improvements have helped streamline the help she provides to nursing students. She has noticed a decrease in the number of individual questions from students in nursing courses where instructional improvements were made, particularly around the time assignments are due.

109
Facilitating the Development of an Evidence-Based Toolkit by Collaborators at Multiple Institutions: Tools and Approaches for Managing the Search, Review, and Writing Processes Δ
Elizabeth Fine Weinfurter, Associate Librarian, Liaison and Instruction, Bio-Medical Library, University of Minnesota–Minneapolis
Objectives: The work of health sciences researchers and practitioners is increasingly collaborative, and these collaborations often span institutions and geographic areas. This poster describes multiple technologies and approaches utilized by a health sciences librarian as a member of a multi-institution project team charged with creating an evidence-based toolkit related to personal health records.
Methods: This observational case study describes specific processes, technologies, and tools utilized to support the efficient and successful completion of a literature search, literature review, and writing project with five nurse researchers and practitioners from different institutions. The challenge of managing processes, documents, and information during the search, review, and writing processes are significant, and this poster offers a solution and a role for librarians on similar projects.

113
Focused Library Instruction in Occupational Therapy, Respiratory Care, and Physical Therapy Curricula
Katie A. Prentice, AHIP, Head, Education and Information Services; **Christine S. Gaspard,** Head, Access Services and Interlibrary Loan; Briscoe Library, University of Texas Health Science Center–San Antonio
Objectives: To demonstrate how an effective library instruction program is integrated into occupational therapy, respiratory care, and physical therapy curricula in an academic health sciences center.
Methods: Academic health sciences center libraries have a track record of instruction in medicine, nursing, and dentistry curricula. Many libraries have expanded instructional efforts to include other health professional programs. This poster will describe one library's integrated instruction program in evidence-based practice (EBP) and database searching skills for occupational therapy, physical therapy, and respiratory care students. These programs include bachelor of science, master of science, and doctoral-level students. The library instruction is coordinated throughout the students' entire course of study. While the primary instruction is in the classroom, materials are provided on Blackboard and from the library website.
Results: In each discipline, students demonstrated their understanding of EBP through an in-depth literature based assignment

that progressed throughout the semester. Respiratory care student assignments culminated in a poster presentation. Physical therapy and occupational therapy students wrote research papers and answered clinical questions to demonstrate their understanding of the EBP process. One faculty champion in occupational therapy presented a poster in 2012 on this ongoing partnership to share the success and strength of library collaboration with other allied health faculty.
Conclusions: From library orientation, use of EBP, database instruction, and faculty assigned activities, students gain well-rounded research knowledge and skills. The students also became more aware of the value of librarians in their research and writing process. These activities enable the librarians to become actively involved in the curricula, foster ongoing collaboration with faculty, and develop student relationships.

117
Frameworks for a Data Management Curriculum for Science, Health Sciences, and Engineering Students
Donna Kafel, Librarian and eScience Project Coordinator; **Mary Piorun, AHIP,** Associate Director; Lamar Soutter Library, Medical School, University of Massachusetts–Worcester; **Sia Najafi,** Director, Research Computing and Departmental Technology Support; **Tracey Leger-Hornby,** Dean, Library Services; Worcester Polytechnic Institute, Worcester, MA; **Elaine Russo Martin,** Director, Lamar Soutter Library and National Network of Libraries of Medicine, New England Region, Medical School, University of Massachusetts–Worcester
Objectives: This poster illustrates the "Frameworks for a Data Management" curriculum intended for undergraduate and graduate students studying science, health sciences, and engineering disciplines.
Methods: An education committee composed of librarians, faculty, a curriculum consultant, an evaluation consultant, and an instructional design consultant collaborated in the development of these frameworks. At the two partnering schools, consultants collected data from students regarding their current data management practices and interviewed faculty about their students' data management skills and learning needs. A literature review of current data management courses was conducted. From these resources, learning objectives were identified, a simplified data management plan was developed, and a lesson plans for seven course modules were created. The evaluation consultant and an education committee librarian interviewed faculty to develop real-life research case scenarios that illustrate data management practices in the lab and clinical settings.
Results: The curriculum frameworks are mapped to the data management plan requirements of the National Science Foundation and include lesson plans for seven instructional modules, a simplified data management plan, course readings, research cases in medicine, biomedical lab research, clinical behavioral health, and aerospace engineering. The education committee fully developed course content including readings, activities, research case excerpts, and assessment questions and answers for the fifth module, "Legal and Ethical Considerations for Research Data," as proof of concept.
Conclusions: Faculty and librarians have responded that the curriculum frameworks, when fully developed, will be a useful tool for providing data management instruction to undergraduate and graduate students enrolled in diverse science, health sciences, and engineering courses. The modular format of the curriculum and variety of research cases is flexible, allowing faculty to select modules that are relevant to their course programs. When completed, the curriculum can be delivered in multiple ways: face-to-face, as online interactive modules, or hybrid. Implementation funding for full development of the course modules, additional research cases, and piloting the curriculum modules is proposed.

121
Genetics through the Ages: An Academic Health System's Global Impact Δ
Irina Zeylikovich, University Library Associate; **Erin Kerby,** Special Projects Assistant; **Merle Rosenzweig,** Librarian, Liaison and Research; Taubman Health Sciences Library, University of Michigan–Ann Arbor
Objectives: To place the accomplishments and impacts of one of the nation's first departments of human genetics into historical and medical context within the framework of the burgeoning genetics field of the past sixty years.
Methods: The discovery and subsequent mapping of the human genome has led to unparalleled advances in medical education, treatment, and prevention in the past half-century. Through the lens of the department of human genetics in a large academic health system, this poster examines the trajectory of genetics research and teaching. Tracing the path from an original emphasis on human heredity up through the genomic and post-genomic eras, this poster highlights the impacts of the department's varied research areas and keystone collaborations on the field of genetics. Methods and sources utilized include searching local archives with materials spanning from 1937 to 1977 for materials relevant to the genesis of the department, as well as large national collections at multiple institutions to place the department in the broader context of the field.

125
Going Green: One Library's Journey toward Sustainability
Richard A. Peterson, AHIP, Deputy Director; **Megan von Isenburg, AHIP,** Associate Director, Research and Education Services; **Barbara Dietsch,** Acquisitions and Cataloging Manager; **Dawne Lucas, AHIP,** Head, Technical Services; Medical Center Library & Archives, Duke University, Durham, NC
Objectives: To increase sustainable practices at the library as a way of contributing to the university's institutional goal of becoming carbon neutral by 2024. This poster will share not only the process for implementing sustainability initiatives, but will also detail some practices that other libraries can achieve.
Methods: The university created a Climate Action Plan shortly after joining the American College and University Presidents Climate Commitment. To learn how the library could participate, two librarians attended the university's environmental sustainability workshop. Attendees were encouraged to pursue Green Workplace Certification by implementing forty of fifty-seven possible sustainability actions in their department. The library formed a workgroup to review the list of actions and identify what is currently being done and what we could achieve in the future. Additional library-specific items were added to the list. The workgroup's findings and recommendations for exceeding the minimum number of forty actions were reviewed with the staff. The project was successfully implemented, and an application was submitted for Green Workplace Certification.
Results and Conclusions: Workplace Certification was awarded in November 2012. Creating an awareness of the importance of this project and achieving staff buy-in were critical to our success.

129

HealthCampNYC: Using Collective Knowledge to Improve Health Literacy and Community Health through Unconferences

Lisa Chow, Associate, People Interact Consultancy, Brooklyn, NY

Objectives: HealthCampNYC was a regional unconference that brought together over eighty-five educators, librarians, literacy professionals, public health and medical professionals, and people interested in sharing their work, skills, and knowledge about health literacy and community health. The content of the unconference is determined and managed by the attendees. HealthCampNYC offered a collaborative environment with unique opportunities for learning, sharing, and relationship-building.

Methods: While HealthCampNYC was a regional event, there is worldwide interest. An event resource wiki site was setup, and web statistics showed that people from over 200 cities visited the site. Non-US cities included Madrid, Abuja, Kashiwa, Auckland, Christchurch, Vancouver, Calgary, Prince Albert, Mount Pearl, Halifax, and Castries. We had individuals ask if there was a way to participate remotely. Attendees were asked when registering for the event to list topics of interest. Over 100 topics were suggested. The event facilitators then narrowed down the list to 28 topics by combining related topics. The list was further narrowed down to 21 topics when attendees voted during the opening session. More information is in the summary report (bit.ly/healthcampnyc-summary-report).

Results: Evaluations were given to attendees. This is what attendees had to say about the event: "Opportunity to meet and learn from professionals in a variety of fields and organizations." "Great impact on the overall health conversation." "We have formed two new partnerships as a result and were able to brainstorm more ideas for fundraising and securing support for worthy projects." "I edit an online publication, and am developing an article on cross-cultural barriers to mental health treatment, an idea I got at HealthCamp."

Conclusions: The idea of HealthCampNYC came about from the fact that many professionals in different fields are involved with community health and health literacy, but they do not get a chance to share their resources and best practices since most conferences and events are industry specific. HealthCampNYC provided a forum and environment to do that.

133

HIV/AIDS Weeding Project in an Academic Research Library Δ

Sharon Leslie, AHIP, Public Health and Health Sciences Librarian; **Ida T. Martinez,** Psychology Librarian; Georgia State University Library, Georgia State University–Atlanta

Objectives: Over the past thirty years, knowledge about the etiology and treatment of HIV/AIDS has seen significant scientific advances. Academic libraries must keep their HIV/AIDS clinical collections current and consider how disciplines such as history, sociology, and education relate to this topic. It is essential that academic librarians find an optimal balance between the retention and deaccession of HIV/AIDS materials.

Methods: A weeding project with process notation will be undertaken to assess and update the collection. Content of circulating HIV/AIDS monographs in the clinical collections will be evaluated against the following criteria: outdated information; inaccurate or false information; materials that contain biased, racist, or sexist terminology or views; and materials that have zero or low circulation over the past ten years. A timeline tool model developed by Ondrusek (2001) will guide decision making. Alternative access to materials identified for deaccession will also be explored (i.e., availability through interlibrary loan). Titles will be compared against the Brandon/Hill lists, and newer editions purchased when possible. Upon completion of the project, a paper detailing the methodologies will be produced to inform librarians in similar situations and to assist with future decisions, processes, and best-practices in weeding HIV/AIDS monograph collections.

Results: A total of 657 HIV/AIDS monographs from call number ranges R (Medicine), RA (Public Aspects of Medicine), and RC (Internal Medicine) were considered in the weeding process. Based on criteria culled from the literature on weeding best practices, and specifically for HIV/AIDS collections, we withdrew 225 items, or 34% of the subcollection. Nearly all (215) were withdrawn because the information in them was outdated and they had been adequately superseded by more recently published clinical materials. More than half of those items (121) concomitantly met other criteria for deaccession: inaccurate information and zero or low circulation. We noted 51 titles with content important to the clinical study of HIV/AIDS but had to be weeded based on the criteria. A small number of items were weeded because they contained outmoded terminology.

Conclusions: This summative evaluation revealed that many of our clinical HIV/AIDS titles were woefully dated, and it is likely that we will need to assess other subject areas (education, psychology, sociology, law, history, etc.) to look for additional HIV/AIDS monographs that meet the criteria for weeding. The topic of HIV/AIDS has become so medically mainstreamed that it is hard to find clinical materials on specific populations. A timeline approach to weeding the collection is extremely helpful in establishing criteria that covers clinical, as well as historical, perspectives. However, we have found that it has been difficult to identify updated editions or newer works conducive to their replacement.

137

How Is the Clinical Practice Guidelines Database Used in Japan? Δ

Satoko Sayama, Librarian; **Tomomi Iwata,** Librarian, Information Management; **Yutaka Ootani,** Librarian; Medical Media Center, Toho University, Tokyo, Japan

Objectives: Clinical practice guidelines (CPGs) have been published in various media, and the accessibility is the issue to be resolved. We built a domestic CPG database open to the public and have maintained support to smooth access to each CPG. Our aim is to investigate the CPGs' accessing behavior through the database and discuss the role of librarians in CPG information services.

Methods: Since 2001, we have been gathering information about CPGs from new books, publishers' information, and news articles in medical journals to be published as books, research reports, articles, or websites, etc. The gathered CPG publication information has been stored daily in our original database on the web. A web-based questionnaire survey has been implemented in 2012–2013 to figure out how Japanese people and health care professionals access each CPG through our CPG database. The questionnaire consists of questions about the purpose of using CPGs, referred CPG information from the database, and demographic data.

Results: Health care professionals are the majority of the users of our domestic CPG database maintained in Medical Media Center in Toho University in Japan. The professions and job types of

users, and the purposes of access are various. Most of them can access to the CPG documents regardless of the media (books, journal articles, websites) through searching the database.
Conclusions: There are many ways of how to access to the CPG documents—such as browsing in libraries, downloading PDF files, or buying books—and it takes time to find where the document is. This survey indicates that the CPG database have been working as a portal site for the Japanese people looking for CPGs, informing them of the published media, and how to find it. It might be a useful tool not only for health care professionals, but also for lay people, promoting access to CPGs in Japan.

141

If You Trial It, They Will...

Stephen Maher, Collection Development Librarian; **Fritz Dement,** Assistant Curator, Assistant Director, Clinical and Branch Services, Head, Hospital Library Services, and Assistant Director, Access Services; **Dorice Vieira,** Clinical Librarian; **Karen Yacobucci,** Content Management Librarian; NYU Health Sciences Libraries, New York University–New York

Objectives: As library budgets face scrutiny from institution leadership, collection development librarians must justify their decisions to license resources. Trialing resources give libraries an opportunity to base their decisions on usage and user feedback without making a financial commitment. This poster demonstrates one library's workflow for partnering with vendors to trial resources and engage its users in the decision-making process.
Methods: The library developed a workflow for trialing new resources to its community of users. The workflow begins with collaboration between the library and its vendor partners, followed by outreach to the community of users inviting them to trial the new resource and subsequently give their feedback via survey. This poster will present the library's workflow for trialing new resources. It will also include sample marketing materials and surveys intended to engage patrons in the evaluation process.
Results: By implementing a workflow for trialing new resources the library was able to engage its users in the collection management and development process. Through the trial users learn about new resources. Through the survey, set to coincide with the end of the trial, users learn about similar resources which the library already owns or licenses. At times, enthusiastic users would contact the librarians directly about the trialed resource and expound on the merits for or against it. More common, however, was we received only a few responses from users—even after targeting specific groups according to discipline. In addition to the survey results, the library reviewed usage statistics provided by the vendor to determine whether to continue access to the resource once the trial is complete. Usage statistics of a trialed resource however is not necessarily a strong indicator of long-term usage.
Conclusions: Having a workflow in place for offering trials to new resources allows libraries to better partner with vendors. Over the duration of the trial, it is important to identify which users will most benefit from trialing the resource and communicate with them directly. This takes time, so it is important to set these expectations with the vendor. Offering trials are a way to engage users in the services and resources available to from the library.

145

Impact of Embedded Librarianship on Online Journal Clubs

Emily B. Kean, Electronic Resources Librarian, James N. Gamble Library, The Christ Hospital Health Network, Cincinnati, OH

Objectives: To determine the impact of embedded librarianship and librarian participation in numerous online journal clubs (OJCs) throughout nursing units in the hospital using statistical data analysis and survey of nurse participants.
Methods: Data obtained from the librarian's involvement in the nursing OJCs over the course of one year was analyzed to answer the following questions: (1) Did the discussions necessitate librarian involvement? (2) If additional literature searches were conducted, were the results viewed by nurse OJC members? In addition, nurse OJC members were surveyed to determine the impact of librarian involvement using the following questions: (1) Do nurse OJC members value the participation of the librarian in the OJC? (2) Does the involvement of the librarian in the nurses' OJCs increase the individual's: (a) awareness of library resources, (b) actual use of library resources, or (c) likelihood of requesting assistance from the librarian?
Results: Data analysis showed that 14 (19.2%) of the 73 OJC posts made from January 2012 to December 2012 necessitated librarian involvement. Categories of librarian involvement included: opportunities for additional literature searches (n=6); promoting library subscription resources (n=3); sharing other resources (e.g., NLM/NIH) (n=3); OJC tech support (n=2); sharing technology expertise pertinent to the article (n=1); and general reply (n=1). Of the 6 requests for additional literature searches, 2 (33.3%) yielded comment responses from participants. Analysis of the website statistics showed these 2 searches had 7 and 5 outward bound "click stats," indicating the search results were accessed by nurse OJC members. Of the 183 nurse OJC members invited to participate in the survey, 54 completed the survey yielding a response rate of 29.5%. Survey results indicated 41.8% (n=23) of nurse OJC members strongly agreed that the librarian's contributions added value to the nurses' discussion and 43.4% (n=23) strongly agreed the librarian's participation raised awareness of library resources. Moreover, 34.8% (n=16) strongly agreed their actual use of library resources had increased and 42.6% (n=23) strongly agreed they were more likely to request assistance from the librarian due to librarian involvement in the OJC.
Conclusions: Even though a majority of OJC discussions did not necessitate librarian involvement or additional literature searches, survey results indicated that the librarian's involvement has been successful in raising awareness of library services, growing library usage, and increasing the likelihood of requests for librarian assistance among nurse OJC members.

149

Improving Cultural Approaches to Pediatric Palliative Care in Central Massachusetts

Nancy E. Harger, Education and Clinical Services Librarian, Lamar Soutter Library; **Usmani Naheed,** Director, Pediatric Palliative Care, Department of Pediatrics; Medical School, University of Massachusetts–Worcester; **Jennifer Costa,** Pediatric Nurse Practitioner, Department of Pediatrics; **Estela McDonough,** Coordinator, Education and Training, Interpreter Services; UMass Memorial University Campus, Worcester, MA

Objectives: To determine the impact of a web tool developed to improve health care providers' ability and comfort in caring for a diverse patient population in the hospital setting.
Methods: The pediatric palliative care team including a pediatric oncologist and a nurse practitioner in association with a clinical medical librarian and a hospital-based interpreter, collaborated to create a resource using SpringShare software to create a library guide. The purpose is to provide cultural and palliative care

information resources, books, and journal articles to assist health care workers at UMass Memorial Children's Medical Center in caring for children from the diverse cultural backgrounds living in the region. In order to introduce and evaluate the usage of the library guide, we plan to survey Children's Medical Center staff including nurses, residents, attending physicians, and child life staff at baseline and after visiting the library guide. As of this date, the usage of the guide has had over 400 hits per month or 1,200 hits in the last 3 months (libraryguides.umassmed.edu/diversity_guide).
Results: We will be conducting a survey of all children's medical center staff, nurses, and physicians to evaluate the usefulness and impact of this resource.
Conclusions: Our results of the survey will be complete in April and will be presented at the poster session in May.

153
In Search of...a Single Point-of-Care Reference Tool for the Clinical Enterprise
Carlene Drake, Library Director, University Libraries; **Shirley Rais,** Chair, Serials and Electronic Resources Department, Loma Linda University Library; Loma Linda University, Loma Linda, CA
Objectives: The primary objective of this project was to consolidate the current suite of point-of-care clinical reference tools under a single vendor, ensuring consistency, interoperability, and seamless access to a multitude of resources. A secondary objective became apparent as the project progressed: to set up a process for reviewing future requests for point-of-care tools.
Methods: A request for proposal (RFP) was sent to eight point-of-care vendors requesting the functionality that would be needed by the clinicians in a single point-of-care reference tool. Writing and reviewing the RFP was a collaborative process between the university library and the office of the chief medical informatics officer for the medical center. Four vendors were selected to present their product via webcast. Scoring sheets were developed and given to all who attended the vendor presentations. The scoring sheets were then compiled, and the results cumulated and discussed by a group of physicians, librarians, and medical center administrators.
Results: It was determined that none of the four vendors who presented could fulfill all the information requirements of the clinicians in a single product. In the end, products were selected from several vendors, and one product was cancelled.
Conclusions: No one single product exists that fulfills all the information needs of the clinicians. Using the RFP process that the medical center used to procure other products was very helpful in deciding which products to retain and add. The decision to cancel one popular product was supported by facts and by key personnel in the medical center.

154
Information Literacy Classes for Medical Students: A Survey in Japanese Medical Universities Δ
Yumi Yamashita, Librarian, Library, Kyoto Prefectural University of Medicine, Kyoto, Japan
Objectives: To identify and analyze classes by librarians in Japanese medical universities.
Methods: I sent a questionnaire to the library of all eighty medical universities in Japan. I received responses from all libraries.
Results: In Japan usually, the schools of medicine are up to 6 years long, and the schools of nursing are up to 4 years. Classes were conducted in the 64 libraries. There are 80% of classes conducted in the libraries. Most of the classes are carried out by the 3rd-year nursing school. There are 43 classes. This is followed by the number of classes in the school of medicine for 1st year, which has 37 classes. After that, is the number of classes in the 1st year school of nursing that has 28 classes. Most of the lowest number of classes are conducted in the 6th year of medicine in 1 library. The most frequent content of the classes was "information retrieval methods": 136 classes (87%). Then 127 classes in "method of information retrieval," "library guide," "how to write and read the papers," "evidence-based medicine," "presentation and information dissemination." The database that has been most frequently used was the online public access catalog (OPAC). On the other hand, others were many in this order, Ichushi-Web (115), PubMed (67), CiNii (55), NACSIS Webcat/Webcat Plus (43).
Conclusions: We should conduct classes for students at least twice. First, we should discuss about which library or a place what we can do. Secondly, we should discuss how to use it. Related to classes, there are six issues:
- establish a system of curriculum
- develop where classes are held
- attendance rate
- lack of time
- enhance the content of the classes
- training of librarians

157
Integrating Evidence and Librarians into a Complementary and Alternative Medicine Curriculum
Laurie W. Davidson, Associate Director, Information Services; **Sarah Cantrell,** Education Services Coordinator; **Michele Malloy,** Research Services Coordinator; Dahlgren Memorial Library, Georgetown University Medical Center, Washington, DC
Objectives: Health sciences librarians were requested to develop and direct an "Introduction to Evidence-Based Medicine" course for the complementary and alternative medicine (CAM) program within the master's of science (MS) degree in physiology-complementary and alternative medicine (CAM) program. This course emphasizes developing lifelong skills in information retrieval and research literacy. Our poster describes the librarians' experience with the development, evaluation, and revision of the course, highlighting lessons learned.
Methods: In collaboration with CAM-MS program directors, course goals and learning objectives were established. Librarians were given freedom to develop the course structure and content. Course development was guided by librarians' experience teaching evidence-based medicine (EBM) courses in the school of medicine and by investigating EBM and research-related curricula offered in other medical schools, graduate programs, and National Institutes of Health (NIH)/National Center for Complementary and Alternative Medicine (NCCAM)-funded educational initiatives. Additionally, creation of the course content was facilitated by learning the fundamental concepts in CAM research and the debate surrounding the application of EBM principles into investigating the effectiveness of CAM modalities.
Results and Conclusions: In fall 2011, 25 students enrolled in this required course, which was based on six competencies derived from the EBM process. Pedagogical methods included: iclicker pre-test, lectures, small groups, self-directed activities, peer teaching, and panel discussion. Core faculty consisted of three librarians, and invited lecturers including CAM practitioners, family physicians, and statisticians. Student performance was assessed via quizzes, group participation, mid-term exam,

and final project presentation. Based on faculty recommendation and student feedback, the course was revised and offered again in fall 2012. The success of this course exhibits how the roles of academic librarians are evolving and expanding. While there is an increasing trend in librarians serving as instructors or faculty within courses, it is unique to have librarians serve as course directors, particularly for a course that is not solely focused on teaching literature searching skills. As librarians continue to assume nontraditional roles, such as course directorship, it is imperative to further their education in the areas of course design, pedagogy, instructional technology, research methodology, and course discipline specific content in order to achieve a well-rounded learning experience for the students. The reputation of the librarians and experience teaching in the school of medicine's EBM courses solidified faculty confidence in their abilities. Networking with the faculty, staff, and CAM practitioners strengthened library support for the entire CAM curriculum.

161

Integrating Student Evaluations into Online Teaching Δ

Jill Eileen Foust, Adjunct Faculty, School of Information Sciences, and Reference Librarian; **Mary L. Klem,** Reference Librarian; Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

Objectives: This poster examines key lessons learned from analysis of student evaluations of an online, postgraduate certificate program in health sciences librarianship.

Methods: Online education requires different teaching skills than those used in the traditional classroom. An effective way to improve teaching success is through analyzing student feedback about course content and instruction. A retrospective analysis of two data sources was used to achieve this. Two cohorts of students taking a post-graduate class on health sciences librarianship were asked at the end of the semester to write a reflective "letter to a future student," in which they shared their thoughts about the course, as well as strategies for completing the course. Students were also asked to complete a standardized course content and instructor evaluation form. Letters and comments were de-identified and analyzed. Course design, assignments, discussion boards, and instructor strengths and weaknesses were revealed. The analysis provided the catalyst for course changes and improvements. This poster will focus on the evolution of the course based on student evaluation input.

Results: Examination of responses from the first cohort indicated that students found the use of multiple instructors to be confusing, leading to lower ratings of instructor teaching styles and interpersonal skills. Students were also concerned about the number of readings and assignments, and desired more interaction with instructors. After revision of the course content, cohort 2 reported few concerns about instructor teaching style and interpersonal skills. Some concerns about the amount of readings and assignments remained. While the course was reformatted, there was no attempt to decrease the course content for the second cohort.

Conclusions: Selected use of feedback from cohort 1 appeared to produce improvement in students' overall course satisfaction.

165

Inter-Institutional Sharing of Veterinary Specialty Boards Reading Lists Using LibGuides

Jessica R. Page, AHIP, Assistant Professor and Head, Veterinary Medicine Library, Ohio State University–Columbus; **Heather K. Moberly, AHIP,** Coordinator, Veterinary Services, Medical Sciences Library, Texas A&M University–College Station; **Vicki F. Croft, AHIP,** Head, Animal Health Library, Washington State University–Pullman; **Ann Viera,** Associate Professor, Veterinary Librarian, Pendergrass Agriculture and Veterinary Medicine Library, University of Tennessee–Knoxville; **Laura Rey,** Senior Library Technical Assistant II, William E. Brock Memorial Library, Oklahoma State University–Stillwater

Objectives: American Veterinary Medical Association (AVMA) Recognized Specialty Veterinary Organizations (RSVOs) provide recommended reading lists to prepare candidates for qualifying examinations. Veterinary medical librarians work to keep the lists updated and accessible. We aim to highlight relevant, practical resources from the veterinary community's perspective, benchmark specialty collections, save veterinary practitioners' time, and maintain a template for veterinary libraries worldwide.

Methods: There are twenty-one separate RSVOs, with forty distinct specialties providing broad subject coverage of veterinary medicine as a discipline; all but one provide recommended reading lists. Copies of the reading lists were obtained and are maintained in an Excel spreadsheet. Librarians worked with members of each RSVO to ensure lists are current, then developed the lists into a web template using LibGuides. LibGuides allows veterinary medicine librarians from other institutions to collaboratively curate the recommended reading lists.

Results: A template has been developed that includes the reading lists for all recognized veterinary specialties. Each web-based reading list guide can be adopted as a template by other libraries with a few clicks and can be used by the seventeen AVMA-accredited colleges of veterinary medicine currently using LibGuides, as well as by other US and international veterinary colleges that use a different content management system. Guide templates that board certification candidates need, different at each veterinary college, can be then be linked to library holdings with minimal effort and maximum accuracy.

Conclusions: Ongoing work includes developing instructions and assistance for librarians who wish to use the template at their own institutions, integrating WorldCat records into the template as an alternative to local holdings, and using the reading lists as a resource for developing a basic list of veterinary books (to complement the basic veterinary serials list).

169

International Health Care Issues and Services Identified while Mapping the Gerontological Nursing Literature Δ

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Objectives: Extend the bibliometric analysis of cited references and analyze keywords, subject content, and authors to discern global issues of aging and collaborations in the articles published in three leading gerontological nursing journals from 2008–2010.

Methods: Life expectancy continues to increase in developed countries, but the same does not hold true for developing countries. This study is an extension of the Nursing and Allied Health Resources Section (NAHRS) Task Force on Mapping the Nursing Literature. The scope has been extended by studying the keywords in titles, authors supplied keywords, assigned subject headings, geographical headings, and authors' affiliations in order to build a picture of international health care reflected in the three

journals studied for the years 2008–2010, *Geriatric Nursing, Journal of Gerontological Nursing,* and *International Journal of Older People.* Thus, in addition to identifying citation patterns for journal articles, books, websites, government documents, dissertations, and important health care issues will be identified for the geriatric population. All NAHRS mapping studies use a common methodology to identify citation patterns. The 2010 mapping protocol was followed with some modifications in comparisons with the protocol used for the 1996–1998 original unpublished study of citations patterns for the journals: *Geriatric Nursing* and *Journal of Gerontological Nursing.*

Results: Poster gives tables listing the top tier of journal titles cited in 1996–1998 compared to 2008–2010. We are using a tag cloud tool to bring out the most popular subjects (selective examples: dementia, Alzheimer's, medications, falls, nursing homes, as well as ethnicities and geographies (selective examples: Korean, Taiwanese, Chinese, Europe, United States, Canada, United Kingdom, Asia, Scandinavia).

Conclusions: This study is finding many global commonalities in the problems and treatments faced by the aged populations.

173

Keeping Faculty and Residents Up-to-Date with a Library-Created Electronic Table of Contents (E-TOC) Service Δ

Annie M. Hughes, Information Services Librarian, Wilson Dental Library, University of Southern California–Los Angeles

Objectives: In 1967, the Wilson Dental Library launched a current awareness service that provided patrons with photocopied tables of contents from selected journals. Each faculty selected the journals that were of interest to them and then the library staff sent a packet via interoffice mail or snail-mail. In 2010, in a move to go paperless, the library launched an electronic table of contents (E-TOC) service.

Methods: In order to develop the E-TOC service, the library collaborated with a group of computer science students who built the system using the LAMP software bundle. The E-TOC site allows faculty and residents to be linked to journals in which they are interested. While RSS feeds can fulfill this need, our system takes away the step of faculty and residents having to subscribe to feeds on their own. Each day the library staff receives electronic journal TOCs from publishers and then copy and paste text into a built-in form in the E-TOC system. If the faculty or resident has selected to receive this particular e-TOC, they will then receive an email in their inbox generated by our E-TOC system. A bitly.com link directing subscribers to the licensed e-journal content is also included.

Results: After almost 3 years of providing the E-TOC service to the Ostrow School of Dentistry of the University of Southern California (USC), the Wilson Dental Library decided to distribute a 13-question survey to the users and non-users (faculty and residents) of the system to gain an overall picture of the usefulness of the E-TOC service. We found that of those who are using the service, most are reading the email sent to them, they often or occasionally access the electronic article through the link provided, and most are reading the articles for personal development and for class preparation. On average, users read 2–5 articles per month as a result of the service, and most are not utilizing RSS feeds. When asked what they enjoy most about E-TOC, faculty and residents responded that they are happy to reduce the use of paper and find it easier to organize and store electronic copies of articles.

Conclusions: The survey results indicate that the E-TOC service is of value to patrons, and we will continue to offer the service. The cost to provide the service is minimal and overall the time spent sending out alerts is small: 6 hours per week. The move to a paperless, automated system is environmentally friendly, and patrons can access articles from journals of their choosing easily.

177

Leveraging Technology and Staffing in Developing a Tiered Liaison Program Δ

Jeff Williams, Associate Director, Research and Education Services; **Aileen McCrillis,** Research Librarian and User Experience Librarian; **Richard McGowan**, Research Librarian; **Joey Nicholson,** Education and Curriculum Librarian; **Alisa Surkis,** Translational Science Librarian; **Dorice Vieira,** Clinical Librarian; **Holly Thompson,** Library Associate; NYU Health Sciences Libraries, New York University–New York

Objectives: The New York University (NYU) Health Sciences Libraries developed a tiered liaison program to better serve high-priority user groups. Our objectives were to give librarians more time and focus to engage in collaboration with specific user groups, better identify individual librarian responsibilities, and provide more sustainable methods for supporting routine user information needs outside of the liaison program.

Methods: As a parallel process to strategic planning, we identified priority user groups that would become the responsibility of liaison librarians. Preexisting relationships and other factors were considered in assigning liaison responsibilities. The efficiency of providing routine assistance to users outside of the liaison program needed to be improved to allow sufficient time for liaison librarians to focus on their assigned user groups. Technologies like LibGuides, virtual reference, and web-based instructional videos were investigated as approaches to providing better support for routine user needs. Additionally, strategies for greater involvement of nonlibrarian staff in supporting routine user information needs were considered.

Results: During development of the liaison program, explicit service levels or "tiers" were identified. These service levels will assist liaison librarians in establishing realistic expectations within their assigned user groups for sustainable levels of service. This also lays the groundwork for developing sustainable levels of service for user requests outside of the liaison program. Although the disruption caused by Hurricane Sandy impeded progress on technological approaches to user information needs, work has begun on LibGuides for heavily used resources, as well as a sophisticated email reference system that includes integration with a knowledgebase to provide a menu of self-service answers for routine queries. The hurricane also slowed consideration of methods for incorporating nonlibrarian staff in supporting routine user information needs. Nevertheless, it is clear that nonlibrarian staff participation in triaging routine user information needs would be beneficial. How to best staff this function is undecided.

Conclusions: The NYU Health Sciences Libraries were an outlier in the academic health sciences library community in not having a liaison program. When the decision was made to develop a program, the libraries benefitted from adopting a number of best practices within the community. Based on these best practices, critical decisions leading to success included: focusing on a subset of high-priority user groups for liaison assignment, developing explicit service levels to help manage expectations, and leveraging technology to better support routine information needs. Annual quantitative and qualitative assessment will evaluate the effectiveness of the program for our user community.

181

Librarians Collaborating with Faculty to Develop and Deliver an Evidence-Based Eye Care Course Δ

Ruth Harris, Education Services Librarian; **Frances Chu,** Associate Director, Reference and Outreach; **Rudy R. Barreras,** Marketing and Outreach Librarian; Harriet K. and Philip Pumerantz Library; **Elizabeth Hoppe,** Founding Dean, College of Optometry; Western University of Health Sciences, Pomona, CA

Objectives: Was there an improvement in the effectiveness of the teaching methods used by librarians in an evidence-based eye care (EBEC) course in the college of optometry (CO) after modifying the content and execution based on the evaluation of the previous year's assessment?

Methods: In the summer of 2011, librarians taught sections on evidence-based practice (EBP), resources, health literacy, and staying current with the literature in the EBEC course. The instructor created assignments designed to assess long-term ability to apply EBP concepts. Librarians taught didactically utilizing TurningPoint clicker technology to assess initial understanding. After comparing the desired outcomes to the completed assignments, librarians identified several areas in need of improvement. Librarians worked with the instructor to: modify cases that would differentiate background and foreground questions, create an EBP assignment and rubric, develop a course guide, rework the content to introduce research design, and clarify EBP principles. As a result, in the summer of 2012, librarians will teach sections on EBP, resources, website evaluation, health literacy, public speaking, and staying current with the literature utilizing TurningPoint and Poll Everywhere.

Results: Reviewing the TurningPoint questions, librarians observed that students were able to immediately apply EBP concepts in class with structured content. However, when students attempted to apply these concepts as part of an assignment, the provided worksheets forced them to create a patient/problem, intervention, comparison, outcome (PICO) statement, even when unnecessary, thereby skewing the results. Therefore, the data could not show if students were able to apply PICO and clinical question concepts independently.

Conclusions: TurningPoint results showed that librarians were effective in teaching EBP concepts in a structured answer format. However, worksheet analysis showed that the question format was too clinically oriented and did not provide a clear indication of which type of clinical question to create, as PICO was required for each question. To fully evaluate instructional effectiveness, the worksheets need more adjustments. It was also noted that the rubric needed to be revised and inter-rater reliability was somewhat of an issue, possibly due to the wording of the rubric. Librarians are working closely with the instructor to address these issues.

185

Library as Outreach Destination for Youth: Getting Them Excited about Medical Professions

Jen DeBerg, Clinical Education Librarian; **Sarah Andrews,** Access Services Supervisor; Hardin Library for the Health Sciences; **Linda Walton,** Director, Hardin Library and UI Branch Libraries, and Associate University Librarian, University of Iowa Libraries; **Christopher Childs,** Education and Outreach Librarian; **Amy Blevins,** Clinical Education Librarian; Hardin Library for the Health Sciences; University of Iowa–Iowa City

Objectives: This poster will highlight the development of an outreach program that is a component of the junior mini medical school program, sponsored by the medical college. The library simulation tours, developed and delivered by library staff at the health sciences library, are designed to stimulate youth interest in science and health care professions.

Methods: Through conversations between the college of medicine's external relations department and the simulation center's advisory committee, the library became a regular part of outreach activities to encourage children to consider science careers. This pipeline activity is a requirement for the Liaison Committee on Medical Education funding and is an important part of the medical college's mission. The aim of this poster is to demonstrate how library staff have collaborated to create interactive simulation activities for youth, often from underrepresented populations, such as eye exams, neurological or cognitive assessments, and cardiac rhythm evaluation. The various activity stations, the use of simulation equipment by the students, and the value of staff expertise will be conveyed.

Results: Data about program outcomes will be presented, and the broader contribution that the program is having on health sciences career interest will be explored. Impact on the visibility of our library, connections with faculty in other colleges, and expansion of programs will be communicated.

Conclusions: This successful program has a positive impact on the junior mini medical school curriculum. Librarians who have opportunity may consider using examples from our presentation to initiate or expand programs at their libraries.

189

M3s and Me: Integrating Evidence-Based Practice into a Medical School Curriculum Δ

Kathy Cable, Information Services Librarian and Liaison, Brody School of Medicine; **Megan Besaw,** Liaison, College of Allied Health Sciences and College of Health and Human Performance; William E. Laupus Health Sciences Library, East Carolina University, Greenville, NC

Objectives: To conduct an evaluation of the effectiveness of evidence-based medicine (EBM) research instruction to third-year medical (M3) students, as well as the frequency with which those students use the acquired skills when treating patients. Results will be used to improve EBM research instruction.

Methods: Every semester third-year medical students rotate through instructional classes at the medical library to improve research skills. This project is an evaluation survey of the M3 students currently in the "EBM Orientation for M3" course. The class focuses on EBM research skills with the MEDLINE databases (PubMed, Ovid). The survey will be designed to determine how frequently M3s use EBM research skills taught in the course when treating patients. Results of this survey will provide data used to redesign the course to provide the most effective instruction and support to future M3s for EBM research.

Results: There were 9 respondents to the survey. The majority of students reported using MEDLINE via PubMed weekly since their EBM orientation (77.8%). Fifty percent of those surveyed indicated that they have not searched MEDLINE via Ovid since their orientation. The medical students also recounted that they do not use the patient/problem, intervention, comparison, outcome (PICO) technique during their clinical rotations (88.9%). Less than half of the students reported having to locate EMB information (44.4%). Also, the majority indicated that they found the EBM orientation helpful (88.9%).

Conclusions: The pilot study showed that the medical students utilize MEDLINE via PubMed more frequently than MEDLINE via Ovid. Interestingly, the students did not take advantage of

the PICO technique. As a result, our teaching strategies will be further evaluated for future instruction sessions.

193

Measuring the Effectiveness of a Library Liaison Program: A Three-Pronged Approach Δ

Marie T. Ascher, AHIP, Associate Director, User Services; **Shawn F. Manning,** Education and Outreach Librarian; Health Sciences Library, New York Medical College–Valhalla

Objectives: In fall of 2010, the health sciences library restructured its liaison program, adopting a more granular, department-specific approach and including all professional librarians. The intention of this restructuring was a more explicit and personalized program for improved service to and communication with all of our academic departments. This evaluation of the program measures our success at achieving this goal.

Methods: Formative survey evaluation and focus groups. Both departmental faculty and librarian liaisons will be surveyed and invited to participate in focus groups to measure our current status and provide input for future program development. (1) The faculty survey will evaluate success through measures related to awareness, use, and satisfaction with the liaison program. (2) We will also ask questions of faculty who are aware of the program but do not utilize it. (3) The librarian survey will measure the utility of the program in terms of how well it has supported the achievement of library-wide goals such as improved communication and delivery of service, as well as workload and librarian satisfaction. Focus groups will be used to clarify responses and inform future development. This survey and evaluation will build upon previously executed evaluations elsewhere.

Results: The poster will report findings of the three surveys and focus group sessions. Preliminary findings indicate an uneven level of interaction with departments. At the time of this update, the three surveys in the process of deployment. The authors will be looking for gaps where there is an indicated interest but has not been activity and will consider some redistribution of staff assignments where applicable.

Conclusions: Preliminary results indicate that the liaison program has been successful but will need some adjustments in order to make the best use of librarian manpower and meet program goals.

197

Native Cancer Information Resource Center and Learning Exchange (CIRCLE) Enables All Native American Providers with Resources and Services

Dawn Littleton, AHIP, Head, Public Services, Mayo Clinic Libraries; **Judith Salmon Kaur,** Medical Director, Native American Programs of the Mayo Comprehensive Cancer Center; **Lisa A. Baethke,** Program Coordinator, Native American Programs/ Native CIRCLE; Mayo Clinic, Rochester, MN

Objectives: American Indian and Alaskan Native (AI/AN) populations as a whole suffer significantly poorer health than do non-Hispanic whites due to higher rates of obesity, diabetes, cancer, and other chronic diseases. Our objective is to improve health equity by sharing how Mayo Clinic's Native Cancer Information Resource Center and Learning Exchange (CIRCLE) education services are distributed in the United States and around the world to AI/AN patients and their providers.

Methods: Librarians collaborate with Native CIRCLE staff to provide resources to improve AI/AN health equity. Methods include collaboration for assessment of culturally sensitive content and rapid provision of education services and resources nationally and internationally.

Results: Native CIRCLE's most requested health topics are breast and cervical health, nutrition and diabetes, smoking and smoking cessation, men's health, and general wellness. In 2012, Native CIRCLE disseminated over 30,000 copies of select materials to AI/AN communities, patients, and their providers around the world.

Conclusions: Mayo Clinic's Native CIRCLE provides health care education support to all AI/AN people, communities, and their information and health providers. Native CIRCLE supports medical librarians, health providers, and AI/AN people, nationally and internationally.

201

Non-Animal Methods in Research and Education Δ

Robert Cagna, AHIP, Library Director, Health Sciences Center, West Virginia University–Charleston

Objectives: The poster will examine various non-animal methods in research and education. Are there valid alternatives to traditional vivisection, and what can medical librarians do to help researchers grappling with this issue?

Methods: The poster will examine the literature, evaluate it, and interpret it in examining new alternatives to animal research methods. The poster will describe regulatory issues, the consequences of dissection techniques, problems with animal testing, the issue of animal pain, and the efficacy of non-animal alternatives.

205

Nurturing Cultural Competency in Future Physicians: An Extracurricular Education Series to Raise Awareness of Local Health Disparities in Medical Students Δ

Stephanie M. Swanberg, AHIP, Assistant Professor and Medical Librarian; **Caryn Reed-Hendon,** Director, Diversity and Inclusion; Medical Library; **Melphine Harriott,** Assistant Professor, Biomedical Sciences; **Stephanie Jurva,** Administrative Coordinator, Student Services; William Beaumont School of Medicine, Oakland University, Rochester, MI

Objectives: In addition to training skilled physicians, medical schools are expected to produce culturally competent physicians who care for patients of varying backgrounds. However, cultural competency is often difficult to integrate into the curriculum. Therefore, an educational series was developed to aid students in recognizing diversity and health disparities, as well as provide opportunities for community involvement.

Methods: An extracurricular educational series was launched during the first year of medical school (M1) by a multidisciplinary team consisting of a medical librarian, the director of diversity and inclusion, a basic science faculty member, and a student service coordinator. The team worked together to plan and execute the series, which was closely mapped to the M1 curriculum and medical school competencies. Themes for the sessions were chosen by evaluating the National Health Observance and the Culture and Diversity calendars and the current M1 curriculum. For example, a session on women's heart health was conducted during American Heart Month and coordinated with the students' cardiovascular course. Representatives from different aspects of health care, such as physicians as well as nonprofit organizations and patients were invited to speak on the chosen topic. The nonprofit organizations also provided students with opportunities for service activities.

Results: The educational series was successful in raising awareness of health disparities and issues of diversity not only in M1 students, but also members of the faculty, staff, and administration. The impact of the educational series was measured by the number of participants, informal feedback, and results from surveys distributed after each event.
Conclusions: Developing opportunities for students to learn about diversity and health care discrepancy issues, specifically of the local community and in the convenience of their own campus, is an effective way of bringing health disparities and issues of diversity to life. In the future, the planning team aims to continue the series and to coordinate this series with the service-learning staff to provide additional opportunities for community service.

213

One Integrated Health Record: The Librarian's Role in Linking Patients to Their Personal Health Data and Contextual Information

Dixie A. Jones, AHIP, Director; **Mararia Adams,** Assistant Director and Head, Systems; **Talicia Tarver,** Digital and Information Services Librarian; Medical Library, Louisiana State University Health Sciences Center–Shreveport; **Alejandro Garcia,** Team Leader, MyChart, Louisiana State University Health System–New Orleans

Objectives: The purpose of this project was to assist the institution with making patients aware of MyChart, the personal health record component of Epic, which is the institution's new electronic health record system, and to provide access to it for patients who do not have Internet-connected computers at home. Partners were information technology (IT) personnel, public librarians, and the family medicine clinic.
Methods: With the advent of meaningful use, more electronic health records systems are incorporating tethered personal health records (PHRs). Librarians identified personnel in charge of MyChart, the PHR in the institution's electronic health record system, and worked with the team leader to include MedlinePlus Connect's contextual health information. Funding was awarded to assist with costs of printing posters and educational materials, as well as to place a computer in the family medicine clinic's waiting room. The library staff partnered with two public library systems from whom the institution's patient population is largely drawn and educated their staffs about MyChart, MedlinePlus Connect, and other National Library of Medicine (NLM) consumer health information databases. Posters and cards in the clinics publicized MyChart to patients, as well as its availability on computers in public libraries. Library staff provided demonstrations of MyChart to public librarians and to patients.
Results: Patients evidently viewed the printed materials distributed in waiting rooms, as the library received many calls about MyChart as a result of the telephone number printed on the cards. Through these calls, librarians assisted the MyChart team leader in identifying clinics that were having trouble generating activation codes for patients to register and use MyChart. Over 5,600 patients registered between mid-November 2011 and end of November 2012.
Conclusions: Most patients were not interested in coming to the library for demonstrations, but many of them expressed interest in using MyChart. The contextual linking of MedlinePlus Connect worked well for most topics. Because of the institution's initiative to include MedlinePlus Connect in the patient portal, all institutions in the state system will also have the added value of MedlinePlus Connect in MyChart for their patients.

217

One Search: Examining the Use and Perceptions of a Discovery Tool Δ

Megan Besaw, Liaison, College of Allied Health Sciences and College of Health and Human Performance; **Christine Andresen,** Instructional Design Librarian and Liaison, School of Dental Medicine; William E. Laupus Health Sciences Library, East Carolina University, Greenville, NC

Objectives: Recent implementation of Summon has prompted the library staff to question the usefulness of a discovery tool in a health sciences library setting. This study seeks to measure students' opinions of a discovery tool when compared to a subject-specific database like CINAHL.
Methods: During the fall semester, undergraduate and graduate students from the college of allied health sciences will be provided with library database instruction, specifically searching techniques for CINAHL and Summon. Students will be provided with a clinical scenario and then asked to locate relevant information in both the discovery tool and subject-specific database. Following this, students will provide their perceptions of the two resources with a five-question survey. It is hypothesized that students will prefer the subject-specific database over the discovery tool. However, if they are searching for more general information, students may prefer the discovery tool.
Results: There were 87 respondents to the survey. When comparing One Search to CINAHL, 94% of students preferred CINAHL. Many of the students found the limit features that are offered in CINAHL very helpful. The respondents also pointed out that the articles that were retrieved were more relevant to their searches. Survey respondents often felt that the results included in One Search were too broad and that it was difficult to narrow their results. When given the choice of using CINAHL or One Search, 93.7% reported that they would be more likely to use CINAHL over One Search. The majority of students surveyed also indicated that they would be willing to use One Search in the future (85.2%).
Conclusions: As hypothesized, the surveyed students preferred the subject specific database, CINAHL. For health sciences research, CINAHL's facets and ease of navigation were ideal for helping the students locate relevant information as quickly as possible. Although the students largely preferred the subject specific database, it is important to note that they would also be willing to use One Search again, for less-specific and more general research.

225

Organization and Outreach: Building a Microsoft Access Database to Improve Circulation Service to Our Community

Tiffany Tawzer, Technology Coordinator, National Network of Libraries of Medicine, Greater Midwest Region, Library of the Health Sciences, University of Illinois–Chicago; **Melissa Theroux,** Evening and Weekend Library Coordinator; **Amy R. Lapidow,** Associate Librarian, Information Services and Circulation; Hirsh Health Sciences Library, Tufts University, Boston, MA; **Gail Y. Hendler,** Associate Provost and Director, Health Sciences Library, Loyola University Chicago, Maywood, IL

Objectives: A circulation department reorganization prompted a quality improvement project for our library desk assistant staff. The project aimed to organize and update our highly used reserve collection to improve access for students, faculty, and staff. We initiated outreach to faculty to partner with purchase decisions

and update the collection. We promoted our outcomes on Facebook to the campus community.
Methods: Two full-time circulation staff/library school students worked with the circulation librarian to plan and implement the project. The process began with outreach to faculty, which gave library staff an opportunity to connect with all four campus programs. We worked with course instructors and the head of collection management to update course lists, remove outdated titles, and purchase updated editions. All requests for material were recorded in a Microsoft Access database, creating a way to track the progress of items through all stages of the request process that included: request, purchase, processing, addition, and removal. The database supplements the bibliographic information from the integrated library system (ILS) and allows course-level searching in the library catalog. The reorganized collection provides a record for library staff and course instructors, streamlines circulation service, and improves access for students and faculty.
Results: The reserves project provided the circulation department the opportunity to improve service to and build relationships with students, staff, and faculty. Having accurate course reserve listings helped circulation staff ensure reserve information is current and that all library staff can easily identify and locate needed materials. It also helped us derive lists for students and instructors on demand, and made it possible to create training videos to advertise the collection. By pairing the ILS with a Microsoft Access database, we were able to track requests by many factors, which reduced the amount of time we needed to spend hunting for necessary titles each semester, facilitated weeding, and helped us build a more compact and accurate collection. In addition to the expected benefits, the reserves database has also proved a useful source of data. It allows us to derive up-to-date information for Association of Research Libraries statistics and serves as a data feed for a course list on our mobile website.
Conclusions: The reorganization of the reserves collection and creation of a system to track requests was a worthwhile undertaking. The final product is a useful, maintainable system that will support the department as it continues to provide excellent customer service to students, faculty, and staff.

229

Partnering across Sectors: Integrating Library and Information Services into a University Research Complex

Judith Smith, Liaison Librarian; **Marci Brandenburg,** Bioinformationist; **Marisa L. Conte,** Translational Research Liaison; **Jean Song,** Research and Informatics Coordinator; Taubman Health Sciences Library, University of Michigan–Ann Arbor

Objectives: To develop effective library and information services for a new interdisciplinary university research complex that combines university affiliates, nonprofit organizations, and members of the corporate sector.
Methods: The University of Michigan created a research complex in 2009, the North Campus Research Complex (NCRC), to spur interdisciplinary and translational research and strengthen public-private partnerships. The Taubman Health Sciences Library is spearheading the university library's effort to meet the complex's diverse information needs. This poster outlines the development of services for the research complex and efforts toward embedding information services on-site through MLibrary@NCRC. It provides a description of information needs, presents current and future services, and notes challenges and opportunities arising from creating services for a location that houses individuals and groups across sectors.
Results: The creation of MLibrary@NCRC facilitates a framework for working with all sectors at the research complex and providing a broad spectrum of services ranging from individualized and group consultations and trainings to working with NCRC administration on collaboration initiatives.
Conclusions: NCRC's varied information needs require a multifaceted service approach, innovative roles for librarians, and openness to new opportunities and partnerships.

233

Arctic Health: Corralling Wide-Ranging Information on Arctic Climate Change

Sigrid Brudie, Outreach Librarian, Alaska Medical Library, Consortium Library, University of Alaska–Anchorage; **Laura Bartlett,** Technical Information Specialist, Outreach and Special Populations Branch, National Library of Medicine, National Institutes of Health, Bethesda, MD; **Christy Garrett,** Research Associate, Consortium Library, University of Alaska–Anchorage

Objectives: Declining sea ice, thawing permafrost, coastal erosion, extreme weather, carbon releases, habitat loss, ocean acidification, emerging pathogens—all are calamities linked to climate change in the Arctic, and all have impacts on the activities, diet, safety, and health of people in the far north. Collecting this information in one place is essential in capturing the symbiotic relationship of the Arctic.
Methods: When the National Library of Medicine (NLM) decided to add a climate change section to the Arctic Health website (www.arctichealth.org), a site managed jointly by NLM and University of Alaska–Anchorage (UAA), the goal was to only collect information relating specifically to human health impacts of climate change in the Arctic. Topics such as shrinking ice caps and stressed polar bears were felt to be outside the site's human focus. In evaluating the information to add, it became apparent that nearly all dynamics of Arctic climate change pose threats to the infrastructure, sanitation, food, and water security of Arctic communities. Erosion caused by loss of protective sea ice and by thawing of permafrost has direct health impacts on coastal villages. Displacement of marine mammals, caribou, berries, and other traditional food species affects the diet, nutrition, and subsistence.
Results: With the decision to include both human and nonhuman aspects of Arctic change, the Climate Change page grew to over 2,500 links including books, reports, articles, abstracts, interviews, websites, blogs, proceedings, videos, and other sources. The challenge was to organize this wide-ranging information into categories meaningful to everyone, from worldwide researchers to Arctic residents. This poster displays the categories that were chosen to help navigate the varied content of the website. The next time you seek information on climate change in the Arctic, we hope you visit the Arctic Health website and then want to visit again.

234

A Tale of Two Health Sciences Libraries Working to Improve Health Literacy Δ

Margot Malachowski, Outreach Librarian, Health Sciences Library, Baystate Health, Springfield, MA; **Kate Saylor,** Outreach Coordinator and Liaison Librarian, Taubman Health Sciences Library, University of Michigan–Ann Arbor

Objectives: Our presentation demonstrates two health sciences libraries performing outreach in public libraries to achieve these community goals: increased awareness of high-quality online resources for health information, improved confidence in finding

and evaluating good health information, and increased knowledge of the resources and benefits to be gained from partnering with a health sciences library.
Methods: Public libraries play a role in health literacy by maintaining public Internet access, supplying subscription-based health information resources, and teaching computer literacy skills. Our collaboration brings the skills and resources of health sciences librarians into the community through public libraries. Springfield, MA, is an ethnically diverse city of 153,060, with a poverty rate of 27.6%. Ann Arbor, MI, has a population of 113,934, and a 20.2% poverty rate. Librarians in both locations anticipate that many participants will be low to moderately skilled computer users with varying levels of literacy. We instruct through the live searches projected in the front of the classroom. Whenever possible, we lead hands-on classes in computer labs. We teach how to search for and evaluate online health information. All information presented is evidence-based and freely available to the communities in which we teach.
Results: In 2011, the University of Michigan Taubman Health Sciences Library (THL) provided 8 instruction sessions, reaching 57 community members. Baystate Health Sciences Library (BHSL) provided 9 sessions and reached 39 community members. We averaged 5 participants per class, with some classes attracting up to 25 attendees, and others only 1–2. Of those surveyed, 100% attendees agreed or strongly agreed that they know more about finding high-quality health information on the Internet and knew where to get more help. Benefits to public libraries were reported as increased ability to offer computer classes on special topics and appreciation for support with more specialized reference questions.
Conclusions: THL and BHSL, 2 health sciences libraries located 700 miles apart, provided similar outreach services and experienced similar results. These collaborations with public libraries met our objectives by responding to consumer interests, supporting public library programming, and contributing to health literacy goals in the communities that we serve.

238

From Concept to Practice: A Successful Embedded Librarian Pilot Project Δ

Lin Wu, AHIP, Associate Professor and Reference Librarian, Health Sciences Library; **Virginia Trotter Betts,** Professor; **Susan R. Jacob,** Professor; College of Nursing; **Richard Nollan,** Associate Professor and Reference and Outreach Services Coordinator, Library; University of Tennessee Health Science Center–Memphis

Objectives: The goal of the project is to improve the student experience, outcomes, and information literacy skills for researching and writing. The presentation describes the integration of a librarian into a seven -week online course "Professional Issues," the first intensive writing course in the clinical nurse leader curriculum. The effectiveness and value of the pilot project will be explored and evaluated.
Methods: More than seventy nursing students took the online course. The assessment of the project included course evaluation, pre and post surveys, an analysis of faculty and student email questions to the librarian, and a comparison of students' scores from course assignments. A course research guide was created using LibGuides, and the usage statistics report was generated to examine how the guide was being used.
Results: Feedback from the students and faculty were generally positive. Survey results showed the students were more confident using library resources for research and more comfortable in writing research papers. Students also gained a deeper understanding on how to apply the American Psychological Association style to their research papers. The usage statistics of the research guide revealed that writing guides and FAQ page were well used by the students among other pages.
Conclusions: Bringing a librarian and librarian expertise into an online course provided significant support to the professors and students. The embedded librarian established meaningful connections between the library and the students by providing targeted research assistance at the point of need. The experience of the embedded librarian was intensive at times and required a considerable time commitment. The course instructor and students were extremely appreciative of the customized resources and the librarian's readiness for assistance. Instructors liked the added value that the librarian provided both to their work as well as to that of the students.

242

The UX Odyssey: Improving and Enhancing the User Experience

Christine Andresen, Instructional Design Librarian and Liaison, School of Dental Medicine, William E. Laupus Health Sciences Library, East Carolina University, Greenville, NC

Objectives: In recent years, the focus of academic health sciences libraries has shifted from an emphasis on the physical collections, to one that is user centered. This poster highlights the efforts of one academic health sciences library striving to implement resources, services, and initiatives aimed toward improving the overall user experience of its patrons.
Methods: Improving the user experience is a must for today's modern libraries who seek to accommodate a dynamic population of users who are more independent, are technologically savvy, and have different time demands than ever before. A focused group of employees led this initiative, intending to better understand our users' information and space needs by taking measured approaches to implement new, innovative services and manipulate the library environment to offer a more flexible, usable space. We will present the efforts undertaken, processes and outcomes of implementations, and recommendations for other seeking to improve the user experience in their own libraries.

246

Evolution of the Play Format in Clinical Hospital Educational Programs Δ

Barbara B. Davis, AHIP, Librarian, Library Resource Center, Newport Hospital/Lifespan, Newport, RI; **Sheila Hayes, AHIP,** Senior Librarian and Web Resource Librarian, Robinson Library, Hartford Hospital, Hartford, CT

Objectives:
- To describe a five-year evolution (2006–2011) of writing, producing, and presenting four plays of evidence-based topics to clinical audiences
- To provide a follow up report to the Nursing and Allied Health Resources Section (NAHRS) play presentation at MLA '08
- To compare the authors' experience with international literature published on the efficacy of drama as a teaching tool.

Methods: The authors adopted a play format to support the use of the hospital library; to reach out to clinical staff, especially nursing; and to promote the use of the library and its resources for searching evidence-based literature to effect changes in clinical practice. All play topics resulted from inquiries by nurses seeking information. The plays arose from a desire to educate about research methodology and to create stimulating presenta-

tions that were educational and entertaining. The produced plays resulted after years of interactions with nurses. These interactions led the authors to develop characterizations of the personalities involved. The characterizations led to roles, and the roles led easily to situations that fell into play formats.
Results: Analysis of the six years of data compiled at each presentation will be presented in a table showing the date, location, attendance record, and credits awarded. The four plays were presented eleven times.
Conclusions: Within the six-year period, the process has evolved from hospital librarians writing plays to librarians and nurses collaborating as playwrights. The authors have discovered the impetus to continue to mature and to expand the role of the plays as a teaching medium for clinical staff. We see the future as topic analysis, research support, characterization of roles, and important opportunities for collaboration with nurses.

250
Collaboration as a Means of Developing Better Online Tutorials
Jen DeBerg, Clinical Education Librarian; **Christopher Childs,** Education and Outreach Librarian; **Amy Blevins,** Clinical Education Librarian; Hardin Library for the Health Sciences, University of Iowa–Iowa City
Objectives: The purpose of this paper is to describe the process that our library system used for developing guidelines and best practices for tutorial creation.
Methods: In order to determine the best software for creating tutorials, the library system established a task force to investigate Jing/Snagit, Panopto, Camtasia, and Captivate. After deciding which products to purchase and support, a new team composed of interested representatives from the library system was formed to create best practices and guidelines for tutorial creation, as well as training materials for other library staff. Special consideration was given to creating guidelines that were useful and easy to follow without being overly restrictive.
Results: The best practice tutorials group recommended Camtasia rather than Captivate for projects requiring more editing, Panopto for lecture capture and tutorial creation, and Jing for short videos requiring little editing like those used for answering email reference questions. In addition, a chart was created to suggest which software programs are best suited for specific types of projects. The group also developed standard opening and closing screens for all formal video tutorials, guidelines to follow when creating tutorials, and training materials for the different software programs. The group also held a staff training session to highlight educational materials.
Conclusions: By creating best practices for librarians, the group aims to demystify the tutorial creation process and to increase the amount of online instructional material for the library system. In addition, the group strives to improve the quality of online tutorials by promoting consistent appearance, captions, and active learning elements.

254
Systematically Supporting Research: Standardizing Our Systematic Review Search Service
Connie Schardt, AHIP, FMLA, Associate Director, Research and Education Services; **Adrianne Leonardelli,** Research and Education Librarian; Medical Center Library & Archives, Duke University, Durham, NC
Objectives: To offer realistic, standardized, just-in-time support for systematic reviews being conducted by residents, nurses, faculty, and government-contracted departments in the institution.
Methods: Patrons are often unprepared and ill-equipped to create the complex searches needed for thorough and systematic literature reviews. After witnessing a striking increase in the number of consultation requests involving systematic reviews, the library designed a standardized yet flexible process for offering searching assistance for those conducting systematic reviews. For one group, the library was written into government funding to complete the published and gray literature searches for comparative effectiveness reviews. For a different group of nurses seeking to write clinical practice guidelines, no funding was available, but the need for searching support was strong. A process was thus designed to offer both education and direct searching assistance once the nurse team achieves "critical" project-related tasks. Finally, for individual residents and faculty members conducting their own systematic reviews, the library offers individualized searching assistance and an extensive guide of resources.
Results: This is a description of our project; there will be no results to publish.
Conclusions: This is a description of our project. Our planning process and documents will be displayed on the poster.

258
A Librarian's Multiple Roles in Establishing, Organizing, and Facilitating a Faculty Learning Community to Promote Scholarly Teaching and Medical Educational Research
Misa Mi, AHIP, Associate Professor and Medical Librarian, Medical Library; **Jennifer Eastwood,** Assistant Professor, Department of Biomedical Sciences; William Beaumont School of Medicine, Oakland University, Rochester, MI
Objectives: Building a community of practice—a faculty learning community—serves as a means to build a sense of belonging and to cultivate a culture for a learning organization. The objective of forming the faculty learning community is to create an environment for faculty to engage in a process of collective learning, sharing, and discussion on issues concerning scholarly teaching and its relationship.
Methods: A faculty learning community has been established as an approach to supporting faculty development and growth as scholars of teaching and educational research. It aims to connect a diverse group of faculty who can share their experiences and to offer a venue for faculty across disciplines to explore opportunities to collaborate in evidence-based practices for improving student learning. A library faculty-initiated, year-long learning program has been created, and it encompasses components that are designed based on sound instruction principles. These components—including seminars, workshops, small group discussion, research forums, and retreats—reflect the unique features of the program that are systematic, participatory, collaborative, social, and innovative. Speakers from within and outside of the school have led discussions on instructional needs assessment, various theories of learning, qualitative research, and other topics of interest to the faculty.

262
Going Beyond the Traditional Roles: Collaboration the Key to Survival Δ
Mala K. Mann, Information Specialist and Systematic Reviewer, Support Unit for Research Evidence; **Alison Weightman,** Associate Director, Research and Academic Engagement, Director, Support Unit for Research Evidence, Information

Services, and Co-Convenor, Cochrane Information Retrieval Methods Group; Cardiff University, Cardiff, United Kingdom
Objectives: Evidence-based medicine extends the role of the librarian beyond identification of the literature to practising and teaching information retrieval methods and critical appraisal. The objective is to describe the role of Support Unit for Research Evidence (SURE), a grant-funded research unit based in a university library service whose staff carry out systematic reviews and teach review techniques.
Methods: The unit was established in 2000 to continue the development of an evidence-based project that provided summaries of the best available evidence across a range of topic areas and were widely used in health care and policy development. Since then, SURE has undertaken a wide range of funded projects, partnering with organisations nationally and internationally. The team also provides consultancy and training services for systematic review teams. Expert advice and support is available in the areas of protocol development, writing grant applications, literature searching, critical appraisal, and presentation findings.
Results: During the last 12 years, staff in SURE have coauthored 56 publications, including 43 systematic reviews, and been awarded over £2,000,000 in grant income. This poster presentation will describe the work of the unit and lessons learnt, illustrated by projects and publications. Specific reference will be made to a collaboration between 2 academic institutions and 2 health organisations where a public health specialist, academic researchers, general physicians, and an information specialist conducted a series of systematic reviews to identify the factors that reduce the risk of unplanned hospital admissions.
Conclusions: The unit seems to thrive even in the current economic downturn. Engagement and collaboration with key stakeholders within and beyond the home university and the expertise of its staff appear to be fundamental to success.

266

Top Down versus Bottom Up: The Social Construction of the Health Literacy Movement Δ

Jeffrey T. Huber, Director and Professor, School of Library and Information Science; **Robert M. Shapiro II,** Public Health Librarian, Chandler Medical Center Library; University of Kentucky–Lexington; **Mary L. Gillaspy,** Manager, Health Learning Centers, Northwestern Memorial Hospital, Chicago, IL
Objectives: To examine the social, political, and economic events that shaped the health literacy movement.
Methods: A review of health literacy and relevant historical literature was conducted in order to identify specific events, define themes, and make comparisons to other movements.
Results: The health literacy movement has been socially constructed over time. Unlike the consumer health information movement, which developed with broad public support, the health literacy movement has been fashioned primarily from the top down, initiated by policy makers and imposed on targeted populations. Interest in, and support for, the health literacy movement has waxed and waned, often dependent on political agendas. To date the health literacy movement has met with limited success.
Conclusions: In an era of increasing health care costs, it is not surprising that health literacy is once again at the forefront of policy discussions, given that economists and policy makers currently estimate the cost of limited health literacy in the United States to be in the range of $1.6 to $3.6 trillion annually. Health literacy has been recognized as an issue key to the success of health care reform and to the continued advancement of the nation's status as an international leader where health and well-being are concerned. New roles for librarians are available to make impact the nation's health literacy.

270

Data Management Needs Assessment Δ

Xiaomei Gu, Clinical Education Librarian, Hardin Library for the Health Sciences; **Shawn Averkamp,** Data Services Librarian, University of Iowa Libraries; **Linda Walton,** Director, Hardin Library and UI Branch Libraries, and Associate University Librarian, University of Iowa Libraries; University of Iowa–Iowa City
Objectives: Several funding agencies including the National Institutes of Health (NIH) require or encourage developing data management plans for research. This study assesses the data management needs across campus. Information gained will help coordinate services across campus to support effective data stewardship throughout the research life cycle and help increase visibility and accessibility of research data produced at the university.
Methods: A mixed-mode survey methodology involving web-based questionnaires and face-to-face interviewing was used. A questionnaire was developed specifically for this study with inputs from multiple stakeholders on campus such at the campus information technology (IT) service. The questions have been pretested by several researchers from multiple disciplines on campus and will soon be distributed via campus mass email to all researchers on campus. Efforts to encourage participation and increase the response rate will be made, such as prenotification emails from each college dean to its researchers. The online survey will identify potential participants for the face-to-face interviewing. Results will also inform the development of questions for the semi-structured interviewing.
Results: The survey received a total of 784 responses, both partial and complete. A total of 183 respondents are willing to be interviewed at a later time. Key findings and observations include: (1) researchers generate data in a wide range of formats, and most work with 2 or more; (2) nearly one-quarter of respondents report writing data management plans as part of their funding requirements; (3) over one-third of respondents report not receiving assistance with data management; and (4) availability of storage is a concern for many researchers.
Conclusions: The survey results illustrate a range of needs across the university's disciplinary spectrum as well as a view into current services, both internal and external, that researchers consult to meet those needs. Future interviews will explore each area of data management in depth to learn how researchers find assistance, where they would prefer to receive assistance, what their level of satisfaction is with services they receive, and what their awareness of existing available services is.

274

Distance Education: How a School of Public Health Informationist Program Responds Δ

Donna D. Hesson, Public Health Informationist; **Peggy Gross,** Public Health Informationist; **Lori Rosman,** Public Health Informationist; **Poshen Wang,** Website Designer; **Steve Katzen,** Software Engineer; **Claire Twose,** Associate Director, Public Health and Basic Science Informationist Services; Welch Medical Library, Johns Hopkins University, Baltimore, MD
Objectives: This project investigated how Welch Library's embedded informationist program could increase its support to international distance-based education programs within the School of Public Health. This project investigated various software platforms to support the School of Public Health's growing

international online education programs. An online survey was administered to gain insight into the information needs of internationally based online education students located in United Arab Emirates and Taiwan.
Methods: This project explores options to increase our online informationist presence in international distance education programs in United Arab Emirates and Taiwan. Areas of analysis included office hours, virtual meetings, and library orientation tutorials customized for the information needs of students in these globally based programs. Our specific aims for the project will be as follows: (1) Compare six potential software platforms for virtual informationist presence and pilot test one. (2) Compare three software tutorial programs for ease of use and pilot test one (3) Assess the effectiveness of these online services to students through a qualitative online survey.
Results: We compared a total of nine library software tools to increase our virtual informationist reference presence to distance students. First, we analyzed six reference platforms to include both free software and Johns Hopkins University-licensed software. Two software platforms, Library H3lp and Adobe Connect, met our needs and expectations for use in virtual office hours. Second, we compared ease of use and anticipated patron satisfaction of three tutorial software packages; VoiceThread met our needs. Third, an online survey of students in these programs reveals that the majority of students would like access to virtual office hours with their informationist and access to more online tutorials. One hundred percent of respondents would like to see the level of library resources and services included in their online courses increase.
Conclusion: Early positive survey results from students related to our implementation of informationist virtual office hours and customized online tutorials lead us to implement future steps. In order to clearly understand the information-seeking needs and experiences of this growing population, we intend to survey the entire School of Public Health distance education students as well as Johns Hopkins Public Health faculty who teach an online class.

278

Blended Learning and Interdisciplinary Teaching to Increase Student Nursing Outcomes Δ

Tierney Lyons, Reference Librarian, Worthington Scranton Campus, Penn State University, Scranton, PA; **Michael M. Evans,** Instructor, Nursing, Penn State University, Dunmore, PA
Objectives: Teaching an introduction to nursing research class to undergraduate students in an accelerated, seven-week course challenges instructors to convene all relevant nursing theory and impart research skills in less than two months of the two- or four-year programs. This paper describes a model developed to facilitate class discussion using a blended learning method and interdisciplinary teaching.
Methods: For years, nursing instructors invited the reference librarian to conduct fifty-minute library instruction sessions but saw the need for more research assistance and a greater understanding of evidence-based practice. To address this issue, the nursing faculty and reference librarian incorporated online discussions as a supplement to the classroom experience. The librarian and the instructor facilitated the web-based interactions and measured the students' experience. Students utilized discussion boards in their learning management software to help them understand research topics related to the course objectives. Benefits of participating included the opportunity to learn from the researchers and their peers and increased reflective thinking abilities. Adding video, audio, or text comments to the interactive online threads, the students, librarian, and instructor wove a story from their clinical, educational, and life experiences to address six discussion forums about search strategies and nursing research. In weekly self-reflection questionnaires, students stated their reactions to online activities and explored postings that were helpful, confusing, and surprising. An evaluation survey collecting quantitative data was conducted at the course's completion to gain feedback on the teaching method and student satisfaction.
Results: Digital storytelling participation increased students' knowledge and critical thinking regarding the lessons. Students had a generally positive experience with digital storytelling, even though they expressed frustration with the technology. All 14 students participated in the online discussion, with 95% creating a post each week and 84% responding to their peers throughout the course. Including a librarian allowed students to get assistance with search strategies at their point of need and receive guidance to appropriate literature review resources without waiting until the next in-person meeting. A strong theme in the questionnaire responses was the appreciation of collaborative learning. Comments expressed how much students learned from each other in this venue, finding encouragement, comfort, relief, understanding, and confidence.
Conclusion: Digital discussions increased students' perceived engagement in course materials and their reflective thinking. Faculty can promote engagement and critical thinking by creating a digital dialog and including librarians in these online interactions. Future research could include larger samples and contexts to evaluate reflective thinking through digital storytelling and compare it with text-based self-reflection using asynchronous discussion boards.

282

Redesigning Services and Marketing Patient Education Classes in a Resource Center Setting Δ

Susan H. Mayer, Patient Education Specialist, Barbara Woodward Lips Patient Education Center, Mayo Clinic, Rochester, MN
Objectives: Question: How can a patient education resource center reach more patients and increase measures of efficiency and productivity by maximizing existing programs and services?
Methods: Using benchmarked patient satisfaction data, annual report evaluation of services, productivity reports, and process assessments, a library manager implements changes in services to increase the number of patients attending each session and reduce the number of individual classes taught. This goal is aligned with the library's strategic plan and accomplished using change management with staff, marketing of services, and continual small steps and evaluation.
Results: Our original objective was to increase the number of patients taught while increasing efficiency by decreasing the number of class sessions. We observed an increase in the number of patients taught during the pilot session (+95), a decrease in the number of sessions taught (-59), and a net gain of 54 instructor hours available to teach patients.
Conclusions: Our instructor team initially felt unsure of providing instruction to patients and families in small groups. They found during the pilot that this approach led to as much or greater self-reported patient satisfaction and learning. We gained instructor availability to teach more patients and increased the number of patients taught in our patient education center.

286

Supporting the Information Needs of Critical Access Hospitals

Kate Flewelling, Outreach Coordinator, National Network of Libraries of Medicine, Middle Atlantic Region, University of Pittsburgh, Pittsburgh, PA; **Jeffrey M. Garvey,** Director, Library Services, Hunter-Rice Health Sciences Library, Samaritan Medical Center, Watertown, NY

Objectives: Critical access hospitals (CAHs) are rural, community-based hospitals; have no more than thirty-five inpatient beds; and are located thirty-five miles from another hospital. This poster will provide an introduction to CAHs and their role in the provision of health care in rural areas of the United States, as well as describe an outreach project to four CAHs in northern New York.

Methods: Research has identified the many difficulties rural practitioners experience with access to evidence-based health information. Clinicians in CAHs not only have the usual problems associated with geographic isolation, but also the nature of work in small facilities requires them to be multi-skilled generalists with wide ranging information needs. This project will introduce and provide library services to four critical access hospitals in northern New York, a remote region bordered by Lakes Ontario and Champlain and centered on the Adirondack Park.

Results: Results will examine difficulties with providing library services to institutions unaccustomed to incorporating evidence-based information into daily practice as well as promoting library services to clinicians with multiple job responsibilities. Lessons learned from three professional librarians, utilization data from participating institutions, and customer satisfaction survey results will be reported.

290

The Library at the Point of Care: Integrated Resources and Instruction in the Third-Year Medical School Curriculum Δ

Whitney Townsend, Liaison Services Librarian and Coordinator, Health Sciences Executive Research Service; **Mark P. MacEachern,** Liaison Services Librarian; **Irina Zeylikovich,** University Library Associate; Taubman Health Sciences Library, University of Michigan–Ann Arbor

Objectives: To demonstrate the integration of online point-of-care resources into third-year medical student clerkship rotations at a large academic health system.

Methods: One of the most pressing challenges clinicians face is effectively and appropriately utilizing online information resources at the point of care. The third-year medical school curriculum is a prime place to teach tomorrow's physicians to incorporate library resources into their workflow as they begin their clinical clerkship rotations. This presentation will provide an overview of the ways librarians integrate instruction and online resources into third-year medical student clerkship experiences in a large academic health system. Methods include: hands-on instruction during pre-clerkship orientation, targeted hands-on instruction co-taught with clinical faculty during two different clerkship rotations, and utilization of the medical school's online course management system to supply targeted point-of-care resources and relevant online instruction to designated clerkship rotations.

294

The Bioconnector

Bart Ragon, Associate Director, Knowledge Integration, Research, and Technology; **Andrea Horne,** Research and Data Services Manager; Claude Moore Health Sciences Library, University of Virginia–Charlottesville

Objectives: The health sciences library, bioinformatics core, and division of biomedical informatics have formed a unique partnership to meet the challenge of providing research support services in today's academic environment. The site, dubbed Bioconnector, is more than a collaboration space or web portal and breaks down the barriers to research support services that are artificially created by organizational and physical structures.

Methods: The Bioconnector is a conduit where researchers receive concierge-type support connecting them quickly to the tools and resources they need. It fosters collaboration and discovery by seamlessly providing services from each of its three partners: The bioinformatics core offers expert consulting, data analysis, visualization, and experimental design for large-scale genomic studies; the division of biomedical informatics provides support for health informatics; and the health sciences library provides technology-enabled collaborative workspaces, telepresence and videoconferencing, data management plan consultation, biomedical database training, and connections with ancillary university research services. The Bioconnector unifies all aspects of analytics, informatics, and information services, providing an exciting and unique infrastructure for research support across the biological and health sciences.

298

Project SHARE: Building Community Health Advocates

Anna Tatro, Outreach Librarian, Liaison and Outreach Services; **M. J. Tooey, AHIP, FMLA,** Associate Vice President, Academic Affairs, and, Executive Director; **Alexa Mayo, AHIP,** Associate Director, Services; Health Sciences and Human Services Library, University of Maryland–Baltimore

Objectives: The objective of the program is to create a unique and comprehensive program addressing problems and solutions surrounding health disparities and to engage the students as health advocates in their school and communities.

Methods: After receiving a grant from the National Library of Medicine, medical librarians began a three-year project to design a curriculum to be used by community-academic partnerships to build training programs to reduce health disparities. Working as partners with a local medical arts high school, librarians recruited twelve students. Librarians created and delivered instructional sessions on topics aimed to teach the students about aspects of solving the problem of health disparities, including health literacy, locating reliable health information, outreach, and navigation of the health care system. This innovative program goes beyond training high school students as community health workers and expands their role to community health advocates in a library-led educational and outreach training initiative. The curriculum emphasizes the power of information to combat health disparities and promotes self-reliance and community advocacy.

Results: In July 2012, the first cohort completed the 154-hour program. The efficacy of the curriculum, based on the results of a web-based pre- and post-test was analyzed, showing improvement in most areas. These results were applied to the curriculum for enhancement. In October 2012, the second cohort began the 154-hour program. A flexible, interactive, student-driven curriculum engages students in the program. All students accepted into the program remain committed and enthusiastic. Communication among the students, parents, Vivien T. Thomas Medical Arts Academy (VTTMAA) school administrators, and librarians is effective. A monthly SHARE newsletter is sent to parents and an active advisory board consists of program staff, school adminis-

trators, select university staff, and SHARE parents. A cell phone purchased for the program is used by staff to text students with updates and reminders.

302

Expanding the Interlibrary Loan World to Obtain More Resources for Our Users: Documenting the Contributions of Nonmedical Academic Libraries Δ

Paul Burton Drake, Assistant Professor and User Services and Document Delivery Librarian, Robert F. Kennedy Memorial Library, University of Guam, Mangilao, Guam

Objectives: A previous study analyzed the contributions of one nonmedical academic library in the National Network of Libraries of Medicine (NN/LM). This paper aims to compare similar member institutions to determine whether a contributions pattern exists. Research questions:

- What are the similar nonmedical institutions?
- What do they contribute to the network's resource sharing system (e.g., DOCLINE)?

Methods: An investigation of NN/LM membership and examination of institutional websites identified nonmedical academic libraries in January 2012. These libraries were asked to contribute identical system-generated resource sharing lending reports for the January-December 2011 statistical period. A subject analysis was conducted of the journal titles supplied by the library to the network.

Results: Results of the analysis show that nonmedical academic institutions contribute to networks in both medical and nonmedical information sources, with nearly 50% of filled loan requests in nonmedical subject journals. It documented the contributions of these near-peer institutions and demonstrated the need to include them in collaborative networking. Findings are useful for librarians and network administrators who seek to develop and maintain dynamic network organizations.

Conclusions: This study demonstrates that the nonmedical academic library community is underrepresented in NN/LM, with 80 members out of more than 6,000 involved. The tabulation of DOCLINE contributions illustrates that these libraries contribute more than they receive in resource sharing. The subject analysis reflects a significant contribution, almost half, from nonmedical information sources and demonstrates a need for nonmedical resources by the participants of the medical network.

306

A Member of the Team: One Librarian's Role in Developing a Consensus Statement

Alicia A. Livinski, Informationist and Biomedical Librarian, NIH Library, National Institutes of Health, Bethesda, MD

Objectives: In 2008, the American College of Chest Physician's (ACCP) published a series of 5 articles on definitive care for the critically ill during a disaster. This series was amongst the first to address the complex and emotionally charged issue of providing care when not everyone can be cared for during a disaster. In 2011, work began to expand and update.

Methods: A librarian was included early in the process to outline librarian responsibilities and work with the executive committee as tasks, timelines, topic editors and experts were identified. Twelve topic groups are established to address a specific topic (e.g., ethics, legal, special populations) with experts representative of multiple fields comprising each topic group. Each topic group member is required to complete an online patient/problem, intervention, comparison, outcome (PICO) course developed by ACCP. A preliminary search of the literature in PubMed was conducted to provide each topic group with some initial background information to assist in PICO question development. Each topic group may conduct its own searches, request the head librarian to search for them, or work with their institution's librarian; however, all topic groups are required to send the head librarian all search strategies used for cataloging and assist in writing of the methods sections.

Results: Literature searches were conducted throughout 2012 with the majority completed in November and December. Search terms were suggested by the topic team members and combined with the terms selected by the librarian. A combination of Medical Subject Headings (MeSH) and keywords was needed to accurately describe each concept searched. As each set of searches addressed a common theme, disasters, one search hedge was used throughout the process. Additionally, when the same concepts were searched across topic teams (e.g., surge capacity), the same search hedges were reused. Each PICO question was searched separately when feasible and exported to EndNote. Each set of results was tagged with a keyword and filed in a group. If possible, a separate annotated bibliography with a uniform resource locator (URL) to the PubMed record was generated and sent to the topic team leaders. If one large set of results was sent for review, duplicates were removed and the annotated bibliography with URL sent. Updates to the search strategies conducted throughout 2012 have not yet been updated to identify recently published research.

Conclusions: The topic teams will be reviewing the results of the published literature in early 2013, and then consensus gathering will be completed. Publication is anticipated in late 2013 as a complete journal supplement. This experience has been very educational and an excellent learning experience for the librarian involved.

Poster Session 2

Monday, May 6, 1:30 p.m.–2:30 p.m.

HCC, Level Two, Exhibit Hall

2

Comparing Experiences of Participants Taking In-Person versus Online Classes Δ

John Bramble, Technology Coordinator, Spencer S. Eccles Health Sciences Library, University of Utah–Salt lake city; **Betsy Kelly,** Associate Director, Health Information Resources and Assessment, and Evaluation Coordinator, National Network of Libraries of Medicine, MidContinental Region, Becker Medical Library, School of Medicine, Washington University in St. Louis, St. Louis, MO; **Marty Magee**, Nebraska/Education Coordinator, McGoogan Library of Medicine, University of Nebraska Medical Center–Omaha; **Sharon Dennis,** Assistant Director, National Library of Medicine Training Center, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

Objectives: Are student experiences significantly more positive for classes that are taught in-person or taught online, or are there only negligible differences? Using the MLA class evaluation form, we will analyze the differences in responses from participants who have taken classes either in-person or online.

Methods: Participant responses from MLA class evaluation forms will be analyzed. Both in-person and online classes use this form, which includes both closed- and open-ended questions about various aspects of the class, instruction materials, learning environment, and instructor. Responses to the closed-ended questions will be compiled. Responses to open-ended questions will be coded for statements that were generally positive, negative, or neutral in nature. Differences in responses will be compared for evaluations of in-person versus online methods.

6

2012 Snapshot of US Library Support of Current and Future Public Health Professionals Δ

Nancy Schaefer, AHIP, Associate University Librarian, Health Science Center Libraries, University of Florida–Gainesville

Objectives: Since Partners in Information Access for the Public Health Workforce was formed (1998) to improve access to and promote competent use of quality information resources, several dedicated public health libraries have closed and talk of a national public health library has circulated. This study describes trends in a sample of libraries that specifically support public health education, research, and practice in the United States.

Methods: Eight libraries supporting public health education, research and practice were selected for visits: two general libraries at private colleges with public health programs, two dedicated or stand-alone public health libraries at state universities, two state public health agency libraries, one regional branch of a federal public health agency library system, and one central federal public health agency library. Institutional review board approval was obtained for instruments to elicit information from library staff and users on the collections, services, policies, and organizational role of the sample libraries. The eight libraries were visited between May and November 2012. Information was also gathered from public health librarians from other organizations via focus groups and MLA's Public Health/Health Administration Section's distribution list and blog. Data from all sources were analyzed for recurring themes.

Results: Comparison of notes and transcriptions from the in-person interviews and questionnaires yielded some common trends and some unique characteristics among the libraries. Public health users universally want access to journal articles and government documents on public health issues, preferably electronically. All libraries—no matter the size—had well-established, frequently-used interlibrary loan (ILL) systems. Other appreciated public health library services ranged from simple reference to performing searches and teaching resources and search tips to conducting or teaching systematic reviews. Maps, videos, and health education teaching kits and the Code of Federal Regulations seem to be well-used by environmental and policy workers and health educators within the public health system.

Conclusions: While the sample libraries differ in services and collections, each reflects the distinctive needs of its user groups and parent organization. A strong advocate high in the power structure of the parent organization seems to tremendously enhance the odds of an independent public health library surviving and thriving.

10

A Librarian's Complementary Role in an Accreditation Council for Graduate Medical Education Accreditation Site Visit

Tara Brigham, Librarian, Winn-Dixie Foundation Medical Library, Mayo Clinic, Jacksonville, FL

Objectives: To demonstrate how a librarian can assist graduate medical education coordinators or program directors with Accreditation Council for Graduate Medical Education (ACGME) accreditation requirements.

Methods: The ACGME requires graduate medical education (GME) program directors or coordinators to provide information about faculty and resident scholarly activity for each program on an annually or biannually basis. This information is entered into the online ACMGE Accreditation Data System (webADS). Incomplete or inaccurate information can be a contributing factor to a red flag during an ACGME review. Since faculty or residents don't always keep track of this type of information or don't respond in a timely manner, program coordinators, and directors have often took it upon themselves to search for this information elsewhere with less than favorable results. A librarian at a small academic medical library worked with a group of graduate medical education program coordinators to develop a list of what information the librarian could provide.

Results: The librarian could compile most if not all of the scholarly information required. The information required consists of the PMID numbers of articles authored, the number of books or book chapters authored, the number of conference presentations, and the number of research grants. The librarian and education coordinators also found it helpful to develop a Microsoft Excel spreadsheet where all this information can be entered and tracked regularly. Many of the education coordinators appreciate this assistance because searching for this type of information is not their expertise. Nine out of fourteen program coordinators now ask the librarian to provide scholarly information for the faculty and residents for the programs they oversee.

Conclusions: Librarians can provide valuable assistance to graduate medical education program coordinators and directors with important information required by ACGME.

14

A Novel Approach to Community Faculty Outreach: The Charles Drew University Health Sciences Library Pilot Δ

Darlene Parker Kelly, Director, Health Sciences Library and Learning Resource Center, Charles R. Drew University, Los Angeles, CA

Objectives: The goals of the project were to: (1) teach and promote the use of the National Library of Medicine (NLM) resources, (2) develop a curriculum that will demonstrate the use of NLM's resources, and (3) discuss how NLM's resources can be used by community faculty and their partners.
Methods: The study design was exploratory, based on a needs assessment from the group of community participants. Members were interested in becoming faculty but lacked some knowledge of how to find research articles on their topics of interest. The sample size was thirteen, with two of the community participants taking on the role of facilitators and working weekly with the library director. Discussions on how to implement workshops were vetted with the facilitators, and collaboratively decisions were made on how to deliver the information sessions.
Results: Participants were not aware of all of the health information resources that were available from NLM. There were a number of thematic responses where participants indicated that the training sessions were extremely beneficial to the understanding of how to conduct research and to search for evidence to support the research.
Conclusions: Community faculty demonstrated knowledge and the abilities to use NLM's resources and integrate the use of these resources into their lectures, community engagement activities, and their scholarly communications.

18
A Study of Librarian Involvement in Locally Created Systematic Reviews Δ
Whitney Townsend, Liaison Services Librarian and Coordinator, Health Sciences Executive Research Service; **Mark P. MacEachern,** Liaison Services Librarian; **Irina Zeylikovich,** University Library Associate; Taubman Health Science Library, University of Michigan–Ann Arbor
Objectives: To analyze librarian involvement in the systematic review and meta-analysis publishing activities of an academic health system.
Methods: In addition to their role in searching and instructing users on finding and using evidence resources, librarians also have the opportunity to be intimately involved in the process of creating the evidence-based literature that clinicians rely on to inform their practices. The Institute of Medicine and the Agency for Healthcare Research and Quality both recommend utilizing a health sciences librarian for the literature search component when conducting systematic reviews. Despite this recommendation, it is hypothesized that few non-Cochrane systematic review teams include a librarian in the development of their literature search strategies. This poster will analyze the systematic review publishing activities at a large academic health system over the past ten years in order to demonstrate historical and current librarian involvement and to systematically identify potential partners and inform the development of future library services.

22
Addictions Information: How Do We Verify the Plethora of Websites for Veracity and Quality?
Christine Goodair, National and International Programme Co-ordinator, International Centre for Drug Policy, St. George's Medical School, University of London, London, United Kingdom; **Monica Reynaudo,** Researcher, Gruppo Abele Onlus, Turin, Italy; **Daniela Zardo,** Manager, Centro Studi, Documentazione e Ricerche, Gruppo Abele Onlus, Turin, Italy
Objectives: The proliferation of addiction information websites raises questions about quality and veracity of content and concerns about the availability of substances for purchases from Internet websites. The work undertaken by a European network of information professionals to evaluate over 1,000 sites from 2002–2007 will be described. Concerns about the health risks of purchasing substances over the Internet will be discussed.
Methods: The poster describes proliferation of websites in Europe providing information on addictions and how websites were evaluated through the Gateway Project against professional cataloguing and Gateway standards applied in Europe. These criteria were agreed by participants. A multilingual taxonomy was developed for the project to ensure consistency in approach for classifying the websites. The aim of the project was to create a quality controlled online database of addiction websites across Europe. The main output was a database describing the content of over 1,000 sites from 27 countries, searchable in 17 languages via a subject-oriented, country, and language retrieval system. Looking forward, the second element of the poster considers the emerging risks linked to accessibility of substances available over the Internet and refers to work being undertaken to monitor this. Sustainability of maintaining such databases will also be considered.

26
Adventures in Clinical Surgical Librarianship: A Five-Year Retrospective Analysis Δ
Marina F. Englesakis, Information Specialist, Library and Information Services, University Health Network, Toronto, ON, Canada
Objectives:
- Analysis of the impact of a clinical surgical librarian's (CSL's) participation in general surgery quality of care rounds, and the affiliated department of general surgery, in terms of volume of searches, types of searches, and top topics searched
- Lessons learnt by the clinical surgical librarian over the last five years

Methods: The CSL gathered and analyzed detailed statistics on the types of searches, topics, and volume of searches conducted on behalf of the department of general surgery and the general surgery quality of care rounds, over the last five years. A comparison of statistics prior to the inclusion of the CSL service is included.
Results: The utilization of the CSL outside of the CSL's services increased upon inclusion in the general surgery quality of care rounds, both in terms of number of searches requested and in time spent searching. An average of 24 CSL searches per years were addressed during the 5-year period, while an all-time high number of regular searches, 188, were requested in 2009 alone. In years previous to the CSL participation, the number of regular search requests from general surgery averaged only 12.5 searches annually. Types of top topic searches: The most frequently requested type of clinical question was effectiveness, followed by background, etiology, and prognosis.
Conclusions: Including a CSL in the general surgery quality of care rounds has increased the familiarity, visibility, and utilization of the CSL within the general surgery department and the residents and fellows with in it. This ongoing relationship has proved that increased awareness of CSL and information specialist services leads to increased general librarian utilization. Lessons learned include:
- Learn surgical jargon—fast!
- Search more broadly than the question being asked may require.
- Search a variety of resources.

- Be prepared: The visuals (photos or videorecordings) of surgical procedures can be upsetting.
- You are contributing to the improvement of patient care.

30

All It Takes Is One: Single-Session Data Literacy Instruction

Lisa Federer, AHIP, Research Informationist, Louise M. Darling Biomedical Library, University of California–Los Angeles

Objectives: Major funders now require researchers to submit a data management plan, but data management skills are rarely taught in graduate programs. Libraries can fill this gap by providing data literacy instruction. Single session workshops can increase awareness of good data practices and provide researchers with the basics to help them get started managing their data with minimal time commitment.

Methods: Though many publicly available data literacy curricula exist, most involve multiple sessions. A review of the relevant literature and existing curricula was conducted and a list of core competencies for data literacy compiled. The list was narrowed down to key competencies that could be covered in a one-hour, one-off data literacy workshop. The session will be promoted in the library and in relevant departments, and enrollment will be by RSVP. Pre- and post-session assessments measuring knowledge and attitudes about data management helped gauged the effectiveness of the session. Attendees were also asked for feedback about future, topic-focused sessions.

Results: Compared to the pre-test, post-class assessments showed significant improvements in attendees' knowledge as well as their self-reported attitudes about data management and sharing. The general nature of the instruction also encouraged a wide variety of attendees to participate, from students to experienced researchers, from a variety of departments. Suggestions about more specific topics from attendees will help guide future instructional efforts.

Conclusions: Though data literacy and data management are complex and often specific to a specific research discipline, a general, single-session data literacy course can be effective in teaching basic skills, as well as increasing awareness of the library as a place to seek help with data-related questions.

38

Are the Words "Randomized Controlled Trial" Identified Accurately in the Titles of Their Articles?

Kozo Takagi, Manager, Section of Collection Management, Bibliographic Services Division; **Atsutake Nozoe,** Professor Emeritus; Japan Medical Abstracts Society, Tokyo, Japan

Objectives: The Consolidated Standards of Reporting Trials (CONSORT) 2010 statement demands that a study initially identify that it is a randomized controlled trial by the description of identification as a randomized trial in the title. If the title of an article is so, everybody understands that the research is conducted by an RCT. Furthermore, when an article is indexed in a medical literature database, it becomes easier to tag of publication type or study design, and it is useful for searching articles with high-level evidence. This study investigates whether the words "randomized controlled trial" are identified accurately in the titles of their articles.

Methods: The samples of literatures searches for our study covering the period from 1983 to 2011 were conducted on the Ichushi-Web version 5 (Japanese medical literature database) for the articles published in Japan and on PubMed for the articles published in the United States. First, it was investigated what the total number of articles that identified their publication types or study designs as RCTs were. Next, it was investigated what the number of articles that contained "random," etc., in their titles in the first search results. The search terms for the articles published in Japan were "musakui" (random in Japanese), "randamu" (random in katakana), "random," or "RCT" as the title and "randomized controlled trial" as study design. The search terms for the articles published in the United States were "random*" or "RCT" as the title and "randomized controlled trial" as publication type and "United States" as place of publication.

Results: The samples of literatures were 12,884 articles published in Japan with RCT study design tags and 148,219 articles published in the United States with RCT publication type tags. There were 1,261 articles published in Japan with RCT study design tags and titles containing RCT-related terms. Also, there were 30,547 articles published in the United States with RCT publication type tags and titles containing RCT-related terms. The temporal changes of the ratios of the articles with titles containing RCT-related terms in the articles were compared with RCT study design or publication type tags between Japan and the United States. There were 247 articles with RCT study design tags in 1983 in Japan; 5.3% of 247 articles contained RCT-related terms in their titles. There were 928 articles with RCT study design tags in 2011 in Japan; 12.7% of 928 articles contained RCT-related terms in their titles. In a similar way, there were 1,232 articles with RCT publication type tags in 1983 in the United States; 13.9% of 1,232 articles contained RCT-related terms in their titles. There were 9,113 articles with RCT publication type tags in 2011 in the United States; 28.7% of 9,113 articles contained RCT-related terms in their titles.

Conclusions: The ratios of the articles with titles containing RCT-related terms in the articles with RCT study design or publication type tags in Japan and the United States had increased. However, the ratio was 28.7% and did not come up to 30% even in the United States in 2011. The ratio in Japan in 2011 was 12.7%, and it was less than half of the ratio in the United States in the same year. It was found that there were still few articles initially identified as RCTs. The reporting articles of RCTs did not comply fully with the CONSORT 2010 statements and demand further improvement.

42

Benchmarking Canadian Health Facility Libraries Δ

Ada M. Ducas, Head, Neil John Maclean Health Sciences Library; **Kerry Macdonald,** Hospital Librarian, Seven Oaks General Hospital Library; **Lisa Demczuk, AHIP,** Hospital Librarian, Victoria General Hospital Library; University of Manitoba–Winnipeg, Canada

Objectives: To conduct a benchmarking study of Canadian hospital libraries to provide librarians data to support them in the management of libraries. The aim is to determine:

- status of hospital libraries in Canada
- how many facilities have libraries and/or access to knowledge-based information
- existing consortial relationships, university affiliations, and networks
- if libraries meet the 2006 Canadian Health Libraries Association/Association des bibliothèques de la santé du Canada (CHLA/ABSC) standards

Methods: This study will survey Canadian health facility libraries, excluding personal care homes, research centers, industry organizations, and associations. A pilot survey was sent out to representative libraries in summer 2012, with the final survey

sent out in fall 2012. The survey was made available in French and English, and only one response per institution was requested. The survey was constructed to gather data on institutional profile, administration, staffing, resources, environment, and security. The questions were mapped to the 2006 *CHLA/ABSC Standards for Library and Information Services in Canadian Healthcare Facilities.* Data analysis was conducted with assistance from the Biostatistical Advisory Service at the University of Manitoba. The study proposal was approved by the University of Manitoba Health Research Ethics Board.
Results: We received completed survey responses from 76 individual Canadian health facility libraries, representing all regions of Canada. The majority of responses were from libraries operating as a discrete department with their own budgets in an acute care hospital. The majority of the libraries reported to an education services department. The survey collected specific data on overall library budgets, collection spending, resource selection, and service provision. Of the libraries surveyed, 46 % reported a steady-state financial budget and 20 % saw a budget increase. For the majority of respondents, literature search requests increased, as did in-person library visits. Over 60% of respondents reported an increase in the purchase of electronic books and serials in the past 5 years.
Conclusions: The results indicate that electronic resource purchasing is moving at a rapid pace, with the increase in e-book acquisition almost matching that of e-journals. The value of the library as place has not diminished as demonstrated by an increase in library visits for many respondents. Library budgets remained steady or increased despite the current economic climate. Almost 70% of respondents reported being satisfied with their libraries and services they provide. The results of the survey provide a snapshot of the current status of health care facility libraries in Canada, and the data gathered will be useful to support decision making by library administrators.

46
Beyond Usability Studies: Reengineering the Library's Website Incorporating Design Standards and User Preferences Δ
Mohammed Mohiuddin, Administrator, Network and Systems; **Haldor Heimer,** Serials and Systems Librarian; **Diana J. Cunningham, AHIP,** Associate Dean and Director; Health Sciences Library, New York Medical College–Valhalla
Objectives: To determine the elements that users consider most important to a website, with the ultimate goal of a complete reengineering of the health sciences library website starting from a blank slate.
Methods: Volunteers from the professional library staff solicited along with internal members of the web committee became an ad hoc working group. The project redevelopment plan was discussed, and nine members agreed to schedule a series of fifteen- to thirty-minute targeted interviews with students, faculty, and researchers at an academic institution. Detailed analysis of the interview data focused on heuristic design, embedded cognitive aspects, and aesthetic sense. After this analysis, the reengineering process included mock-ups of the proposed library website, usability testing, and then a final design. Final design feedback was solicited from initial interviewees, library staff, and library committee members.
Results: Forty favorite websites of our users were selected. We analyzed the content and theme of each site and picked most common elements and redesigned health sciences library's website. We again did the usability study going back to our users with our new design and incorporated ten popular recommendations.
Conclusions: Heuristics, aesthetics, navigability, and user inputs will make the website more user friendly.

50
Building a Collaborative Interdependency with a College of Medicine via an Active Learning Center
Mary L. Ryan, AHIP, FMLA, Associate Vice Chancellor, Student Services, and Director; **Janice K. Hart,** Associate Director; **Susan C. Steelman,** Associate Professor and Head, Education and Reference Services; **Daphne N. Hyatt,** Head, Collection Management; UAMS Library, University of Arkansas for Medical Sciences–Little Rock
Objectives: This poster will describe a project to build an interdependency between the library and our institution's college of medicine (COM) by offering prime space in the library to become an active learning center (ALC).
Methods: The library has long had a good working relationship with our institution's COM. When it became evident that the COM would be incorporating team-based learning for the fall 2012, the library began discussing how to help. The library wanted to remain a destination for the students and thus offered the first floor of the library to become an ALC. A description of the process, including weeding (5,000+ reference and regular journals), a shift of the entire print collection (140,000 volumes), and major renovations of 3 floors of the library will be shared. Design of the ALC and challenges faced and conquered will be discussed.
Results: The library's relationship with the COM is now stronger, and the ALC is heavily used.
Conclusions: Establishing the ALC in the library has given the library a stronger role in meeting the needs of the institution.

54
Can a Clinical Query Search Protocol Be Simplified? Δ
Elaine Garrett, Reader Services Librarian, RCOG Library, Royal College of Obstetricians and Gynaecologists, London, United Kingdom
Objectives: To identify which of three specific resources searched when answering clinical queries yielded the references included in the final response, to assess the extent of overlap between these resources, and to determine if the clinical query search protocol can be simplified. The resources considered are the Cochrane Library, TRIP database, and Evidence in Health and Social Care database.
Methods: The references cited in all clinical queries answered over a six-month period (January to July 2012) will be reviewed to identify which resources they were retrieved from. Each component database of the Cochrane Library was considered separately, as they can be easily searched separately and contain different types of publication. Inclusion was determined from either notes made at the time of searching or by a rerun of the recorded search strategy within a week. The type of publication will be categorized as a systematic review, guideline, trial, and so on, as this affects the resources in which it may be included. The extent of overlap and unique yield from each resource will be measured, and conclusions will be drawn about the need to continue to search all three resources.
Results: Thirty-four queries were answered, citing 132 references. Each answer cited an average of 3.9 references, with a range of 1 to 9 references. The majority of references were to guidelines (63), followed by case reports/case series (32), then systematic

reviews (16). Seventy-four (56%) of the references were identified from the Cochrane Library, TRIP, or NHS Evidence. Fifty (38%) were identified in just one of these resources; 21 (16%) from 2 different resources (19 (14%) of references were identified in both TRIP and NHS Evidence); and just 3 (2%) from all 3 resources. Forty-eight (36%) of the references were found from searching TRIP, 34 (26%) using NHS Evidence, and 19 (14%) the Cochrane Library. Twenty-five (19%) of the references were unique to TRIP, 14 (11%) to the Cochrane Library, and 11 (8%) to NHS Evidence.
Conclusion: Only 24 references (18%), 19 guidelines, and 5 systematic reviews were identified from more than one of these resources, and each resource provided between 8% and 19% of unique references. Most of the overlap is between TRIP and NHS Evidence. The effect on query conclusions of excluding references found using NHS Evidence would need to be fully assessed before deciding to exclude NHS Evidence from the search protocol.

58

Comparing Completion Rates: Blended versus Asynchronous Classes Δ

Rebecca Brown, Trainer and Curriculum and Content Specialist, National Library of Medicine Training Center; **Sharon Dennis,** Assistant Director, National Library of Medicine Training Center; Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

Objectives: Determine if offering continuing education coursework in a blended class format has a greater completion rate than offering coursework in an asynchronous only class format. Will a greater number of enrollees complete the class when compared to an asynchronous only class? For the purposes of our study, blended is defined as: a combination of synchronous, online sessions along with an in-person component.
Methods: We will compare completion numbers from data gathered from actual classes taught to findings published in the literature. Setting: Over the course of the past 5 years, we have developed and offered a number of online only classes with over 300 participants. The coursework has been delivered using a combination of Adobe Connect web conferencing software and Moodle course management system. Beginning in April 2012, we added an in-person component to the online classes. Population: Most of the courses have been offered to health sciences librarians throughout the United States. Health sciences librarians are the main target audience; however, anyone can enroll in the classes.
Results: Looking at a blended class offered between January 2012 and October 2012, 228 people enrolled in the 4 session class. Out of the 228, 7 students dropped out before the class began, 26 students (12%) dropped out of the class before completion, and 195 students (88%) completed all 4 sessions. The authors then looked at an asynchronous class that they offered 4 times between October 2008 and November 2010. During that time period, a total of 149 people registered for the 6-session class. Out of the 149 people enrolled, 87 people (58%) completed the class and 62 people did not complete the class. This translates to a 42% dropout rate. A review of the literature found that most programs reported rates similar to those experienced by the authors. Between 1996 and 2001, asynchronous completion rates ranged from 54%–70%, whereas completion rates for face-to-face or blended classes ranged from 85%–96%. All of the programs we looked at took measures to increase completion rates by including additional online interactivity with the instructor and peers and in one case offering a "concierge service."
Conclusions: Our research aligns with other research in the field, which shows that students who take a course in a blended environment benefit from face-to-face communication opportunities with the instructor as well as with their peers and thus have a higher completion rate than those who take a class in an asynchronous online-only environment.

62

Connecting Content and Communities: A Global Snapshot of the State of Digital Collections in the Health Sciences Δ

Keith Pickett, Research Support and Education Librarian; **Maureen M. Knapp, AHIP,** Research Support and Education Librarian; Rudolph Matas Library of the Health Sciences, Tulane University, New Orleans, LA

Objectives: This descriptive survey quantifies the number of health sciences libraries (HSLs) involved in digital projects, the type of projects being digitized, the software utilized, and the average number of items per collection in order to create an international snapshot of digitization, examining the number, type, size, and impact of digital collections in HSLs on a global level.
Methods: Generate an international list of HSLs using the most recent Annual Statistics of Medical School Libraries in the United States and Canada from the Association of Academic Health Sciences Libraries (AAHSL) as well as libraries listed in the world medical library associations on MLANET (www.mlanet.org/resources/allied_lnks.html#4) Survey library websites identified in step 1 for evidence of the following:

- What type of digital collections does the library have?
- Is there an institutional depository? Separate from historical digital collections?
- What kind of access is offered (open, closed limited to institution, or by request)?
- What database software is used to provide the digital collection?
- What type of library (academic, hospital, other)?
- Are there any quantitative measures of the impact of the collection?

Results: Two hundred twenty-nine health sciences libraries worldwide were included in this analysis. Of the libraries surveyed, 68% (n=157) had digital collections, with an average of 1530.91 items in each collection; 49% (n=112) also had institutional repositories. In most cases (n=147), these collections were publicly available. The predominant platforms for disseminating these digital collections were CONTENTdm and library web pages. Only 46% (n=77) of these collections were managed by the health sciences library itself.
Conclusions: A large number of health sciences libraries now offer digital collections to both their users and the general public.

70

Creating a Non-Tenure-Track Option: One Library's Experience

Stephen Maher, Collection Development Librarian; **Carlita Anglin,** Family Health Librarian, Hassenfeld Center Patient Library; **Aileen McCrillis,** Research Librarian and User Experience Librarian; **Richard McGowan,** Research Librarian; NYU Health Sciences Libraries, New York University Langone Medical Center–New York; **Emily G. Morton-Owens,** Library Applications and Systems Manager, Information Technology, Seattle Public Library, Seattle, WA; **Neil Romanosky,** Assistant

Director, Administration, NYU Health Sciences Libraries, New York University–New York
Objectives: The issue of tenure and faculty appointments at academic medical libraries varies among institutions. In most cases, the library's policy matches its medical institution's policies on tenure for its constituent academic departments. The poster recounts one library's effort to align its policy with that of its institution through the creation of a non-tenure track for medical library faculty.
Methods: Faculty member volunteers formed an ad hoc committee tasked with writing a proposal for the creation of a non-tenure-track option for medical library faculty. The committee submitted the proposal to the academic medical institution's faculty governance. The committee researched Association of Academic Health Sciences Libraries (AAHSL) statistics on tenure and faculty appointments across academic medical libraries nationwide and reviewed their institution's tenure and non-tenure-track policies. In the spirit of transparency, the committee held small-group discussions with medical institution colleagues as well as librarians from within the larger academic institution to garner support for the proposal and to assuage concerns. Although the proposal was unanimously supported by medical library faculty librarians, the committee met challenges throughout the more than year-long process.
Results: As of December 2012, the university provost approved an addendum to the policies and procedures for appointment, promotion, and tenure at the school of medicine, leading to the creation of a nontenure track option for faculty of the department of the medical library. Arriving at this conclusion required several meetings with members of the school of medicine's faculty council and the university's faculty senators council. In these meetings as well as conversations with individual members of these groups, the committee had to explain, and at times defend, the role of librarianship in terms of scholarship and in practice. Much of the opposition came from faculty in other disciplines and other New York University libraries who viewed the nontenure track option as a threat to their faculty status.
Conclusions: The effort to create a nontenure track introduced the committee and medical library faculty to a greater understanding of the decision making processes within the school of medicine and university. While the committee was satisfied with the result, the process took longer (two years total) than the committee anticipated. The challenges with explaining librarianship to faculty from other disciplines reinforce many of the barriers librarians continue to face in medicine and academia. However, the process provided the committee with new ways of translating achievement in the library profession in terms scientific disciplines may appreciate.

74

Cultivating Faculty's Role Modeling for Medical Students through a Library Faculty Development Program

Misa Mi, AHIP, Associate Professor and Medical Librarian; **Stephanie M. Swanberg, AHIP,** Assistant Professor and Medical Librarian; **Nancy Bulgarelli,** Director; Medical Library, William Beaumont School of Medicine, Oakland University, Rochester, MI
Objectives: Medical librarians have used evidence-based medicine as an approach to developing and integrating information mastery instruction into the coursework of the capstone project, a longitudinal program in a new medical school. The goal of the instruction is to promote competence-based learning and develop students' skills in locating, accessing, and using quality information to successfully complete their faculty-mentored scholarly project.
Methods: An information mastery training program, parallel to that taught in the capstone project, has been developed and implemented as part of the school's faculty development efforts at the four locations. The purpose of the program is threefold: (1) increasing faculty's awareness and utilization of information resources in developing and implementing an innovative and integrated curriculum; (2) promoting the faculty's mentor role in reinforcing and role modeling good habits in using credible, scholarly information in both preclinical or clinical settings; and (3) enhancing faculty's information skills for lifelong, self-directed learning. In addition, the program allows clinical faculty to earn continuing medical education (CME) credits for their participation. This poster will discuss the development of the training program, challenges in implementing the training program at multiple locations, and a future plan for overcoming these challenges.

78

Development of a Tool to Measure the Cognitive Labor of Research in a Health Sciences and Consumer Health Library: Adaptation of the "Medical Decision-Making" Tool Δ

Karen L. Keller, Director, Library Services; **Dena F. Hanson, AHIP,** Librarian; **Lynne Harmon,** Library Assistant; Edwin G. Schwarz Health Sciences Library; **Barbara Steffensen,** Family Librarian, Matustik Family Library; Cook Children's Medical Center, Fort Worth, TX
Objectives: A need for a tool to use in nonacademic health sciences libraries to qualitatively and quantitatively demonstrate the value of research performed by health sciences and consumer libraries was identified. It would demonstrate the worth of the expertise and provide a return on investment (ROI) of the library and its professional staff to administrators and chief finance officers.
Methods: Our library has tracked searches in "how many searches" since its conception in 1991. The librarians had anecdotally noted that the time to do many of the searches and the complexity of the searches had been steadily increasing. In February 2012, an informal survey was sent via the MEDLIB-L email discussion list to solicit forms or methods currently in use to track research being done in health sciences libraries. Thirteen responses were received. Five responses from academic libraries said they were currently using the Reference Assessment Data (READ) Scale. The READ Scale was evaluated and determined to be too general, and it did not capture complexity or time. Searches of the literature failed to reveal other tools. Medical tools were reviews, including relative value units (RVUs) or acuity rating scales. A decision was made to adapt the "Medical Decision-Making" tool.

82

Diabetes Information Outreach to the Latino/Hispanic Population of Pomona, California Δ

Patricia Vader, Executive Director, University Library; **Frances Chu,** Associate Director, Reference and Outreach; Harriet K. and Philip Pumerantz Library, Western University of Health Sciences, Pomona, CA
Objectives: In 2011, the director of the academic library applied for and received an award from the National Library of Medicine (NLM) to fund a program to pilot an outreach program to the local minority community to raise awareness of MedlinePlus for diabetes information.

Methods: The partnership included the academic library, the public library, and two colleges within the university. The supervised students of the colleges designed and presented information on diabetes, created activity sheets for navigating MedlinePlus, and were present for help in the computer lab for the hands-on component. The academic library provided logistical support and training on Medline Plus, and the public library provided the location. Pre- and post-tests were completed by the attendees before and immediately after the presentations, and an evaluation form was given to the participants at the end of the hands-on portion of the program.
Results: Although the attendance was not high, 50% of the attendees were Hispanic, 25% were African American, and 10% were Asian. The evaluations showed improvement from pre- to post-presentation, and the feedback from the evaluation forms was mostly positive. The participants who had no computer skills were able to navigate the MedlinePlus website comfortably by the end of the four sessions, and most participants wanted the program to continue.
Conclusions: The major barriers encountered were related to the areas of advertising, day or time of the activity, and collaboration process. However, the academic librarians felt that the primary goal of raising awareness to the minority community to credible information about diabetes was achieved. Currently, the academic library, the public library, and the colleges are discussing the feasibility of continuing the outreach program.

90

Evidence-Based Emergency Management (EBEM) for University Safety: Development and Evaluation of a Novel Course in EBEM Δ

Robin Featherstone, Liaison Librarian (Medicine), Life Sciences Library, McGill University, Montreal, QC, Canada
Objectives: Using teaching methodologies from the field of evidence-based medicine (EBM), a course in evidence-based emergency management (EBEM) taught participants to develop answerable questions, locate best-available evidence, evaluate the literature, and use evidence to inform emergency management decisions. Course evaluations established overall satisfaction of participants, and a pretest/posttest assessment showed participants' improvement in locating and evaluating emergency management literature.
Methods: A pretest instrument administered through an online survey (LimeSurvey) initially measured participants' skills at locating and evaluating emergency management evidence. Participants were recruited from the university safety department at a major North American university. The course taught EBM concepts, adapted for the field of emergency management, and concluded with the establishment of a journal club. Following the course, participants completed a posttest assessment.
Results: Participants scored an average of 17 percentage points higher on their posttests than their pretests. The average pretest score was 59%, and the average post-test score was 76%. Participants expressed their satisfaction with the content of the program, and librarian instructors were invited back to offer a repeat session of the course to members of university safety who were unable to attend the first offering.
Conclusions: EBM teaching methodologies can be adapted for teaching emergency management professionals. Emergency managers learned valuable information seeking and evaluation skills, and academic librarian instructors and campus emergency managers developed mutually beneficial working relationships.

98

E-Resources and Statistics: Getting the Big Picture

Karen Yacobucci, Content Management Librarian; **Karen Hanson,** Knowledge Systems Librarian; **Stephen Maher,** Collection Development Librarian; **Stuart Spore,** Associate Director, Systems and Resources; NYU Health Sciences Libraries, New York University–New York
Objectives: Tracking the use of electronic journals has become an important method for libraries to demonstrate how they serve their user communities. This poster illustrates one library's approach for collecting and analyzing usage statistics for electronic journals and the challenges associated with it.
Methods: The library collects e-resource usage statistics from three primary sources, each providing different insight into how a resource is used. First, the OpenURL link resolver (SFX), which includes a web accessible reporting utility. Second, the web proxy server (EZProxy), which includes a web log function; data from this log are imported, compiled, and stored in a locally built data warehouse and results presented on a web-based dashboard. Finally, many publishers offer usage statistics. Some allow SUSHI harvesting of statistics in the standardized COUNTER report format. Others require manual download of COUNTER or non-COUNTER compliant reports. COUNTER statistics are loaded into Ex Libris UStat, which is designed for e-resource use analysis. Journals with good data samples from all three sources were analyzed to determine data overlap and how these might fit together to represent resource use.
Results: Each data source offers a different depiction of usage making it difficult to merge them together. Not only does the type of data collected vary per source, but so does the coverage. For example, while the EZProxy log provides the richest dataset in terms of user type and point of access, comparing the number of hits on EZProxy to those recorded by publishers show that an average of 17.5% of users' requests are being routed through the proxy server. Presumably the rest are accessing material while on-site and therefore do not need to be routed through the proxy server. SFX provides detailed information about the articles requested, which could be used for identifying trending articles. When compared with article downloads recorded by publishers, however, SFX captures less than 10% of these. Finally, while COUNTER records 100% of use for a single resource, it is not yet available for all resources, and where it is available, it is not necessarily harvestable, making the capture of monthly statistics potentially very cumbersome.
Conclusions: Although one set standard for statistical collection is something to be desired, the data from the current set of tools are not easily combined and are unlikely to provide an accurate and complete snapshot of how and which resources users want and use. It was determined that creating a method for improved statistical collection would be an ongoing project.

102

Evidence-Based Medicine (EBM) for Hematology Residents: Developing and Evaluating a New Curriculum in EBM for Specialty Residents Δ

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Objectives: A collaborative team of hospital librarians, academic medical librarians, a hematologist, and a family doctor developed a new curriculum to teach specialist residents principles of evidence-based medicine (EBM). The pilot program was offered to fourth- and fifth-year hematology residents at McGill University. Goals of the curriculum were that residents improved their EBM knowledge and skills, reported more EBM behaviors in their clinical practice, and their attitudes toward EBM improved. Once successfully implemented, an adapted program will be offered to surgical and gynecological specialty residency programs.
Methods: A pilot curriculum was delivered to eight hematology residents during the summer and fall of 2011. Three three-hour workshops and two journal clubs were supplemented by homework activities that utilized real clinical cases encountered by the residents. The curriculum was assessed with a pretest/posttest administration of the Fresno test. Hematology residents also completed a formative evaluation of the curriculum to assess their satisfaction with the program.
Results: Course evaluations were generally positive, but most residents expressed a desire to spend more time learning how to critically appraise different study types. The pretest and posttest Fresno scores showed only a slight improvement in the residents' EBM skills (average posttest scores were only 4.7% higher than pretest scores), but inconsistencies with the administration of the Fresno (some residents completed the pretest at home, while all residents completed their posttest in a controlled testing environment) could have accounted for lower posttest scores. For the adapted program, the teaching team will ensure testing conditions are equivalent for both the pretest and the posttest. Lessons learned from the pilot program informed the current undergraduate medicine EBM course and will influence modifications to residency EBM instruction at McGill.
Conclusions: A collaborative team of librarians and physicians successfully developed and administered an EBM curriculum for specialist residents. Resident satisfaction with the curriculum was high, but modifications to the assessment methods for the EBM curriculum are needed. Lessons learned from the pilot program will inform the development of future EBM instruction programs.

106

Expanding Our Roles: Embedded in Curriculum Design Δ

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Objectives: To describe how librarians became involved in helping to design a curriculum for a problem-based learning (PBL) course for first- and second-year medical students. Librarians became part of a team collaborating with medical faculty to revise the PBL curriculum, incorporating innovative teaching techniques and creating effective simulated patient case scenarios.
Methods: In August 2010, the PBL director contacted the library to help revise ten cases for a second-year PBL course. Two librarians joined the PBL multidisciplinary curriculum team meeting biweekly to create and revise medical tutor and student guides, and case modules. The cases successfully evolved from paper handouts to interactive PowerPoint modules with embedded videos. In the fall of 2011, the team continued revising the cases for second-year and expanded the process to revamp the first-year PBL curriculum. In the spring of 2012, four cases added standardized patients to enrich the experience of students' patient interactions and apply psychosocial learning objectives including EBM informatics. In the spring 2012 semester, the team collaborated in conducting an institutional review board (IRB)-approved research study evaluating the effectiveness and learning outcomes for students participating in the PBL curriculum case on abortion and sexual reproduction.
Results: The librarians' met regularly with the PBL program director, and collaborated with medical faculty and standardized patient department to revise PBL cases. The librarians' key contributions focused on revising and editing PBL tutor guides, providing technical expertise and Blackboard support, navigating copyright, and updating medical literature. As the PBL cases evolved, a core team developed the research study, resulting in opportunities for qualitative and quantitative research as well as subsequent publishing.
Conclusions: Working within a multidisciplinary collaborative team on curriculum development allows for librarians to move beyond the traditional role of instruction. The embedded role highlights the additional contributions librarians can make to the team in the areas of technology and research.

110

Finding Our Way in the World of Systematic Reviews: Hospital Librarians Contribute to the Creation of Systematic Reviews

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Objectives: To describe how the librarians at a 2-hospital, 1,100-bed, community-based teaching health care system support the writing of systematic reviews (SRs) by providing expert literature searches, management of references, documentation of searches, assistance with writing, and extensive document delivery services.
Methods: Librarians support the writing of systematic reviews by providing the following core services: harvesting terms, performing expert searches, documenting search strategies, creating RefWorks databases, and contributing to the manuscript. They increase their knowledge of well-conducted SRs by attending workshops. A librarian and a colleague, who has written many SRs, create guidelines that detail librarian support of SRs and what is expected from the primary authors. Librarians have to negotiate reasonable timeframes for completing searches. Cost and time for providing extensive document delivery services is considered.
Results: Since 2007, librarians and library assistants contributed to twelve SRs by providing extensive literature searching, documentation, and document delivery. As librarians' expertise and involvement has increased in the SR process, they routinely request and receive coauthorship. Eight of the twelve SRs (many in-process) will list a librarian or librarians as coauthors. Involvement in writing SRs has increased our librarians' recognition as expert searchers and provided new authorship opportunities.
Conclusions: Medical librarians at Christiana Care Health System have collaborated on many SRs. Contributing factors include having: (1) a champion researcher (LR) who recognized the potential of librarians' unique skills in assisting with SRs; (2) increased visibility in the institution for providing essential

services to all researchers, as well as those conducting SRs; (3) protected time provided by the library director to allow completion of tasks; (4) ability to provide substantial document delivery support; and (5) support of coworkers.

114

Following the Move: Perceived Value in a New Library Location

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Objectives: To evaluate how well a new library location met perceived needs and requirements of library users.

Methods: A small academic medical library was moved from a clinical building to an administrative building in early 2013. In late 2011, the library administered a five-question survey asking staff and students how the library could improve its services, space, and resources and what would draw them to visit the library more often. Survey responses helped guide institutional planning to create the new library space to meet the needs and requirements of all parties. A follow-up, post-move survey to assess how well the planning for services and space met perceived needs was completed after the library moved to its new location.

118

From Local to Global: The Speed of Open Access Δ

Virginia R. M. Carden, AHIP, Administrative Research Librarian; **Emma Cryer,** Electronic Resources and Serials Manager; **Adrianne Leonardelli,** Research and Education Librarian; **Emily Mazure, AHIP,** Biomedical Research Liaison Librarian; Medical Center Library & Archives, Duke University, Durham, NC

Objectives: Given the institution's increased global outlook, the library investigated several factors related to open access (OA) publishing, including our faculty's participation in OA journals through publication and involvement in editorial boards, the speed with which publications become freely available to the public, and a comparison of article citation rates.

Methods: Data from the institution's faculty publications database and electronic resource management (ERM) system were used to evaluate OA and PubMed Central (PMC) deposits. A list of OA journals was extracted from the institution's faculty publications database. This list was compared to data from Serials Solutions to determine the OA status of the publications. For a randomly selected sample of citations of differing OA statuses, citation rates were obtained from Web of Science. For a separate randomly selected sample of National Institutes of Health-grant funded citations, PMC inclusion was determined. Finally, we reviewed OA journal editorial boards in which our faculty published in order to compare their participation across the institution's global campuses. The compilation of these analyses will provide a clearer picture of the global availability of our institution's intellectual products.

120

Role of Information Specialists for Implementing Evidence-Based Practice Information System (EBPIS) in the Field of Homoeopathic Research in India Δ

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Objectives: This paper provides the concepts of evidence-based practice (EBP) in homoeopathic health professions and a synopsis of current trends in incorporating EBP into clinical education and practice in these fields. The implementation of EBP requires acquisition and use of a complex set of skills, including the ability to locate and critically evaluate clinically relevant research literature.

Methods: Since EBP is spreading in popularity day by day, information specialists play an important role by implementing evidence-based information systems for identifying and retrieving appropriate literature from various sources for use in the research projects carried out by the Central Council for Research in Homoeopathy, India, to consider the basis of scientific evidence, clinical expertise, and individual patient needs and choices. The author discusses information resources and tools that may be of value to researchers faced with the task of designing research protocols to search for and evaluate research-based evidence. In addition, we discuss how health sciences librarians, with the use of new model of information instruction and delivery, can work in developing curricula for researchers in EBP.

Results: EBP is in varying stages of growth among the homoeopathic fraternity. The evolution of EBP is evidenced by developments in research, and growth of the literature and resources. Information scientists' skills in surfing, collecting, organizing, and evaluating information can contribute to develop a model of EBP for the homoeopathic researchers.

Conclusions: The author attempted to explore how to search relevant information for evidence-based therapy, diagnosis, etiology, and prognosis both for original studies and secondary publications such as systematic reviews, meta-analyses, and clinical practice guidelines.

122

Global Reach of National Center for Child Traumatic Stress (NCTSN) Resources and Products Δ

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Objectives: To assess the breadth and range of worldwide access of the National Center for Child Traumatic Stress (NCTSN) electronic products, webinars, and e-communications, and to elucidate trends in product types, intended audience, and global events associated with this access.

Methods: As the national resource for public and professional education, NCTSN offers a wide range of materials online for multiple audiences and provides strategic e-communications on child trauma. These materials fulfill NCTSN's mission to raise the standard of care and improve access to services for children, their families, and communities. Current evidence indicates a global audience from over 150 countries access NCTSN products and e-communications, which may play a valuable role increasing awareness of child traumatic stress worldwide. Authors will use web analytics to track and map material access from outside the United States and to determine trends related to products and topics. In addition, e-communications will be mined for non-US subscribers. Lastly, trends will be cross-linked with noteworthy events in a particular country. Case stories will be used to demonstrate the breadth and range of worldwide access.

Results: Between October 1, 2011, and September 30, 2012, 17% of website visitors were from outside the United States with English-speaking countries making up 60% of that total. An analysis of keyword searches revealed three landing trends: (1) NCTSN name, (2) specific assessment scales, or (3) several com-

mon terms (childhood trauma, trauma types, and psychological first aid). Visitor flow varied by country; however, Canada, the United Kingdom, Australia, and New Zealand had profiles markedly similar to that of the United States. No specific trends could be linked to noteworthy events. Case examples for Canada, Japan and, Colombia are highlighted in the poster.
Conclusions: To the best of our knowledge, no other single website contains this amount of material concerning one of the most pervasive and treatable public health problems affecting not only our nation's children and families, but also those around the world. Despite its exclusive design for an American audience, the site appears to have global reach and value. Also, noteworthy is the recognition of the network's name as well as the reach of the Measures Review Database. Together, these results underscore the value of utilizing NCTSN resources and products in achieving the mission of raising the standard of care and access to services for traumatized children and their families.

126

Going Inside to Get the Word Out: Improving Health Literacy with Inmates Δ

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Objectives: This project's goal was to improve the health literacy, self-care management skills, and personal health care decision making of inmates during and after incarceration in a detention center. Increased awareness of resources for quality health information and services; improved ability to process, understand, and communicate basic health information; and better ability to understand and manage health issues and concerns.
Methods: An outreach librarian collaborated with a multidisciplinary community-based team to develop twelve health information modules and other health-related resources to be presented to inmates in a rural county detention center. Because inmates do not have access to the Internet, an offline system was developed for use by trainers and inmates during the period of incarceration. Selected topics included: mental health issues and stress, tobacco use and prevention, addictive behaviors, nutrition and weight management, preventive care, and community library resources and services available upon release. The resources selected for training for the offline system were downloaded onto computers in the detention center's computer lab available to inmates with appropriate privileges. Pre- and post-training questionnaires were administered to measure effectiveness. The detention center's program director was the project manager, and with a AmeriCorps VISTA volunteer, oversaw and guided project activities.
Results: Fifty-five inmates were qualified to participate in the project, and 39 completed both pre- and post-training questionnaires after completing all 12 modules of instruction. The outcomes of the evaluation showed that there was a significant improvement in computer skills from T1 to T2. In addition, there was a statistically significant increase in the following from T1 to T2 on the 5-point scale:

- the 12-item scale related to confidence in seeking health care and understanding the health care system;
- the 11-item scale related to knowledge of information provided in the modules;
- The 9-item scale related to knowledge of information provided in My Health Companion;
- the 18-item scale related to knowledge of information provided in the Florida Staying Healthy booklet;

In summary, the evaluation revealed that even with the small total number of 39 in this study, the results were encouraging.
Conclusions: The most effective strategy in implementing the project was the "Internet-in-a-box offline system." One strategy that would not be used again was scheduling the classes to run over a two-week period as first started in this project due to drop-out rates. Discussion between inmates and volunteer health professionals after each session is recommended.

130

Healthy People 2020 Structured Evidence Queries for PubMed: Practice Informed by Research

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Objectives: Healthy People (HP) 2020 is a set of objectives with ten-year targets to guide national health promotion and disease prevention efforts. Public health professionals may have limited time to identify relevant research articles on public health strategies. The National Library of Medicine (NLM) recognized the need to reduce the time and increase the precision of finding research to support evidence-based actions to achieve HP2020 objectives.
Methods: NLM collaborated with the Department of Health and Human Services (HHS) Office of Disease Prevention and Health Promotion to develop preformulated search strategies—structured evidence queries (SEQs)—of PubMed to make research evidence related to HP2020 objectives easier to find. The queries were developed by librarians, working in consultation with subject matter experts in public health. The PubMed search strategies are organized by HP2020 topic areas on the HP2020 SEQ website that is supported by NLM with assistance of the collaboration, Partners in Information Access for the Public Health Workforce. The website also provides search queries for the HP 2020 leading health indicators, a subset of high-priority health issues that represent significant threats to the public's health. Information to help users learn more about PubMed, obtain full-text copies of articles, and find additional resources for public health practice are provided on the site. Results The HP 2020 Structured Evidence Queries website, phpartners.org/hp2020, launched in June 2011. As of the end of 2012, structured evidence queries were formulated for 268 health objectives in 24 NP 2020 topic areas, with the expectation of full coverage by May 2013. The SEQs are also integrated with the HHS HealthyPeople.gov website. The PubMed search strategies were designed to return a manageable number of relevant citations for busy public health professionals to review. Users retrieve the most recent research articles indexed for MEDLINE on HP objectives each time a SEQ is selected and run in PubMed. The search strategies can be modified to address particular practice and research needs. The website includes FAQs on how to modify and save searches, obtain copies of articles, and receive assistance from the National Network of Libraries of Medicine. Additional resources on public health topics are available from the Partners in Information Access for the Public Health Workforce website, PHPartners.org.

Conclusions: The HP2020 SEQs provide peer-reviewed research evidence to support national objectives for improving the health of all Americans. The resource is the outcome of an effective partnership between librarians, public health professionals, and subject experts.

134

Hosting a Seminar Series to Engage the Biomedical Research Community

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Objectives: The current climate at our university emphasizes collaboration, data management, reduction of redundancy, and improved communication. In this environment, the library developed a seminar series focused on research, with the purpose of gaining a better understanding of the research environment, exploring silos of information, and building new relationships.

Methods: Recent strategic planning endeavors and participation in our campus-wide Association of Research Libraries/Digital Library Federation (ARL/DLF) eScience Institute exposed gaps in the library's knowledge and services. To address these gaps, library staff created a seminar series targeted for researchers, librarians, and other research support service providers. The goals and target audience were purposely broad to cultivate both envisioned and unexpected opportunities for learning and collaboration. In planning the series topics and speakers, the initial focus was on departments with which the library historically had minimal dealings (e.g., institutional review board [IRB]) or on "hot topics" (e.g., data management). This poster will describe the series creation and implementation as well as the resulting collaborative endeavors such as planning joint seminars and library participation in research events.

142

Impact Factors: The Next Generation

Joanne Rich, Information Management Librarian; **Leilani A. St. Anna, AHIP,** Information Management Librarian; **Janet G. Schnall, AHIP,** Information Management Librarian; Health Sciences Library, University of Washington–Seattle

Objectives: Measures to determine the impact of an individual researcher, journal, or institution are commonly used to support such things as faculty promotions and marketing efforts. An area of alternative metrics, methods of determining impact of articles, is evolving and is likely to play a significant role alongside the historical metrics. This poster will introduce some of these newer metrics.

Methods: A broad environmental scan will be conducted to uncover initiatives and trends in emerging methods of measuring impact. Traditional literature searches will be run in a wide range of databases to determine the extent of recognition of and possible research done on newer impact metrics. Web search engines will also be used to discover relevant literature and organizations that contribute to this topic. Professional and academic colleagues will be contacted to provide suggestions for additional information gathering. Known sources such as the OpenScience blog will also be monitored for newer developments. Terms used in searches included: social media, peer recommendations, citation tracking, citation analysis.

Results: During the environmental scan, we identified several new services that track impact of individual articles in different contexts. Examples of these new services include PLoS Alternative Level Metrics, altmetric.org, PaperCritic, Readermeter, ScienceCard, Faculty of 1000, and Peer Evaluation. These services generally target the social life of research articles, sometimes allowing for open peer review, and therefore draw upon the citation patterns in social networking. The services exist in various levels of development. The health sciences library already provides its users with a help page on impact factors (libguides.hsl.washington.edu/impactfactors). The alternative metrics information was incorporated into the help page in order to make our patrons aware of current trends.

Conclusions: Several academic institutions have begun to introduce their user communities to newer metrics to determine impact. These new measures operate outside the traditional boundaries of scholarly publishing and have not been studied well. Therefore, their use currently has a tenuous place in establishing the impact of a researcher or research article. However, the enthusiastic uptake of these methodologies by individual researchers and reputable organizations suggest that these trends are worth following and developing.

144

Impact of Disaster Health Information Training on Librarians' Professional and Volunteer Activities Δ

Cynthia B. Love, Technical Information Specialist, Disaster Information Management Research Center, National Library of Medicine, Bethesda, MD

Objectives: Do training activities on disaster health information topics affect librarians' willingness to participate in disaster preparedness, response, and recovery activities in their communities? Does training increase self-assessed confidence and skills in providing disaster health information? Do students change their involvement in disaster-related activities following training?

Methods: As part of a disaster information curriculum, at least 8 continuing education classes will be developed and offered several times each in 2012/13. At the start of the course development process, all instructors will participate in focus groups to define their collective goals for a disaster information curriculum and their ideas on how to assess willingness, skills, and actual activities undertaken by students following training. Approximately 200 students will complete a survey immediately following each class and again after several months to indicate their current attitudes about and actual participation in disaster-related activities. A sample of students will also be interviewed for more in-depth responses. The primary goal is to determine if the training changes behavior and in what ways. Student responses to a survey asking their opinions of the training content and quality of instruction will also be collected.

146

Impact of Mobile Computing on Nursing Student Engagement: Interdisciplinary Facilitation of Blended Learning Δ

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Objectives: "Nursing Research" is a course dreaded by undergraduate students. To combat this issue, a blended learning approach was used to enhance active learning and engagement. The purpose of the study is to determine if pairing mobile computing with asynchronous discussion boards as an adjunctive teaching strategy leads to improved student satisfaction, engagement, and reflective thinking.

Methods: Students enrolled in an introduction to nursing research course respond to faculty-devised discussion questions to increase their understanding of evidence-based practice. The

nursing instructor and reference librarian facilitate the online discussions and assessment tools. Half of the participants will be randomly assign to use tablet computers to enable continuous access to the online discussions and questionnaires. The researchers then evaluate if the ability to connect ubiquitously via mobile computing increases participation and satisfaction in the active learning strategies.
Results: This spring 2013 research is a replicative study with mobile computing serving as a new variable. Administered in the same course in fall 2011 and summer 2012, previous studies' data showed an increase in student satisfaction and reflective thinking. Anecdotal evidence revealed students' generally positive experience with the online discussions. However, the results lacked statistical significance due to low participation. Students felt distant from the asynchronous discussions when immediate responses to postings were lacking. Several participants noted this lag time in responses, suggesting the need for more interaction both among the learners. This research aims to determine if continuous, mobile access to the digital storytelling tools increases student involvement.
Conclusion: The researchers hypothesize that greater participation will strengthen the initial findings that the use of digital discussions increases students' perceived engagement in course materials and their reflective thinking. When evaluating reflective thinking, future research could examine different web-based discussion tools and compare nurses with other student populations.

158
Integrating Health Care Resource Access Δ
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Objectives: To connect the library's electronic resources into one user-friendly access point for the diverse user groups—from service personnel to nurses to physicians to students—each with varying levels of competency in finding information.
Methods: The librarian did a comparative analysis with the assistance of the information technology department of the two systems. Functionality, price, ease of integration with existing library systems and user-friendliness were used to compare the systems along recommendations from colleagues on a local, regional, and national level. A decision was made, and the system implemented.
Results: The evaluation was sent out to all users; 50 responses were completed utilizing SurveyMonkey; 52% found the ease of use to be extremely easy or easy. Compared to the old system, 62% felt it was far better to better.
Conclusions: The connection of the library's electronic resources has had some glitches, but overall has been a success. The glitches came in the login process and locating of specific resources. We are continuing to increase the connectivity to our electronic resources and have the new system be the mall for our library. A decision was made, and the system implemented. An evaluation will be done of our diverse user groups.

162
Integrating the Library and New Medical Learning Center
Patricia L. Thibodeau, AHIP, FMLA, Associate Dean, Library Services and Archives; **Richard A. Peterson, AHIP,** Deputy Director; **Virginia R. M. Carden, AHIP,** Administrative Research Librarian; Medical Center Library & Archives, Duke University, Durham, NC
Objectives: Libraries are being faced with many space issues that can provide opportunities as well as raise issues about their operations and purpose of their facilities. A new medical learning center was constructed adjacent to and physically integrated into the existing library building. This increased visibility for the library, but also made staff reevaluate priorities, operations, and utilization of space.
Methods: The library developed a planning team to work through a number of issues that ranged from collection and user spaces and services, to operational issues such as security, hours, and signage. One immediate advantage was the further integration of staff and services into the medical education process and activities, as well as leveraging the grand opening as a marketing opportunity. Raised walkways between the two buildings and a shared plaza created an integrated and welcoming impression, allowing students and faculty to flow between the buildings. Plans also included removing barriers to the flow through the building where the library was housed, creating even greater traffic but raising the question of how secure a print collection needs to be in primarily digital environment.
Results and Conclusions: The opening of the adjacent learning center required more changes than initially imagined. Due to the lack of barriers between the building and extended hours for the learning center, the library had to move collections to more secure locations, adjust itself to twenty-four-hour access without staff or security, cope with additional staff in its facility, and create a more integrated physical appearance between the two buildings. However, the grand opening celebration provided an opportunity for the library to showcase its history and changes as faculty, students, staff, and alumni toured the integrated facilities. While the library has been an essential component of curricular activities for many years, both the library and medical school foresee expanded library involvement in the educational program as the features of the adjacent learning center become fully functional.

166
International Collaborative Research among Health Sciences Librarian and Public Health Professionals in the United States and China Δ
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Objectives: China is experiencing one of the fastest growing HIV epidemics in the world. Little is known about what factors influence university students' condom use and health information seeking. The objective of this study was to identify the predictors that determined Chinese university students' intention to use condoms and their health information seeking behaviors.
Methods: A non-probability convenience sample of 433 participants was drawn from the multiple research sites, which were located in Shandong Medical College, Henan Institute of Education, and Chengdu University of Technology. An anonymous questionnaire designed based on the "Theory of Planned Behavior" (TPB) was self-administered among this study population between 2010 and 2011. A pilot study was conducted to test the

clarification of the survey instrument. Data were collected following the completion of the survey. Descriptive and inferential statistical analyses were performed using Predictive Analytical Software 18.0. Multiple linear regression was used for identifying the predictors influencing Chinese university students' condom use and their health information seeking behaviors.
Results: A total number of 433 Chinese university students participated in this research. The prevalence of condom use by the participants was 38.2%; 60.4% of the participants never attended any training on HIV/AIDS and sex education. Intention to use condoms was statistically significantly (r^2adj.=50.4%) predicted by attitudes (β=0.213), subjective norms (β=0.259), and perceived behavior control (PBC) (β=0.332). All predictors were statistically significant at the 0.001 level (P<0.001). Regarding the information-seeking behavior, TV, Internet, and magazines or journals were the most used information sources among the participants. Sex partners, parents or relatives, and health professionals were the least used information sources.
Conclusions: It is suggested that HIV/AIDS prevention programs should focus on attitudes, subjective norms, and perceived behavior control that may change perceptions and beliefs about using condoms and accessing HIV/AIDS information among Chinese university students. This study demonstrates that a health sciences librarian has expanded a traditional role in medical librarianship to advance the desired outcome of the partnership in collaborative research on public health and health education. It is indicated that a good partnership between health sciences librarians and public health professionals is a key to the success of an international collaborative study.

170

iPads Added to the Weill Cornell Medical Library Treasure Hunt Δ

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Aim: To demonstrate the successful integration of mobile technology into the incoming first-year medical student's treasure hunt of the Weill Cornell Medical Library.
Background: The incoming first-year medical students are introduced to library staff, programs, and services by going on a treasure hunt. The incoming class of 2016 was given iPads by the college, and their library treasure hunt integrated this new technology. Quick response (QR) codes were scanned to receive clues. The clues had instructions that took the students around the physical library, the library website to e-resources and apps, and the library's social media pages. To complete the treasure hunt, the students sent a chat via their iPads to the reference desk. They also received a final quiz to complete on their iPads. The winning team had the fastest time completing the clues and the highest score on the quiz.
Method: This is an evaluation of the treasure hunt for the class of 2016 based on a student survey and staff experience.
Results: Eighty-five evaluations were returned. It asked the students to respond to five questions. The first question requested that they name 2 things you have learned about using the library. Forty-nine percent of responses mentioned the physical location of library resources. Thirty-four percent of responses quoted specific library policies, and 17% of responses relayed information about electronic resources available in the library. Questions 2–5 used a Likert scale (1–5). Question #2 asked, "To what degree did use of the iPad help in orienting you to the library?" (1 being not helpful, 5 being helpful). Eighty percent of respondents selected 4 or 5. Question #3 asked, "Was the iPad easy to use in navigating the library orientation?" Eighty-one percent of respondents selected 4 or 5 (easy). Question #4 asked, "Were the clues that required online activity easy to complete on the iPad?" Eighty-two percent of respondents selected 4 or 5 (easy). Finally, Question #5 asked, "Overall, how would you rate the treasure hunt?" Eighty-seven percent of respondents selected 4 or 5 (lots of fun).
Conclusions: Based on the survey results, an overwhelming majority of students, (80% and higher) answered favorably in regard to iPad use during this orientation to the library's resources, physical space, and staff. Along with this positive feedback, large student participation, and positive comments from library staff, we concluded that the treasure hunt using the iPad was a grand success.

174

Knowledge Management for the Maine Medical Center: Establishing a Repository for the Hospital Setting Δ

Dina J. McKelvy, AHIP, Library Manager, Automation and Planning, Library, Maine Medical Center–Portland

Objectives: To initiate a repository of locally generated research, clinical and academic content was scanned, including a needs assessment, product development, and design of staff and workflow.
Methods: In this National Network of Libraries of Medicine-funded pilot project, we partnered with our sports medicine department to design and develop a repository, select and enter content, and gather feedback. We surveyed department members on their expectations and maintained contact throughout development for formative evaluation purposes. Concurrently, we hired an independent consultant to perform an environmental scan of our institution. This overall scan of the institution's knowledge assets enables us to plan for the expansion of the service and foresee the issues in sustaining the service at a larger scale. Our work with the sports medicine department gave us additional experience with current knowledge management strategies, and researcher attitudes and expectations. It also helped us clarify what our users consider relevant knowledge assets. Two products were tested as the basis for the repository: Sharepoint (in conjunction with EndNote) and DSpace.
Results: By the summer of 2012, we had developed a process for importing EndNote into a SharePoint list. This process was labor intensive and prone to error. In the fall of 2012, we sought and received additional NN/LM funding to expand the project for launch of the repository in spring 2013. We are currently partnering with the Maine Medical Center Research Institute. The new project will use EndNote and EndNoteWeb for repository citations and documents.
Conclusions: We learned several lessons from this pilot project. While we called this a "knowledge management" project, the term had little meaning for our users. We quickly transitioned to the term "repository." We also learned that a lot of time was spent struggling with unsupported software such as DSpace. In the hospital setting, the information systems resources are often limited and restrictive. We learned that working with currently supported software was more creative and fruitful in the long run. We learned that partnering with departments enabled us to generate enthusiasm for the project and gave us opportunities to demonstrate the value of the product early and often.

182

Librarians in a Leadership Role within Interdisciplinary Informatics Teams Δ

Samuel B. King, Assistant Professor and Manager, Manchester Campus Library, Library and Learning Resources, Massachusetts College of Pharmacy and Health Sciences, Manchester, NH; **Mariana Lapidus,** Associate Professor and Reference and Instructional Librarian, Library and Learning Resources, Massachusetts College of Pharmacy and Health Sciences–Boston

Objectives: The objective of this poster is to promote a leadership role for librarians in interdisciplinary informatics teams at institutions. The focus is on teams that provide informatics education.

Methods: A view of informatics will be explored, focusing not on technology, but as a discipline primarily dependent on "instrument-free" information skills, knowledge areas where librarians excel. This perspective will be supported by examples from history and the identification of informatics skills held by librarians. Successful librarian led interdisciplinary teams for teaching informatics at the Massachusetts College of Pharmacy and Health Sciences will be discussed. From this information, a vision of librarian led informatics education will be proposed.

Results: Librarians have both the informational and interpersonal skills to effectively lead interdisciplinary informatics teams, particularly within informatics education. Other results will be provided in the poster.

Conclusions: Informatics is the study of accessing, analyzing, making decisions, and communicating information. Technology is incidental, but not exclusive, to the understanding of informatics. Librarians have the background and skills to perform as effective leaders in teams providing informatics education. Other conclusions will be provided in the poster.

184

Librarians' Role in the Hospital's Open Heart Surgery Protocol

Geneva Bush Staggs, AHIP, Assistant Director, Hospital Library Services, Health Information Resource Center; **Judy Burnham, AHIP,** Director, Charles M. Baugh Biomedical Library; University of South Alabama–Mobile

Objectives: Objectives of the project are: to provide literature searching and articles to inform protocol development, to provide presurgery education to patients awaiting open heart surgery about the bypass or valve replacement procedure and what to expect after surgery, and to create more awareness of patient information service throughout the hospital by having the librarian seen on the floors interacting with patients.

Methods: The librarian in an academic medical center with a consumer health information service will participate as a member the hospital's CVT advisory team that is creating a new clinical protocol for open heart surgery based on best practices. The librarian will participate on the heart surgery care team by providing information to the patient awaiting heart surgery (and the patient's family) using resources from MedlinePlus. All patients will be scheduled to view the appropriate video prior to any other pre-op education to provide a basis and help them start thinking about questions to ask their health care professionals. A handout outlining access to the video shown to the patient will be designed so that the information can be shared with their family. Advisory and care team members will be surveyed regarding awareness of librarians as members of health care teams. The handout will be provided in English or Spanish, as appropriate.

Results: Viewing videos pre-surgery was considered by patients to be helpful and prompted patients to ask questions of their health care professionals. Advisory and care team members considered the librarian a helpful addition to the teams in both the role of information provider and the role of educator.

Conclusions: Activities of these types are appropriate ways for librarians to interact within hospital settings. Librarians who are proactive in pursuing channels to influence patient outcomes are appreciated by health care professionals and hospital administrative personnel.

186

Library on Demand: Streamlining Service to Meet the Needs of the Hospital Δ

Tony Nguyen, Health Sciences Librarian; **Stevo Roksandic,** Library Director; Mount Carmel Health Sciences Library, Mount Carmel Health System, Columbus, OH

Objectives: This paper examines the process in which a medical library developed an extension of services and staff commitment to better meet the needs of the hospital staff and physicians by utilizing the interoffice mail delivery system between 5 operating sites and improve access of the electronic resources and provide information on demand.

Methods: An academic health sciences library that currently services the academic and medical research needs of a nursing college operating on 2 sites and 5 operating medical facilities including a staff of 8,000 employees and 1,500 physicians and doctor offices.

Results: The library operated as a fully staffed library in each of the medical facilities. However, due to staffing cuts and shortages, the library employed new technologies and made creative changes to deliver library resources virtually directly to hospital staff and physicians, while the library is fully staffed at one location. Information commons were developed within the hospital libraries with computer stations for users to access a redesigned library website to locate e-resources, search the catalog, and request delivery of hard copy books to their office streamlining circulation. The redesigned library website also allowed users to utilize our "Ask Us Now" service.

190

Mapping the Core Journals of Evidence-Based Health Sciences Librarianship Δ

Priscilla L. Stephenson, Chief, Library Service, Philadelphia VA Medical Center, Philadelphia, PA; **Mary Virginia Taylor,** Chief Librarian, Library Services, Overton Brooks VA Medical Center, Shreveport, LA

Objectives: The purposes of this study were (1) to identify the core journals in the literature of evidence-based librarianship, (2) to determine the currency of references cited in that literature, and (3) to identify the online databases providing the highest coverage rate of core journals.

Methods: The project examined references in seven source journals for the period 2009–2011 to determine the core journals in the field of health sciences librarianship. Data for each cited reference in each full-length article from the seven source journals were recorded for three years, including type of literature, year of publication, and journal title. The journal titles were then ranked in descending order according to the frequency of citations and divided into three zones using Bradford's Law of Scattering. Three databases were analyzed for coverage rates of articles published in the Zone 1 and Zone 2 journals.

Results: Journal articles were the most frequently cited type of literature (66%). Internet resources accounted for more than 17% of the citations; books accounted for 14%; and a miscellaneous category (3%) contained case law reports, meeting presentations, and other forms of documents. The *Journal of the Medical Library Association* (and its former title, *Bulletin of the Medical Library Association*) was the most commonly cited title, followed by *Health Information and Libraries Journal* (with its former title, *Health Libraries Review*), and *Medical Reference Services Quarterly*.
Conclusions: Health sciences library journal authors from these seven titles relied heavily on published work from their own professional literature, but titles from clinical medicine were also highly cited. Results of this study will aid librarians in searching this literature more effectively.

194

Mobile iPad Teaching Lab: Training in Health Information Connections for Military and Veterans Health Δ

Catherine Mary Boss, AHIP, Coordinator; **Chunwei (Charlie) Ma,** Systems Librarian; Booker Health Sciences Library, Jersey Shore University Medical Center, Neptune, NJ

Objectives: The pilot project sought to evaluate the use of iPads as a teaching modality to extend the Booker Library's community outreach to area service personnel, veterans, and military families, training this target population to get connected to trustworthy health information and stay informed locally and globally.
Methods: The Booker Library purchased 9 iPad 2s with WiFi, 3G Internet services, and peripherals. A training class syllabus, pre-test to determine iPad skill levels and post-test on MedlinePlus was developed. Initially, the project had difficulty in locating sites to conduct training classes until project champions were identified within the medical center and military community. Outreach training classes were taught by the project coordinator with technical assistance from the library's systems librarian. In the first month of the project, a training class was held for the state's Vietnam veterans group followed by a class for Jewish war veterans and a class at the Earle Naval Weapons station. Class attendees were evaluated before each class to iPad skill level, language, and reading ability. The post-test evaluated the attendee's ability to successfully access and navigate MedlinePlus. Each participant received a branded library packet of information for the class.
Results: The Booker Library's major accomplishments were threefold. The iPads proved to be a successful teaching modality for community outreach. Most in attendance had never used an iPad but found them easy to use. Secondly, the audiences were introduced to the wealth of information on military health and general health that MedlinePlus has to offer. Third, the program informed the audiences about the award-winning consumer health home delivery service of the Booker Library, now in its 10th year of operation.
Conclusions: Internet-enabled and WiFi-enabled iPads proved to be an appropriate and effective teaching modality for community outreach. Connecting with and cultivating champions within the military is crucial for military outreach. Many of the veterans groups contacted by our project librarians were not interested in classes run by non-veterans, and outside persons are barred from attending any meeting. Military clearance has to be received to conduct classes on a military base. Once on base, the class instructor had to go through several security checkpoints, including a complete car search and had to be escorted to the classroom.

198

Nihil Novi? Interdisciplinary Information Services at the Center of Alcohol Studies at Yale and Rutgers (1940–2013)

Judit Ward, Director. Information Services, Center of Alcohol Studies, Rutgers University, Piscataway, NJ

Objectives: To explore and document how a revolutionary special library information system designed in the 1940s to disseminate knowledge on an evolving new field, Alcohol studies managed to keep current and remain influential throughout decades by embracing change, adopting technology, and pioneering new ways of reaching diverse audiences as vital part of a leader multidisciplinary institute in the field.
Methods: Relying heavily on primary sources from the Center of Alcohol Studies (CAS) archives, this study aims at locating and interpreting documents to recapture the nuances of inception of the CAS special library information system. It wishes to demonstrate that with its novel methods of organizing and disseminating information , including the publication of the first scholarly journal on alcohol-related problems in the United States, the information services division has been one of the five crucial components of CAS (founded at Yale University, then moved to Rutgers University) ever since. The research expects to discover some key elements in applying innovations of information science to an evolving interdisciplinary field in the past 7 decades. Identifying the original components as well as tracking their trajectories over time will yield invaluable knowledge in terms of practical applications translatable for the 21st century health libraries.
Results: The Information Division at CAS, in preparation for the 75th anniversary of the *Journal of Studies on Alcohol and Drugs,* also published here, revived the past by reviewing, selecting, and digitizing material from its archives for 2 years. Locating and interpreting documents resulted in unexpected outcomes leading the research to new directions during the process. Among the unrevealed treasures are the original Jellinek curve, from which the more popular version evolved; the prototype of the alcometer and alco-calculator, the father of alcohol testing; and an episode from *Hollywood Squares,* sponsored by CAS, with a discussion guide for educational purposes. Preserving and digitizing material related to the birth of the science of alcohol studies also shed light on the merits of an early model of organizing information in a multidisciplinary field, the Classified Abstract Archive of the Alcohol Literature (CAAAL). CAAAL is a collection of approximately 20,000 abstracts prepared by CAS staff from 1939 through 1977 of the scientific and scholarly alcohol literature, including scholarly articles, monographs and their chapters, and published and unpublished reports, all searchable by subject using a needle-sort method. Its highly regarded methodology of indexing and abstracting alcohol studies became crucial to the field and is worth sharing.
Conclusions: The poster presents the journey in time and space of current and past library staff to preserve and share the wealth of knowledge gathered over the years in the form of a modern digital archival collection. It also points out our responsibilities, not only in the preservation of historical material, but also in the organization of the information accumulated from conscious and accidental collection development and in providing access to praiseworthy items, methods, and collections, which might also serve as examples to follow in other interdisciplinary fields.

202

Northern Virginia Disaster Health Information Outreach and Collaboration Project

Lois Culler, Library Director; **Melinda Byrns,** Librarian; **Amber MacLaren,** Librarian; **Meredith Solomon,** Librarian; Health Sciences Library; **Dan Hanfling,** Special Advisor, Emergency Preparedness and Response; Inova Fairfax Hospital, Falls Church, VA; **Zachary Corrigan**, Executive Director, Northern Virginia Hospital Alliance, Falls Church, VA

Objectives: This disaster health information outreach project established a medical librarian-led disaster information specialist role in collaboration with members of the Northern Virginia Hospital Alliance (NVHA) to serve disaster planners, responders, and community members and to rebuild connections among all medical libraries in the area around this important topic. This project was funded by the National Library of Medicine (NLM).

Methods: Through a process of needs assessment, resource gathering, portal development, and promotion, this project will attempt to improve the access for members of the NVHA to disaster-related health information in real-time during disaster drills and events, as well as during planning and mitigation phases. The NVHA website will host a comprehensive listing of relevant resources, and a set of core print disaster-related books will be identified and made accessible at each NVHA member hospital. Also, reliable disaster-related health information for community members within the target area will be identified and shared. This project will rely on already established partnerships and programs in place within NVHA and the Inova Health System.

Results: The project will identify and refine a list of roles for the disaster information specialist and will allow the creation of a job description to become a part of NVHA's Regional Hospital Coordination Center command structure. Disaster-related topics identified through needs assessment will serve as the basis for the development of resource lists. Outreach activities will raise awareness of reliable resources, including those available through NLM's Disaster Information Management Research Center, among all professionals across the disaster continuum.

Conclusions: This project could serve as a model that could be implemented by other medical librarians supporting their own communities.

206

On Air Locally, Online Globally: Evaluating WordPress Options for a Consumer Health Radio Show Website

Karen R. McElfresh, Graduate Research Assistant, User Services Department; **Barbara Rochen Renner,** Library Services Evaluation Specialist and Liaison, Allied Health Sciences; **Robert Ladd,** Instructional and Media Design Specialist; Health Sciences Library, University of North Carolina–Chapel Hill

Objective: To evaluate WordPress.org as a possible replacement for WordPress.com for a blog used as the website for YOUR HEALTH, a consumer health radio show. The show is produced and hosted by the University of North Carolina–Chapel Hill (UNC) Department of Family Medicine. Airing weekly on local AM radio, the blog/website receives an average of about 1,400 views per month and has had over 30,000 views since its inception in June 2010. In addition, the site has been viewed in over 110 countries since February 2012. The site is available at yourhealthradio.org.

Methods: The UNC Health Sciences Library collaborates with the show's producers on website design and functionality, evaluation of site statistics, and provision of consumer health resources for the website to augment information presented on air. Following a year of successful use, the library sought to determine whether WordPress.org might offer significant advantages in design flexibility, mobile browsing experience, or ability to capture site statistics and user blog search behavior. Library database and web searches were used to identify features of WordPress.org that might improve the design and functionality of the radio show's blog/website. After first evaluating and selecting a web-hosting service necessary for WordPress.org blogs and setting up a test site in WordPress.org, testing of themes and plugins was conducted to assess ease of use, cost, and any improvements to or loss of functionality in comparison with the current WordPress.com blog.

Results: We identified several useful features of WordPress.org, including a larger selection of blog themes and the ability to download plugins to customize the website. Features provided by these plugins include the ability to capture a wider variety of user statistics that includes enhanced geographical information, greater design flexibility, and an improved mobile browsing experience. WordPress.org requires the purchase of hosting services but eliminates the cost of space upgrades, making the costs of WordPress.com and WordPress.org fairly comparable for our site. There was some additional complexity and time involved in evaluating hosts and choosing plug-ins for WordPress.org, but otherwise we found both platforms similar to set up and use.

Conclusions: We found multiple advantages to using WordPress.org for this project. Presented with results of our evaluation, the show's hosts and producer expressed interest in converting to WordPress.org. Together, we are considering logistical considerations such as budgeting and personnel in order to determine the feasibility of making the transition to WordPress.org.

210

One for All and All for One: Use of an Institutional Repository and Open Access Journals by Library Staff Δ

Leah C. Osterhaus Trzasko, Health Science Librarian, Health Science Library, Mayo Clinic Health System, La Crosse, WI; **Melissa Rethlefsen, AHIP,** Education Technology Librarian, Learning Resource Center; **Ann Farrell,** Librarian, Mayo Clinic Libraries; Mayo Clinic, Rochester, MN

Objectives: To evaluate the presence of library staff-authored and coauthored papers in open access journals and the institutional repository.

Methods: Mayo Authors Database, the institutional repository, with coverage back to 1871, was designed and is maintained by the library. Citations are added to the database by a partially automated process that searches multiple databases, such as MEDLINE. Citations in journals not indexed by these databases are not automatically added to the repository. It is the author's responsibility to add these citations to cover gaps in their bibliography. Library staff's use of the repository was evaluated by creating staff bibliographies from the institutional repository. Complete bibliographies for current library staff were created by database searching and staff surveys, and were compared against repository bibliographies to determine if library staff are actively using the repository. They were also used to determine the publishing habits of library staff, including use of open access journals and tracking impact.

214

One Mind, One Body: Healing Takes More than Medicine

Barbara J. Henry, Director, Medical Libraries, Lewis B. Flinn Medical Library, Christiana Care Health System, Newark, DE

Objectives: To describe how the library staff at a National Cancer Institute-recognized Community Cancer Center supports cancer patients through their journey by providing integrative health materials to assist our patients in finding ways to improve their ability to cope, to recover, and to move forward in life with a positive attitude.
Methods: The library staff supports the wellness programs sponsored by the cancer center in many ways. The library has complementary/integrative medicine materials; exercise DVDs; guided imagery, relaxation, and meditation audio discs; and multimedia mindfulness resources; as well as print, audio, and video materials on coping, stress management, and dealing with anxiety and depression. The most popular section of the library is its lending collection of humorous DVDs. Suggested by a patient as a way to help him get through chemotherapy, the section began as a single shelf of videotapes. In 10 years, it has grown to over 700 DVDs.
Results: During the study period (September 5–October 31, 2012), 96 unique borrowers checked out 496 items from the Junior Board Cancer Resource Library. Of these items, 326 were either DVDs or CDs (65.7%). We surveyed all patrons who checked out DVDs and/or CDs during the study period (n=61). Twenty-two surveys were returned (27.7%). All responses indicated that patrons were either "extremely satisfied" or "very satisfied" with both collections. Users indicated the collections helped them to reduce stress, cope better, improve their mood, and improve quality of life. Patrons preferred comedy, drama, and romance DVDs; they favored meditation, classical music, and stress reduction CDs.
Conclusions: A humor DVD collection along with an integrative healing CD collection can assist patients along their cancer journey. These collections are heavily used by the Helen F. Graham Cancer Center's patients and their families, as well as staff and others.

218

One Survey to Rule Them All: How to Design a Comprehensive User-Centered Customer Satisfaction Survey
James Brucker, Instructional Design Librarian; **Heidi Nickisch Duggan,** Associate Director; **Linda O'Dwyer,** Communications Coordinator and Education Librarian; Galter Health Sciences Library, Northwestern University, Chicago, IL
Objectives: This academic health sciences library needed to quickly develop a large-scale, comprehensive, affordable survey instrument, whose data can be compared with peer institutions and previous library assessment projects. This new tool needed to be more user friendly than previous tools, and implemented quickly in order to establish baseline data before imminent library policy changes.
Methods: The library specified four major categories: collections, physical space, services, and overarching themes. Then it used an instrument-design rubric to identify topics and questions within those categories. For each topic, variables, definitions, and data types were isolated, along with a plan for data analysis. Topics from previously used surveys were mapped into this framework, ensuring backwards compatibility with peer data. After identifying the metrics and measurements needed to yield usable data, the library created the actual survey questions as a separate step. Each question was compared to the desired outcome. This enabled an editorial focus on crafting understandable user-centered survey questions. To reduce user fatigue, the total number of survey questions was limited. Branching points were created to focus on users of the physical library space, while applying the other three categories to all users.
Results: The resulting data were generally consistent with data obtained using previous tools. Most users who started the survey went on to complete it. The survey included many opportunities for open-ended feedback, and none of the users provided negative feedback about the survey itself. Additionally, the library received none of the anecdotal critical feedback that had accompanied previous large-scale surveys. Baseline user-satisfaction data was established for collections and physical space usage, and the targeted results elucidated key opportunities for service improvement.
Conclusions: The tool may need to be edited as the library grows and changes, but the data should be comparable to previous iterations, making this an excellent tool for internal long-term analysis. Reporting the results, digesting a large amount of data, was difficult and time consuming, so a reporting rubric could be formulated to standardize the reporting, making reports easier to create and read. Also, subjects were never directly asked if the survey tool itself was easy to use, and that may be a future enhancement. Overall, the library achieved its goals of creating a large-scale, reusable, user-friendly survey that measures user satisfaction with a considerable degree of accuracy.

222

Online Journal Club: Scholarly Literacy Need Not Hurt
Wendy Isser, Medical Librarian; **Monique Thorne,** Nurse Educator; Northport VA Medical Center, Northport, NY
Objectives: Keeping current and educationally fresh is vital for our staff and the patients they serve. Reluctance exists to traditional learning once degrees and employment have been procured. To successfully provide continuing education to our staff, one must utilize creative and experiential learning techniques.
Methods: The latest technology available is utilized including VANTS, PowerPoint, and LiveMeeting so that people can participate in person, from their workstations or even their homes. All venues of differentiated instruction are met with this multisensory approach.
Results: The online journal club benefits the Northport VA by giving the participants tools necessary to enhance their education and current practice. Learning and growth are carried on in a nonthreatening, informal but prescribed manner that benefits attendees and presenters alike.
Conclusions: The online journal club positively impacts our veterans by having well-informed health care workers who can maximize patient outcomes. The Northport VA online journal club is unique in that is not only interdisciplinary, but interactive and the remote capability only strengthens its impact.

226

Outreach 3.0: Evolution of Nursing Liaison Program
Robert Joven, Librarian, Lyman Maynard Stowe Library, University of Connecticut Health Center–Farmington
Objectives: This poster aims to demonstrate the 10-year evolution of a liaison program for the department of nursing in a 300-bed teaching hospital. Through active participation in various nursing activities and collaboration with many nursing personnel by the liaison librarian, the program has grown into one of the library's most successful outreach program.
Methods: The liaison program to the nursing department, which began 10 years ago, has evolved over the years. The liaison librarian now realized his involvement in activities that goes beyond what was initially offered to the department as part of his original outreach framework designed many years ago. The librarian's recent activities include involvement in planning state-

wide nursing symposiums, more recently the heart failure symposium; participation in a nursing committee task to designed care delivery model for the institution; involvement in nurses week activities and annual daylong nursing retreats; and participation in competency training for all 800 nursing staff annually.
Results: Liaison librarian's value to the department has been acknowledge through awards and letters of commendation. High-ranking nursing administrators in the institution have repeatedly called on the librarian to participate in various nursing activities such as nurses week, and all day nursing retreats. Moreover, the LibGuide created by the library as a portal for immediate access to nursing resources has seen tremendous traffic and is now being used by the department as a bulletin board to promote nursing activities and to post important departmental documents.
Conclusions: My results are not complete yet as I am participating in other activities within the next several months that I would like to include in the poster.

228

Partner with Physicians to Support Continuing Education in the Clinical Setting: Enable Their Reading Habits!

Lydia Witman, Clinical Librarian, Library Services; **John Stern,** Attending Physician, Infectious Diseases; **Donna Quinn,** Intranet Coordinator; **Mary McCann,** Director, Informatics, Library and Privacy, Library Services; Pennsylvania Hospital–Philadelphia

Background and Objectives: Librarians working in clinical settings are challenged by clinicians' lack of time for nonessential reading. At our hospital, partnership between the clinical librarian and a senior physician resulted in an e-newsletter. The newsletter aims to provide medicine residents, faculty, medical school students, and other members of the Penn Medicine community with hand-selected educational reading material from both popular and scholarly sources. The ultimate goal is to encourage good reading habits for lifelong and professional learning.
Methods: An attending physician who is also a member of the hospital faculty reached out to the library about sending health-related popular press items to the medicine residents on a regular basis. The librarian embraced the idea and suggested pairing popular press items with relevant academic papers or other scholarly sources. An initial recipient list was compiled, with additional recipients added over time. An online "reader poll" was periodically conducted (after 1 month and after 1 year). After initially distributing via email only, Dreamweaver was used to create an archive of past issues, and all subsequent issues were produced as HTML versions for instant archiving. Distribution to the recipient list is by email.
Results: Beginning with approximately 50 recipients, comprising primarily internal medicine residents, after 1 year, recipients numbered approximately 400 and included all students at our affiliated medical school. Feedback from periodic reader polls is generally positive. As of December 31, 2012, after approximately 14 months since the first issue, a total of 24 issues were produced. With an average of 4 to 5 sources in each issue, a total of 111 sources were distributed.
Conclusions: Unlike automated reading tools (e.g., RSS feeds or Docphin), our e-newsletter is a high-touch product tailored to our population. It encourages good reading habits for lifelong and professional learning, and serves to connect faculty members with learners throughout Penn Medicine on both the university and the health system sides.

230

Partnering for Value: Library and Information Science Professionals: Key Players on the Federal Health Information Technology Team Δ

Jamie Stevenson, Principal Investigator, Federal Library and Information Network (FEDLINK), Library of Congress, Washington, DC

Objectives: To identify opportunities for federal library and information science (LIS) professionals to support health care, its practitioners, and health information technology (HIT) initiatives across the federal enterprise. Opportunities were aligned with goals from the Office of the National Coordinator for Health Information Technology (ONC) Federal Health Information Technology (IT) Strategic Plan.
Methods: In 2012, a federal interagency health information technology advisory council (HITAC) of leaders from federal agencies, academia, and medical centers was convened to increase the LIS professional's role in health care improvement. Council work was supported by a literature review that identified shared opportunities within HIT and libraries, and a thorough review of the ONC plan to leverage HIT to improve care. High-yield opportunities that best supported the federal agenda were selected to guide future efforts. Using these identified opportunities as a framework, leaders in LIS were tapped to develop a list of LIS professional roles currently undertaken or that could be adopted, along with potential health care partners. As a culmination of this data gathering, a mixed-method survey approach was used to identify federal and nongovernmental individuals employed in these roles and potential partnerships.
Results: Findings will be shared during the session.
Conclusions: Significance and future directions will be shared during the session.

235

Setting Expectations: Getting Your Systematic Review Started on the Right Foot

Victoria H. Goode, Clinical Informationist; **Katie Lobner,** Informationist; Welch Medical Library, Johns Hopkins University, Baltimore, MD

Objectives: In the past four years, systematic reviews have become a greater portion of the services offered to patrons. One issue the authors have encountered is how to set expectations for your patrons before starting a systematic review. This paper will discuss the questions that need answering before you start, common pitfalls encountered, and how to manage your patrons' expectations.
Methods: There are several aspects to conducting a systematic review. The most important element is the reference interview. The authors will discuss how to manage a reference interview, how to come to an agreement for the project timeline, how to manage topic selection, and how to deal with administrative questions like database selection and information management. The authors will also cover how to formulate the search strategy.
Results: The authors have completed numerous systematic review searches and have developed a keen understanding of how to conduct an effective and efficient systematic review process:

- Be sure to clearly explain the amount of time that is required to complete a systematic review. The fewer people on a team, the longer the process will take.
- Be prepared to update the search results numerous times before publication.

- Make sure your methods are clearly documented. Do not wait until the end of the project to try to remember what you did.
- You will have to take the initiative to contact the research team to find out when the systematic review has been accepted for publication.
- As the information expert, do not be afraid to have an opinion.

Conclusions: The librarian's role in setting expectations is very important to the success of the overall project. Because of this, it is important to become fluent at dissecting the patrons' wants and translating them into an achievable project. This knowledge has proved useful when teaching the process to new hires.

239

The Final Piece of the Puzzle: Assessment of Information Literacy Skills in Graduate Medical Students Δ

Fiona Russell, Medical Librarian, Deakin University Library, Deakin University, Geelong, Australia

Objectives: In an evidence-based profession, excellent information searching skills are critical, yet without some assessment of skill, the effectiveness of evidence-based medicine in practitioners may be compromised. Students in graduate medical schools need to be assessed on the learning outcomes of information literacy classes to determine whether they have effectively developed their information searching skills.

Methods: One hundred twenty-eight year two students in the graduate medical program at Deakin University in Victoria, Australia, undertook a module on research proposal writing as part of their curriculum in 2012. This was intended to contribute towards their understanding of the role of research evidence in their future practice. An intensive series of three tutorials on literature searching was provided, and students were assessed on their search strategies, including their choice of search objectives, use of appropriate search tools and features as appropriate, revision of searches, and critical selection of material. The objectives of the assessment were closely aligned to the Research Skill Development Framework from the University of Adelaide, and the assessment tool was a flowchart of questions and an example search strategy.

Results: All students participated in the assessment task in groups of 3 (one group of 2). This contributed toward 10% of their overall assignment for the research proposal. Benefits of the assessment task were engagement with searching, with at least 1 student from 18 of the 43 groups meeting with the medical librarian to discuss various search objectives and strategies, and an increased understanding for the medical librarian of specific searching skills of the students and areas for future focus. Challenges with the assessment included a large time commitment for marking, insufficient marks available to significantly separate groups, and differences in student searches based on varying complexities of groups' research questions.

Conclusions: Consistent assessment of a graduate cohort of medical students requires time in the curriculum, for marking and for appointments that are generated. The cooperation of medical teaching staff is essential. The drawbacks of time commitment and the risks of subjectivity and variety of research question in an open-ended assessment task are traded off in the benefits of high student engagement, high value placed on searching skills in the curriculum, and an encouragement of students to seek assistance with their searching. Components of searching skills are best evaluated in the broader context of an assignment, and a tight rubric is important to help minimise subjectivity.

243

Developing and Evaluating a Systematic Review Service Δ

Margaret Jane Foster, AHIP, Assistant Professor, Systematic Review and Research Coordinator, Medical Sciences Library, Texas A&M University–College Station

Objectives:

- To describe the development of a systematic review service
- To evaluate the consultation service
- To evaluate tools to support researchers conducting systematic reviews: web page, RefWorks, Documentation of Review Methods And Resultsm(DoRMaR) workbook, designed to guide researchers through the review process while providing tables and figures for publication

Development: The protocol for systematic review consultations will be described, including negotiating authorship will be described as well as the development of tools.

Methods: A ten to fifteen-minute online survey was sent to all clients who had used the consultation services during 2012. Questions consist of demographics, level of confidence in skills before and after consultations, current state of the review, usefulness of tools, and ways service could be expanded or improved. Internal review board (IRB) approval forms were submitted.

Results: Fifty clients were contacted during January 2013.

247

Validating a Search Filter for Diagnosis Sensitivity and Specificity Δ

Susan A. Fowler, Medical Librarian, Bernard Becker Medical Library; **Lauren H. Yaeger,** Librarian, Medical Library, St. Louis Children's Hospital; **Betsy Kelly,** Associate Director, Health Information Resources and Assessment, and Evaluation Coordinator, National Network of Libraries of Medicine, MidContinental Region, Becker Medical Library; **Christopher Robert Carpenter**, Assistant Professor and Emergency Medicine Director, Evidence Based Medicine, Division of Emergency Medicine; School of Medicine, Washington University in St. Louis, St. Louis, MO

Objectives: Systematic reviews require the particular knowledge and skill set of information professionals who structure complex search filters and organize the resulting literature. We propose to utilize our unique set of research skills by validating a search filter in a topic commonly requested by our clinical researchers.

Methods: When directly requested to use the PubMed Clinical Queries sensitive/broad filter for diagnosis specificity and sensitivity in support of a systematic review, we discovered that the filter was not validated. By creating a test hedge from topic-appropriate articles cited in the study, we also discovered that the PubMed filter did not successfully retrieve 12% of those articles. We will build out a new filter for diagnosis specificity and sensitivity harvesting terms from titles and abstracts of the test hedge articles and synonyms listed in Medical Subject Headings (MeSH) and other standardized terminologies. We hypothesize this new filter will retrieve more, hopefully all, of the articles in our test hedge. We will also run a literature search on how others have validated search filters and use either one of those methods or a method modified for our needs.

251

Assessing the Information Needs of Early Career Biomedical Researchers Δ

Emily Mazure, AHIP, Biomedical Research Liaison Librarian; **Patricia L. Thibodeau, AHIP, FMLA,** Associate Dean, Library Services and Archives; **Megan von Isenburg, AHIP,** Associate

Director, Research and Education Services; **Leila Ledbetter,** Research and Education Services Librarian; **Karen S. Grigg, AHIP,** Associate Director, Collection Services; **Brandi Tuttle, AHIP,** Research and Education Librarian; Medical Center Library & Archives, Duke University, Durham, NC
Objectives: To determine the information-seeking needs and behaviors of biomedical researchers at an academic institution, with a particular focus on early career basic science researchers, a historically underserved population. Findings from the assessment will steer the development of targeted library services specifically for this population.
Methods: Recent strategic planning initiatives revealed the biomedical research community as being an underserved population and a less-understood user group. A work group was therefore tasked with gaining a better understanding of this group and exploring opportunities for better reaching them. The work group conducted an initial environmental scan of the institution and the relevant literature. In an effort to target early career, basic science researchers, who we believe would benefit most from increased library support, librarians designed a mixed-methods approach employing grounded theory principles. This approach begins with collecting data through focus groups and individual interviews and testing the resulting theories through surveys. This presentation will detail the work leading up to the decision to conduct an assessment, the process of finding and working with collaborators, a review of grounded theory, the planning of the assessment, and our work to date.
Results: The results will be presented at One Health.
Conclusions: The conclusions will be presented at One Health.

255
HINARI: Impact of Marketing Campaign for New Registrants Δ
Gaby I. Caro, HINARI Technical Officer, WHO Library, World Health Organization, Geneva, Switzerland; **Lenny Rhine, FMLA,** Coordinator, E-Library Training Initiative, Librarians Without Borders, Medical Library Association, Chicago, IL
Objectives: In December 2011, HINARI (www.who.int/hinari/) conducted a marketing campaign for newly registered institutions. We will evaluate the impact of receiving this packet of marketing materials to determine whether the marketing campaign resulted in increasing the knowledge and use of HINARI.
Methods: An online questionnaire will be submitted to all the contacts from 297 institutions. Sample questions: Were the materials received successfully? Were the materials useful on a scale of 1–5? What activities were developed? If no activities were organized, why were they not done? What other materials would be of use? This campaign included 297 institutions in 69 countries. 55 of the countries from Group A (free access), while 14 countries from Group B ($1,000 per year for an institution's access). Each institution received a packet of posters, brochures, a CD-ROM. and a video. Our hypothesis is that the marketing campaign was of use to the newly registered institutions and resulted in greater knowledge and use of HINARI. If so, we will propose to expand this campaign.

259
Are Latin American Clinical Studies an Overlooked Resource for Global Health? Δ
Assako N. Holyoke, Medical Reference Librarian, Medical Center Library, Saint Louis University, St. Louis, MO; **Rosemeire Rocha Pinto,** Supervisor, Reference and Education Services, BIREME (Latin American and Caribbean Center for Health Sciences Information), Pan American Health Organization, São Paulo, Brazil; **Elisabeth Peres Biruel,** Librarian, BIREME (Latin American and Caribbean Center for Health Sciences Information), Pan American Health Organization, São Paulo, Brazil
Objectives: The objective of this study is to verify the representation of Literatura Latino-Americana e do Caribe em Ciências da Saúde (LILACS) as a source of information in systematic review (SR) studies indexed in MEDLINE. LILACS is the largest database that includes biomedical publications from the Spanish and Portuguese speaking countries in the Latin America and the Caribbean region.
Methods: Cardiovascular diseases are the leading cause of death in the world according to the World Health Organization, thus the authors searched for "heart diseases" in PubMed/MEDLINE. Limits were applied to publication types ("review" and "systematic reviews") and publication dates (last 5 years.) Studies that clearly stated their information sources in the methods section were selected for analysis. The authors classified a study as a SR if at least one biomedical database (MEDLINE) was searched, and a comprehensive search strategy was provided. The authors focused on four journals with the highest impact factor (IF), two core clinical journals *(New England Journal of Medicine [NEJM]* and *Journal of American Medical Association [JAMA])* and two journals in the field of cardiology *(Circulation* and *European Heart Journal [EHJ]).* This set of SRs identified in these journals was analyzed to determine the percentage of studies that included LILACS as one of the information sources. The same MeSH "heart diseases" was used to search for primary clinical trial studies in the LILACS database in the last 5 years.
Results and Conclusion: A PubMed literature search performed on December 26, 2012, following the strategy described in the methods section yielded 17,650 citations. From this, 20 citations were published in *NEJM,* 39 in *JAMA,* 163 in *EHJ,* and 39 in *Circulation,* a total of 532 citations. Of these, 69 citations (13.0%) were identified as SR (zero (0%) in *NEJM,* 9 (23%) in *JAMA,* 40 (24.5%) in *EHJ,* and 20 (6.5%) in *Circulation).* LILACS was cited in one (1.4%) study (EHJ, 2008, PMID 18523058). The same search of the MeSH "heart diseases" before PubMed limits were applied was carried out in the LILACS database, which yielded 156 citations. The scientific contribution of Latin America and the Caribbean to MEDLINE is low (1.5%). By not including LILACS as one of the information sources, studies published as SRs are at risk of developing publication bias and potentially missing relevant clinical information that could be valuable for patient.

263
Strategic Sustainability: Collaboratively Creating a Thriving Medical Library Association Δ
Amanda Horsman, AHIP, Reference Librarian, Medical Education Centre of New Brunswick, Bibliothèque Champlain, Université de Moncton, Moncton, NB, Canada; **Michelle Helliwell,** Librarian, Library and Knowledge Management Services, Annapolis Valley Health, Wolfville, NS, Canada
Objectives: The purpose was to create a strategic plan to strengthen the sustainability and relevance of the Maritime Health Library Association (MHLA) to the health library and information professionals in the Maritimes.
Methods: A survey was sent out to MHLA members prior to the strategic planning meeting, followed by an in-person strategic planning session. MHLA members were involved from the beginning and throughout the process.

Results: The project was partially funded by the Canadian Health Library Association Chapter Initiative Grant. As part of the grant, a facilitator was hired for the strategic planning process. The strategic planning meeting took place in April 2012. Following the meeting, action committees were formed to tackle recognized priorities and to create a strategic plan that will guide the chapter's activities and priorities until 2016. The fall 2012 meeting was a working meeting focusing on creating a scope of practice. Throughout this process, the MHLA president and vice-president evaluated the benefits and challenges of the strategic planning process.
Conclusions: Strategic planning sessions are important for any organization, big or small. This process will increase membership involvement and create a stronger community among the Maritime health libraries. This will also facilitate a mutual understanding our professional identity to be presented to the public and employers.

267

Regional Collaboration on Best Practices in Consumer Health Outreach

Terri Ottosen, AHIP, Consumer Health Coordinator; **Nancy Patterson,** Community Outreach Coordinator; National Network of Libraries of Medicine, Southeastern/Atlantic Region, Health Sciences and Human Services Library, University of Maryland–Baltimore

Objectives: This paper describes the creation of a secure regional collaborative space for sharing best practices in consumer health outreach.
Methods: Many libraries are active in health outreach and have received National Network of Libraries of Medicine funding for projects, exhibits, and training. Informative reports on these activities are submitted to the administration but are not shared routinely with members who could most benefit from this information for the development of future projects and outreach. From this need grew the idea of a collaborative space. Coordinators and the director of web services technology operations for the network investigated various platforms for a secure collaborative space, but none were feasible until LibGuides and CampusGuides were licensed. This allowed for discussions and a password-protected space where users can upload materials.
Results: Sharing best practices in a secure space allows for collaboration across a wide variety of institutions, including public, health sciences libraries, and community and faith organizations. Those with more experience in providing outreach can be valuable guides for others seeking to establish their own community outreach and partnerships. As budgets have been cut, it is imperative that libraries and other community organizations reach beyond their walls and provide services and health information to the underserved. Collaborative sharing builds a network of leaders with expertise in outreach and connects them with others committed to building and sustaining outreach to their community.
Conclusions: Through discussions and posting of curricula and other project details, collaboration of best practices in consumer health outreach has facilitated partnerships and networking among members of a regional medical library system. Promoting and expanding the collaborative space across the network, as well as cross-regionally, will allow great ideas and practices around the country to be shared and improved upon in the future, including the development of new partnerships and projects.

271

Evidence-Based Medicine Integration into Medicine Curriculum

Heather A. McEwen, Reference Librarian; **Rienne Johnson,** Reference Librarian; Oliver Ocasek Regional Medical Information Center; **LuAnne M. Stockton,** Course Coordinator, Department of Family and Community Medicine; **Beth Layton, AHIP,** Director, Oliver Ocasek Regional Medical Information Center; **Janice M. Spalding,** Associate Professor, Family and Community Medicine; **Lisa N. Weiss,** Associate Professor, Department of Family and Community; **David M. Sperling,** Associate Professor, Family Medicine, Department of Family and Community Medicine; Northeast Ohio Medical University–Akron

Objectives: Evidence-based medicine (EBM) content is integrated into multiple courses in the college of medicine curriculum. Future physicians must have the ability to find relevant information quickly and to critically assess the clinical relevance of the biomedical literature. Librarians work with college of medicine faculty to provide effective EBM lectures and assignments across the four-year curriculum.
Methods: EBM content is found in medical education curriculum from the M1 through the R2 year. Faculty and librarians work together to effectively integrate EBM in ways that allow students to develop as critical thinkers and lifelong learners. This integration involves the communication and coordination of multiple course directors when planning learning objectives and assignments. Librarians participate in the planning of this curriculum by acting as course directors or as participants on planning committees. In partnership with the faculty, they ensure the continuity of the EBM curriculum in a stepwise approach. Because they are involved from the beginning to the end, librarians also help faculty by suggesting appropriate student skill levels at different points in the curriculum. The impact of librarian involvement can be measured by student mastery of assignments, student evaluation of courses, and informal feedback from faculty.
Results: Librarians have increased their presence within the medicine curriculum. Librarians now serve as course director, faculty members, consultants, or assignment evaluators in eight courses or clerkships. They not only lecture on and provide assistance for searching, evaluating, and citing the biomedical literature, but they also have input into the goals and grading rubrics for the EBM content of courses and have helped to assure that the students' learning of EBM throughout the curriculum occurs in a step-wise, logical manner. Faculty and librarians have collaborated in the incorporation of new EBM assignments in the curriculum. Students in the EBM I & II courses positively evaluate librarian faculty members. Student assignments and exams provide assessment of the effectiveness of student learning. Faculty feedback about librarian involvement has been positive.
Conclusions: Interprofessional collaboration of faculty and librarians can enhance student learning. EBM is a topic that should be incorporated throughout a medical student's education, and librarians are the perfect faculty to oversee this complex, longitudinal curriculum. They have a broad view of the EBM needs of students, and, with a working knowledge of the curriculum, they can help to incorporate these topics in to lectures, classroom activities, and assignments. EBM involves lifelong learning skills that students will utilize in their future role as clinicians.

275

Redesigning an Online Public Access Catalog through Usability Testing Δ

Demetria Patrick, Technology Librarian; **Beth Layton, AHIP,** Director; Oliver Ocasek Regional Medical Information Center, Northeast Ohio Medical University–Rootstown

Objectives: In 2011, the Northeast Ohio Medical University library conducted a usability study on the new online public access catalog (OPAC). Users were observed as they navigated and searched the OPAC, followed by an interview. Data gathered helped determine how the library could improve the usability of the OPAC interface. This paper shares the process and findings of that study.

Methods: The library used a survey to recruit faculty, students, and staff participants. The survey was also used to gather data on how often participants used the OPAC. The selected participants were asked two questions during the interview that preceded the study. The study consisted of five usability tasks that required the participants to navigate and search the OPAC. They were encouraged to vocalize their actions and feedback during each task. After completing the tasks, participants were asked four questions regarding the tasks they worked through. Camtasia software was used to audio record the pre/post-usability testing interviews, verbal feedback, and computer screen activity during the testing.

Results: The new design received positive feedback from the users who participated in the usability study. Still, the users also expressed confusion and frustration as they worked through some of the steps. Findings from the usability study were divided into five distinguishable groups. The groups are: clear clutter on the initial results page; remove inconsistencies in the modify, limit, and sort search forms; add clearer clues, alerts, labels, guidelines, and instructions; develop and/or invest in list of databases and e-resources; and fix glitches in the integrated library system (ILS).

Conclusion: Library staff is making changes based on our findings. For instance, we have updated labeling, cleared excess content and removed inconsistencies. We are also planning to implement an A to Z journal list in the near future. Future studies will be used to continue to improve the usability of the new OPAC design.

279

Reducing Health Disparities through Digital Access: The Benefits of Partnership for Consumer Access

Faye D. Williams, Library Services Manager, Knowledge Center, Office of Minority Health Resource Center; **Amy Bodine,** Technical Services Librarian, Resource Center-Knowledge Center, Office of Minority Health; Department of Health and Human Services, Rockville, MD

Objectives: Successfully launch and promote an online public access catalog (OPAC) of library holdings that, since 1987, was developed to provide technical, consumer, low literacy, and multilingual health publications to ethnic and minority populations at the national level. Additionally, this catalog will link out to scanned, public domain full-text documents housed in an international digital archive. Setting/Populations/Resources: National information center serving minority populations.

Methods: Migrate an in-house library catalog to a web-based system, then launch a consumer-friendly, 508-compliant catalog search window on an existing public Internet website. Presentation will highlight software used, technical challenges, database content for consumers, digital scanning efforts to preserve consumer publications for diverse populations, and outreach and publicity efforts to promote the service to public libraries, general consumers, and health sciences libraries.

Results: The OPAC was successfully launched in 2011. To date, 33% of the collection has been moved to digital access. URL links to reports are available to the public via the OPAC, and select materials saved on the Internet Archive website have had over 3,300 downloads by the general public. Consumer-level, public domain materials aimed at a diverse audience continue to be digitally scanned, linked within the catalog, and submitted to this national archive.

Conclusions: Cooperative work with the Library of Congress FedScan service allows the leveraging of limited staff resources and has accelerated the provision of otherwise difficult to locate minority health literature.

283

Help! Graduate Assistants Have Taken over Our Library: Preparing Library Students for the Job Market

April J. Schweikhard, Medical Librarian; **Lynn Yeager, AHIP,** Coordinator, Education and Outreach; Schusterman Library, University of Oklahoma–Tulsa

Objectives: To explore how the University of Oklahoma–Tulsa Schusterman Library prepares library school students for future employment through a graduate assistant program. New graduates must possess a diverse set of skills in order to be competitive candidates for professional positions. The graduate assistant program integrates students fully into every aspect of library workflow to enable the development of these required proficiencies.

Methods: The Schusterman Library serves the University of Oklahoma–Tulsa, a blended campus with health sciences and graduate academic programs, including a library school. The library has utilized students in a variety of roles since 2002 and presently employs seven as library graduate assistants. In the current climate of staff cutbacks and budget shortfalls, new library professionals must graduate with a rich set of skills and experiences to be competitive as future health sciences information professionals. The graduate assistant program ensures that all students receive training and opportunities to develop resumes required for challenging professional positions. The program centers around four pillars of success: reference desk experience, training in all departments, library committee work, and professional development. This paper details the experiences offered for each pillar, explains how the program is implemented, and provides examples of success.

Results: Since 2002, the Schusterman Library has employed nineteen graduate assistants concurrently enrolled in the University of Oklahoma's School of Library and Information Studies. Eight are current master's of library and information science (MLIS) students, two are recent MLIS graduates presently interviewing for professional positions, two are MLIS graduates with technical positions in other libraries, and eleven are MLIS graduates with professional library positions. In 2012, the Schusterman Library employed a total of nine graduate assistants. As part of the program, these graduate assistants were encouraged to participate in professional development activities. During this one year, the graduate assistants attended thirty-eight continuing education courses and training workshops, participated in twenty-two committees, prepared eighteen presentations and demonstrations, attended eleven conferences, received seven awards, and produced two publications.

Conclusions: The Schusterman Library's graduate assistant program develops library school students into competitive candidates

for health sciences information professionals. Upon completion of the program, these students have acquired a diverse set of skills and experiences that promote their future careers as library professionals.

287

Foreign Language Consumer Health Information: Collaboration with Public Libraries Δ

Pamela S. Bradigan, AHIP, Director and Assistant Vice President; **Lynda J. Hartel, AHIP,** Associate Director, Knowledge Integration; **Abigail Jones,** Consumer Health Librarian; Health Sciences Library, Ohio State University–Columbus

Objectives: Developed at the Ohio State University (OSU) over 6 years ago, Health Information Translations (HIT) is a database containing more than 3,000 consumer health resources available in English and 17 other languages. Today, HIT documents make up approximately two-thirds of the foreign language content in MedlinePlus. The overall goal of this project was to assess and build awareness of HIT and evaluate the overall consumer health information needs of multilingual health consumers and librarians at Ohio's 3 largest metropolitan public libraries.

Methods: Researchers surveyed librarians from three large public library systems in Ohio: Cincinnati and Hamilton County, Columbus Metropolitan, and Cuyahoga County, Cleveland. The online survey assessed the following: (1) recommended local, regional, and national English and foreign language consumer health resources; (2) foreign languages requested and used most often in these library systems; (3) specific health subjects requested by these consumers; and (4) professional development needs and training preferences of the public librarians in these systems.

Results: More than 134 public librarians, with diverse experience and positions, participated in the survey. Respondents identified MedlinePlus as the resource used most often for general consumer health information as well as foreign language content. Resources from EBSCO, Gale, the Mayo Clinic, and WebMD were also noted. Very few respondents indicated use of HIT, reinforcing the need for product marketing. In alignment with Ohio's changing demographics, Spanish, Somali, and Arabic-speaking customers were common, while most-requested subjects included pregnancy, infant care, and medications. Respondents indicated that foreign language health information requests are increasing, and they ranked skills needed to serve this group as very important for their professional development. Respondents requested online workshops regarding database searching and services offered by area academic and hospital libraries.

Conclusions: Following survey analysis, the OSU Health Sciences Library (HSL) consumer health librarian conducted several online training sessions for public librarians and began participating in an annual state-wide information expo for public librarians. Resources available through HIT (and MedlinePlus) are highlighted in these programs. Topics and languages identified as most often requested in the survey were added to HIT in 2011–2012. Future collaborations between the OSU HSL and area public libraries are under consideration.

291

Evaluation of a Clinical Rounding Service Δ

Mary Edwards, AHIP, Distance Learning and Liaison Librarian, Biomedical and Health Information Services, Health Science Center Libraries; **Michele Tennant, AHIP,** Assistant Director, Biomedical and Health Information Services, and Bioinformatics Librarian, Health Science Center Libraries and UF Genetics Institute; **Linda C. Butson, AHIP,** Consumer Health and Community Outreach Librarian, Biomedical and Health Information Services, Health Science Center Libraries; **Beth Auten, AHIP,** Reference and Liaison Librarian, Biomedical and Health Information Services, Health Science Center Library; University of Florida–Gainesville; **Gretchen Kuntz,** Director, Borland Health Sciences Library, University of Florida–Jacksonville

Objectives and Research Question: This poster describes evaluation of a clinical rounding information service. The introduction of tablet computers provided the opportunity to assess the efficiency of point-of-need searching, compare the effectiveness of and clinician satisfaction with the service pre- and post-tablet implementation, and evaluate and compare tablet capabilities.

Methods: Using two tablet platforms, an iPad 2 and Motorola XOOM, to provide point-of-care information services this project evaluates the impact of tablet computers on rounding. Evaluation methods assessed the usefulness of tablets in answering real-time questions and the effectiveness of the clinical rounding information service. This project utilized a mixed methods approach; quantitative and qualitative data collected included information from the clinicians and the librarians providing the service. Data from the clinicians included information about the efficiency and quality of the service and the clinicians' perceptions of how the tablets influenced service provision. The survey also asked clinicians to self-assess how the librarian provided information influenced patient care. Data collected from the librarians includes information about the usability of the tablets and their impact on service provision.

Results: During the first round of assessment, the surveys were distributed to 25 attendings and residents with 11 responses received, for a response rate of approximately 44%. Ten respondents rounded with a librarian and 8 more than once. Clinicians indicated that the information provided by the librarian was used for various purposes including teaching, patient care, and morning report. Results from the librarian evaluation of 2 tablets indicates that both tablets performed relatively equally, though the Android tablet had connectivity problem, primarily because a lack of a unified VPN application. Results of the follow-up assessment are not yet available but will be reported in May.

Conclusions: Data from this case study demonstrate that a clinical rounding service provided to the department of pediatrics is valued by the clinicians. We learned from the survey responses and tablet evaluation that the tablets are beneficial for service provision and feedback from the clinicians with whom we rounded provide valuable recommendations for improving the service. Our clinical rounding information service will continue, and we will continue to assess the value and quality of the service. Assessments will be ongoing and designed to continually measure user satisfaction and investigate other questions related to providing a clinical rounding service.

295

Creating Interdependency between the Curriculum and the Library Website

Lisa D. Travis, AHIP, Medical Librarian, Dr. Lon and Elizabeth Parr Reed Health Sciences Library, Lincoln Memorial University, Harrogate, TN

Objectives: The medical library website provides annotated links to online, freely available interactive games, simulations, tutorials, and quizzes that support the curriculum for undergraduate and graduate health sciences programs. Instructors may provide these links within online courses to inform students of engaging resources that they may use to learn relevant materials and to test their knowledge.

Methods: The annotated links are relevant for athletic training, kinesiology, medical laboratory science, nursing, osteopathic medicine, physician assistant, veterinary technology, and other programs. Examples include Anatomically Correct: The Online Cat Dissection, Blood Typing Game, Human Anatomy Online: An Interactive Tutorial and Reference, Six Second ECG, and Virtual Stethoscope. The resources have been collected over the course of ten years by the medical librarian, and the librarian has received recommendations and input from faculty, staff, and students. Chat sessions and online comments have proved that Internet users worldwide have found the links to be helpful. The resources have been used for a wide variety of purposes and in a variety of settings, which include live lectures and required assignments. Resources have also been listed within syllabi, LibGuides, and online classroom management software. These links have created an interdependency between faculty and the medical library.
Results: The presentation will review the literature on the use of games and online simulations in undergraduate and graduate health sciences programs and will describe how the links are organized in the medical library's WordPress-based website. It will also highlight the most popular online games and resources that have been used over the past ten years in two different institutions. The paper will also provide examples of use of the resources within the curriculum and provide information on the new, ongoing column in the *Journal of Electronic Resources in Medical Libraries (JERML)* that will highlight links for a particular topic or audience.
Conclusions: As more courses are offered online, interactive resources may be used to keep students engaged with the content. It is the author's hope that more libraries will provide similar links to create interdependencies within their institutions. Meeting attendees are welcome to copy and paste the annotated links for their own use.

299

Integrating into the Biology Curriculum: Preparing Pre-Health Professional Students to Manage Biomedical Sciences Information

Jodi L. Philbrick, Course Coordinator, Health Informatics Program; **Ana D. Cleveland, AHIP,** Regents Professor and Director, Health Informatics Program; College of Information, University of North Texas–Denton

Objectives: To provide an overview of how library and information sciences faculty have integrated an online course in biomedical sciences information management into the biology curriculum. To discuss how pre-health professional students are taught information skills for their future careers through the course content. To present an assessment of the student learning outcomes of the course.
Methods: As a case study, the online course, "Biomedical Sciences Information Management," prepares undergraduate pre-health professional students with an information toolkit that they can use in their future careers. The course is offered through the department of biological sciences, but it is taught by faculty in the department of library and information sciences. It includes concepts and practical skills in information management in the context of biomedical sciences. Students learn basic concepts in information organization and retrieval and bioinformatics. Information resources related to biomedical sciences are introduced and discussed. Emphasis is placed on developing the information skills of the students through hands-on activities. Experts in bioinformatics participate in synchronous chats with the students, and they share how they use information in their work environments. Students have the opportunity to provide feedback on the course through informal feedback and formal evaluations.
Outcome: Hundreds of health-related pre-professional students have gained an understanding of biomedical sciences information management and are prepared for their future careers in information-driven health care environments.

303

A Look at the Future of Libraries Δ

Nakia Joye Woodward, Senior Clinical Reference Librarian; **Rick Wallace, AHIP,** Assistant Director; **Katherine Wolf,** Clinical Librarian; Quillen College of Medicine Library, East Tennessee State University–Johnson City

Objectives: An important issue in the field of librarianship is what we will look like in the future. Prognosticators' predictions range from doomsday to utopia. This poster seeks to identify what the perceptions of the future of libraries are from the published literature. The future of medical libraries in particular will be examined.
Methods: This research will analyze the literature published in the field of library science. The literature will then be qualitatively analyzed to determine themes about the perceptions of the future of libraries and librarians. NVIVO qualitative analysis software will be utilized to analyze the data for themes and trends. Three coders will independently code the data.
Results and Conclusions: A review of the literature paints a cautiously optimistic picture of the future of medical libraries and librarians. The general perception appears to be an ever increasing involvement in the community outside the walls of the medical library. With expanding collaborative technologies, medical librarians have both the challenges and opportunities to evolve to fill a great need in medical knowledge management and point-of-care resources.

307

Tomato or Tomahto? Helping Medical Librarians Collaborate with Science Librarians to Improve the Value of Libraries

Melissa J. Harvey, Technology and Communication Coordinator, National Network of Libraries of Medicine, Middle Atlantic Region, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

Objectives: After twenty years in science libraries, returning to medical librarianship has proven to be an interesting change working in a regional medical library. I intend to demonstrate how both of these fields are doing comparable work burgeoning into new arenas such as e-science, translational science, data librarianship, embedded librarianship, and so on.
Methods: Both fields of librarianship primarily network within their respective fields, not necessarily reaching out to other specialties to learn best practices. I will offer suggestions for how both fields can collaborate to accomplish the vital task of providing important services to our communities and demonstrating the value of libraries as we move forward in this new century.

Poster Session 3

Tuesday, May 7, noon–1:00 p.m.

HCC, Level Two, Exhibit Hall

3

Patient Education Outreach: How to Meet the Informational Needs of Diverse Cultures and Demographic Groups

Carlita Anglin, Family Health Librarian, Hassenfeld Center Patient Library; **Sallie Willcox,** Coordinator, Patient Family Resource Center; **Mindy Schanback;** NYU Health Sciences Libraries, New York University–New York

Objectives: To encourage positive health behaviors by providing exhibits, demonstrations, and informational resources in multiple languages in a fun, relaxed setting. To develop library-hospital staff partnerships in a variety of disciplines, increasing referrals and expanding the library's relevance in the organization. Location: New York University Langone Medical Center (NYULMC) is a large metropolitan academic medical center that serves a diverse, multicultural patient population.

Methods: Because of the size and diversity of the hospital community, the information, education, and material needs of the patient population were identified and broken into categories. To better reach out to NYULMC's diverse, multilingual, multicultural community, separate activities such as health fairs showcasing hospital services, health and wellness lectures, cooking demonstrations, blood pressure screening, learning games for children, and off-site lectures were planned at different hospital locations and aimed at specific demographic groups. Despite the array of events that NYULMC's Consumer Health Libraries participated in or created in 2012, certain elements remained constant: theme creation; budgeting; recruitment of speakers and presenters; coordination with hospital staff; purchase of give away items, food, and patient education materials; and publicity.

Results: During the course of a year, the consumer health libraries either established or played a major part in coordinating these events: "Patient & Family Education Week," which took place at 6 hospital locations and was attended by more than 850 people; "Back to School Day," a program of health and wellness education for children and families during which a hundred backpacks full of donated school supplies were disseminated to children, many who could not otherwise afford them; the "Heart Health Fair," where the consumer health librarians demonstrated MedlinePlus and answered numerous reference questions; and off site programs instructing consumers.

Conclusions: Health fairs and other special and educational events offer patients, their families, community members, and hospital staff culturally sensitive, current, and authoritative health and wellness information in multiple languages. They contribute to patient compliance, satisfaction, retention, and recruitment. Additionally, these events boost visibility and knowledge of the consumer health libraries and other NYULMC services.

7

Medical Librarian's Contributions to Evidence-Based Health Policy Decision Making in California

Min-Lin Fang, Education and Information Consultant, Library and Center for Knowledge Management, University of California–San Francisco

Objectives: The objective of my project was to report on the success of partnerships between medical librarians and health policy researchers to support evidence-based health policy.

Methods: Medical librarians completed literature searches of published and unpublished resources. Multidisciplinary faculty researchers across campuses compiled the best available evidence yielded by the literature search into systematic reviews and offered their independent analysis for health policy legislators. The legislators then made a decision based on the evidence.

11

Planning Educational Outreach with Future Researchers

Kathryn M. Houk, Information Services and Research Librarian, Hirsh Health Sciences Library, Tufts University, Boston, MA; **Gail Y. Hendler,** Associate Provost and Director, Health Sciences Library, Loyola University Chicago, Maywood, IL

Objectives: This poster describes a student-driven approach for initiating educational outreach to biomedical researchers. Student leaders requested increased service from the library to facilitate their research and learning. Working closely with future researchers, faculty, and deans, a program of workshops was designed to meet the critical information needs of a previously underserved population. Stakeholder feedback throughout the process guided workshop design.

Methods: Focus groups and individual conversations with student library advisory committee representatives revealed that the biomedical students were not only underserved, but had a program of study that varied much more from our medical and dental programs. It was therefore decided that the students themselves were the best source of information for designing future outreach. Basic needs like library orientations, PubMed, Web of Knowledge, and reference management tools were determined to be of critical importance and where we focused our first efforts. Suggestions and comments made by students supported the workshop schedule that we then presented to the deans of the biomedical school. They generously posted links from the school's website to a toolkit of resources and suggested preferred times to present certain topics. After initial successes with the graduate students, the dean suggested contacted the postdoctorate coordinator to continue developing outreach.

Results: Nine workshops aimed specifically for graduate students and three for postdoctorates were given between January 2012 and November 2012. All workshops covered PubMed, Web of Knowledge, and one of two citation management programs: RefWorks or EndNote. All forty-six workshop participants completed workshop evaluations with feedback that was overwhelmingly positive. Nearly half of the respondents requested additional workshops on information resources and an almost equal number of responses expressed gratitude for instruction in research and information skills.

Conclusions: Partnering with the graduate student council helped the library to establish a presence in the Sackler School of Graduate Biomedical Sciences and led to the development of positive and productive relationships with students, faculty and postdoctoral fellows. The success of using a student-driven plan to design and deliver educational outreach ensures an ongoing library presence in information support to a traditionally underserved population on campus. Further outreach goals will implement learner feedback to include additional workshops on various topics of cross-disciplinary value, such as journal and article ranking metrics, RSS, and email feeds paired with mobile apps to read and organize them, and bioinformatics help through an online research guide and possible workshop.

15

Playing It Safe: Validating Search Filters for Adverse Events Δ

Kelly Farrah, Information Specialist; **Monika Mierzwinski-Urban,** Information Specialist; Information Services, Canadian Agency for Drugs and Technologies in Health, Ottawa, ON, Canada

Objectives: Little formal testing has been done to assess the performance of search filters for retrieving database records on adverse events. This project aims to create a validation set of articles on adverse events and to use this set to test the effectiveness of adverse events filters for MEDLINE and Embase.

Methods: A validation set of articles related to adverse events will be created, using: (a) included references from rapid systematic reviews related to safety and (b) a random sample of records from *Reactions Weekly.* If articles from these two sources are indexed in MEDLINE and Embase, they will be included in the testing set. A methodology specialist will be consulted to determine appropriate sample size. The performance of three previously developed filters will be tested. These include a broad filter, a narrow filter, and a filter targeted to devices and procedures. The filters' sensitivity will be tested by determining how many articles from the testing set they retrieve. The precision of the filters will be estimated by comparing the total number of articles the filters retrieve out of all possible database records.

Results: For the initial validation set, 631 relevant articles were identified from 131 rapid reviews on the safety of drugs, devices, and procedures. For articles on drug topics, the highest sensitivity in both databases was achieved using the broad filter, with floating subheadings: 82% in MEDLINE and 94% in Embase. For non-pharmacological topics, all search filters tested were less effective at capturing relevant articles. In both MEDLINE and Embase, the filter targeted to devices and procedures achieved approximately 56% sensitivity. The addition of floating subheadings increased the sensitivity in MEDLINE to 71% and only modestly increased the sensitivity in Embase (62%). Testing the precision of these filters is still in progress. The sensitivity results from these tests will be used to determine an appropriate sample size for the validation set using a random sample of records from *Reactions Weekly.*

Conclusions: The adverse events filters tested may be most useful for searches where comprehensiveness is not essential or as an adjunct to systematic searches. As all filters tested were less effective at retrieving articles on non-pharmacological topics, different approaches may be required when searching for safety information in non-pharmacological topics versus pharmacological topics. Further research is needed to determine why these filters failed to identify articles from the validation set and whether sensitivity can be improved while maintaining adequate precision.

19

Playing Online Interactive Games for Health Education: Evaluating Their Effectiveness Δ

Deidra Woodson, Metadata and Digitization Librarian; **Dee Jones, AHIP,** Head, Cataloging; **Donna F. Timm, AHIP,** Head, User Education; Medical Library, Louisiana State University Health Sciences Center–Shreveport

Objectives: Health sciences library faculty created a consumer health web portal, healthelinks (www.healthelinks.org) that includes a children's health section, healthelinks for kids. The children's portal provides access to authoritative health information and health-related online interactive games. In an effort to update the games section, librarians wanted an objective method for selecting age-appropriate online games with a health education focus.

Methods: Medical librarians searched the Internet for online games designed for preschool and early elementary-aged children that provided lessons on exercise, nutrition, and sanitation with a specific focus on germs. These topics were chosen because they were emphasized in story hours conducted by medical library faculty as part of a children's health program and partnership with the local public library. For this study, the authors tested and evaluated the selected games and assigned points based upon difficulty level, educational value, trustworthiness of the site, and presence of advertisements. The point system was established after an initial assessment of health-related games available online. Games with the highest scores were then analyzed for reading level using the Flesch-Kincaid grade level and Flesch reading ease tests. The text and instructions of each game were entered into Microsoft Word to determine these scores.

Results: Of the 47 games that were evaluated, 23 scored at least 10 out of a possible 12 points. The low-scoring games were eliminated due to a high level of difficulty, minimal educational value, a lack of authoritativeness, or distracting advertisements. After reading level tests were applied, only one game was excluded because it scored at the seventh grade level with only a moderate reading ease score.

Conclusions: Twenty-two games met the criteria and were added to the website. Improvements could be suggested to game developers based on the positive characteristics of the selected games. A future study might include a focus group of young children to test the games and provide feedback.

23

Use of the Electronic Health Record (EHR) to Identify and Eliminate Health Disparities: An International Look Δ

Patricia J. Devine, Network Outreach Coordinator, National Network of Libraries of Medicine, Pacific Northwest Region, Health Sciences Library; **Jim Anderson,** Physician Assistant, Department of Anesthesiology and Pain Medicine; University of Washington–Seattle

Objectives: With the rapid development of health information technology has come the potential to use the electronic health record (EHR) to improve and standardize care of populations traditionally suffering health inequities. What do the data show? Is there evidence indicating that EHRs actually impact health disparities? Will the promises of disparities reduction through EHRs be realized? We will determine ways in which the electronic health record is being used to identify and address health disparities.

Methods: A literature review will be conducted and results analyzed to show the ways in which the electronic health record (EHR) can be used in hospital and clinical settings to identify and alleviate health care disparities.

27

Providing Information in an Interdependent Environment

Jeanne Marie LeBer, AHIP, Associate Director, Education and Research; **Abby L. Adamczyk, AHIP,** Research Librarian; **Peter Stevens Jones, AHIP,** Research Concierge and Informationist, Center for Clinical and Translational Science; **Mary M. McFarland,** Information and Technology Consultant; **Jean P. Shipman, AHIP, FMLA,** Director; Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

Objectives: Integrating two new positions within an existing reference department at the Spencer S. Eccles Health Sciences Li-

brary offered challenges and opportunities for reevaluating roles and assessing user needs. The two positions include a research librarian and a research concierge with the Center for Clinical and Translational Science. The head of reference is relatively new to her position but has decades of experience and expertise in providing service.
Methods: It was essential to examine roles, responsibilities and areas of overlap in these three positions to ensure a collaborative, beneficial, and productive working environment. Public services team members evaluated current roles based on a self-assessment and met regularly to define responsibilities and to share knowledge and skills. It was equally important to assess library user needs in order to ensure that information service excellence and relevant support was being offered. A survey instrument was developed using REDCap, which was beta tested with select users, revised, and submitted for an internal review board (IRB) exemption.
Results: As a result of the self-assessment, team members meet regularly to ensure service excellence without duplication of effort. Referral is expedited based on defined expertise of the three individuals within the positions and established protocol. The approved survey was distributed electronically, and responses will be tabulated. The authors expect survey results to indicate that services and resources are meeting user needs, but that some service gaps exist.
Conclusions: The authors anticipate library user responses to survey questions will validate that appropriate reference and research services and resources are being provided and that they are valued and well utilized. Identified gaps in services will inform improvement and the formation of new services, if warranted. Survey user comments will allow the team to dynamically refine their roles and responsibilities to best meet user indicated needs. The self-assessment discussions and user survey are expected to reinforce that these three positions function interdependently as they enhance and advance the provision of timely and relevant information services.

31

Publication Rate of Poster and Paper Abstracts Presented at the Canadian Health Libraries Association/Association des bibliothèques de la santé du Canada Annual Meetings from 2004–2009 Δ

Christine E. Shaw-Daigle, AHIP, Hospital Librarian; **Andrea Szwajcer, AHIP,** Clinical Librarian; Carolyn Sifton Helene Fuld Library, St. Boniface Hospital, University of Manitoba–Winnipeg, Canada

Objectives: To determine the publication rate of Canadian librarians from posters and papers presented at Canadian Health Libraries Association/Association des bibliothéques de la santé du Canada (CHLA/ABSC) annual conferences (2004 to 2009) and the factors influencing presenters' decisions whether or not to publish.
Methods: The cohort was selected using the conference proceedings from the years 2004 to 2009. A total of 200 paper and poster abstracts were identified. A literature search for publications was conducted in PubMed, CINAHL, and LISTA and independently checked for accuracy by random sample. The publication *Journal of the Canadian Health Libraries Association (JCHLA)* was hand-searched from 2004 to present. A survey was sent to first authors and response based on the first paper or poster presented by chronological order in the year range. In addition to publication decision questions, respondents were asked to provide a citation if they had published as a check against the search. A bibliometric analysis of the resulting citations was performed including the overall rate of publication from abstracts, the time to publication, journal impact factor, and type of journal such as peer review, non-peer review, open access, or other form of publication such as blogs.
Results: There was a 51.85% survey response rate. The literature search publication rate was 31.5%; the rate determined by the survey was 32%.While this rate is equivalent to Harvey and Wandersee study, it is below the average rate for other professional medical associations. In the authors' survey, lack of time was the main reason for not publishing. The second most common reason was a belief that the abstract was unworthy of further publication. The most common choice for publication was the *JCHLA*. Survey respondents reported publishing in a peer-review journal 56% of the time. The majority of medical librarians publishing are from the academic area with 59% of the respondents from universities or university hospitals. There was no difference in publication rate by years in the profession.
Conclusions: While knowledge translation includes both presenting at professional meetings and publishing, it is publishing that documents findings and provides an evidence base for the profession. While equivalent to other library disciplines compared to other medical disciplines, the publication rate for CHLA/ABSC conference presenters appears to be inhibited. The decision to publish is influenced by many factors including time and author's confidence. Further research is required to measure continuing education initiatives and other supports encouraging librarians to research and publish to determine if there is a positive impact on publication rate.

43

QR You? Using Quick Response (QR) Codes to Provide Access to the Medical Library's Electronic Resources

Megan Curran Rosenbloom, Head, Metadata and Content Management, Norris Medical Library, University of Southern California–Los Angeles

Objectives: To bridge the gap between users primarily focused on the library's physical collection and those comfortable with our electronic offerings, librarians built awareness of the available electronic resources at the library through the strategic use of quick response (QR) codes throughout the library's physical space.
Methods: A signage campaign in the library introduced the concept of QR codes to the patrons. Then librarians put QR codes in the stacks to show shelf-browsing users the electronic resources available in the National Library of Medicine (NLM) subject area represented on the shelf. Finally, QR codes were introduced into physical books for which the library has electronic access available, and a YouTube video was created to promote this new service. Through these methods, physical users of the library space were put in digital, mobile contact with the library's electronic resources. QR code usage will be tracked through Google's short URL administration page to monitor the efforts' effectiveness.
Results: Despite librarians' diligent attempts to engage users to use QR code technology, the QR codes in the library garnered dismal usage. After 12 months, of the 95 physical books outfitted with QR codes leading to the e-book version, only 23 received hits, with 57 hits overall including librarian testing.
Conclusions: This experiment shows that our library users are not engaging with QR code technology. One driving factor in this failure to engage is the fact that many report not using QR codes in their personal lives. The QR code project has since been abandoned. Our librarians plan to keep looking for a more integrative

technology, possibly a form of augmented reality, that becomes ubiquitous enough in the near future to explore using it as a replacement for QR codes in providing access to our electronic resources via cues in the physical world.

47

Reaching out to a Regional Public Health Workforce Δ

Sheila L. Snow-Croft, Public Health Coordinator, National Network of Libraries of Medicine, Southeastern/Atlantic Region, Health Sciences and Human Services Library, University of Maryland–Baltimore

Objectives: Develop and assess a comprehensive outreach program for the public health workforce and librarians who support them with the goal of increasing understanding and usage of quality resources, health literacy, and evidence-based public health.

Methods: Create classes and training with a public health focus. Includes reaching public health workers with many disparate tasks, introducing free resources from the National Library of Medicine and other quality organizations, furthering health literacy and the practice of evidence-based public health. Develop asynchronous distance education opportunities, helping public health workers understand the importance of research and the availability of resources. Explore options for providing continuing education contact hours (CECH) for health education specialists to be either a certified health education specialist (CHES) and/or a master certified health education specialist (MCHES). Attend and exhibit at relevant public health conferences, networking and introducing attendees and presenters to available resources. Increase funding opportunities for public health-focused projects, increasing awareness and usage of quality resources in an effort to further both health literacy and evidence-based public health.

51

Regional Medical Campus Libraries: A Survey of Southeastern Regional Medical Campus Libraries Δ

Sandy I. Oelschlegel, AHIP, Director and Associate Professor, Preston Medical Library; **Eddie Moore,** Designated Institutional Official and Associate Dean; **James J. Neutens,** Dean; Graduate School of Medicine; University of Tennessee–Knoxville

Objectives: To determine the medical library services available to students of regional medical center locations in eight southeastern states.

Methods: The Liaison Committee on Medical Education (LCME) accreditation requirement is that, on a Regional Medical Campus (RMC), the curriculum, methods of evaluation, and student services must be equivalent to that for the main campus. This includes student library services as stated in LCME Educational Resources (ER) 7, ER-11, ER-12, Educational Program for the MD Degree (ED)-4, and ED-9. As of March 30, 2012 there were eighty-five Group on RMC locations in 33 states located at 49 institutions. Of those, 20 were located in 8 southeastern states, with 10 institutions listed as the home LCME accredited medical school. This poster will review RMC libraries in the southeastern states of Alabama, Florida, Georgia, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. A telephone survey of 20 southeastern state locations was conducted in April 2012. All libraries responded in varying degrees to the survey of 10 questions.

Results: Of the 20 libraries in the survey area, 15 had a library on site at the GRMC location, 13 of those had librarians with a professional degree from an American Library Association (ALA)-accredited school. In 9 of those locations, the professional librarians were faculty. Library reporting varied from various academic dean titles, the director of a larger medical library, and the chief executive officer of the hospital. The number of weekday staffed hours (before 5:00 p.m.) varied from 0 (no library) to 47.5 hours. Staffed evening hours (after 5:00 p.m.) were available in 11 locations.

Conclusions: This survey illustrates that the status of library services and resources varies among southeast RMCs. While all students have access to online resources at all locations, not all locations have physical library space. The staffing credentials and models, and hours of operation vary widely. The requirement by LCME to ensure medical library services are equivalent to the home institution is interpreted differently by institutions. This study did not address the potential role, if any, of a possible negative impact of variances in LCME library requirements on the learning environment for students on RMCs.

55

Regional Medical Library-Sponsored E-Science Activities: A Qualitative Survey and Lessons Learned

Raquel Abad, Health Sciences Librarian, Blaisdell Medical Library, University of California–Davis, Sacramento, CA

Objectives: To determine, by National Network of Libraries of Medicine (NN/LM) region, the extent of participation in Regional Medical Library (RML)-sponsored activities addressing e-science, the structure of these activities, and the effect, if any, they have had within their region. The project was limited to activities occurring during the current 2011–2016 NN/LM contract period.

Methods: The associate director (AD) of each NN/LM RML received, via email, the same letter and qualitative survey. After receiving all surveys, follow-up conversations were held with 5of the ADs (63%) as they included contextual information critical to understanding their survey responses and regional activity.

Results: All regions (100%) indicated e-science outreach activity, the form of which greatly varied. While many regions (6) participated in hosting and/or sponsoring educational events, others supported e-science in a plethora of other ways. Moreover, a different survey question highlighted that each region is planning to sponsor future e-science-related activities; again, the form of these greatly varied among regions. Valuable lessons regarding the research process and pertaining to the RMLs were learned throughout the course of this project. These lessons will be detailed in the poster.

Conclusions: The author concludes that, in spite of the project objectives, the more interesting question is, "What form are the RML e-science outreach activities taking?" Every RML is participating in e-science support activities; however, the form and structure of these activities varies greatly. The author has learned that the RMLs are not strictly top-down organizations, and therefore, their activities will strongly reflect the interests of their regional membership, in other words, what kind of activity best serves the region and its network members?

59

Regulatory Changes and Animal Alternatives Consideration in the United States

Mary W. Wood, Librarian, Carlson Health Sciences Library; **Lynette Hart,** Professor, School of Veterinary Medicine; University of California–Davis

Objectives: Guidelines and regulations regarding animal use in research, teaching, and testing emanate from several government agencies and humane organizations, the most influential and

wide reaching being the US Department of Agriculture (USDA), National Institutes of Health (NIH), and Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC). In the past year, all three have modified their measures, thereby affecting all those associated in any way with animal research. It is vital for research institutions to understand the implications of the changes, and it remains incumbent on all involved to guarantee both animal welfare and regulatory compliance.
Methods: The USDA, NIH, and AAALAC have all made significant changes recently in their animal welfare-related expectations and regulatory requirements, immediately affecting the individual research scientist and the institution's animal care staff. Forefront among the changes are the updated *USDA Animal Care Resource Guide,* the adoption and implementation by NIH of the *Guide for the Care and Use of Laboratory Animals, 8th edition,* and AAALAC's recent adoption of three resources to be used as standards for animal care program evaluation. Librarian awareness of and assistance with this regulatory and therefore foundational aspect of biomedical research is valuable and arguably essential.
Results: Every research facility that uses animals (other than rats, mice, and birds), receives NIH funding, and/or has AAALAC accreditation must also have an institutional animal care and use committee (IACUC). The IACUC reviews each proposed animal use protocol and inspects every animal laboratory and facility. Membership on this committee is predominantly research scientists and animal care staff. Joining this committee is one way for a librarian to participate and significantly contribute to the institution's research mission.
Conclusions: This poster will outline the recent regulatory changes, how these changes relate to animal welfare, animal care, and the 3Rs, and how librarians might play a part.

63
Consolidation of a Health Sciences Library and an Academic Library under One Organizational Structure Δ
Brenda L. Seago, Director, Libraries, Robert B. Greenblatt, M.D. Library, Georgia Regents University–Augusta
Objectives: Two universities, an academic and health sciences university, were mandated to consolidate and merge. This meant the libraries had to be consolidated under one organizational structure to create a fully populated, consolidated organization chart. In addition, it was necessary to reconcile disparate policies and plan for shared faculty governance, as well as address the issue of tenure for librarians.
Methods: The library work team (LWT)—consisting of the interim director and incoming director of the health sciences library, the director of the academic library, business managers from both libraries, and the head of the reference/education departments at both libraries—met weekly. The responsibilities of the LWT were to craft a consolidated organization chart, address accreditation issues, reconcile policies, create a new faculty governance structure, plan for the combined libraries website and consolidated online catalog, and work with publishers and vendors to combine collections, as well as make decisions related to promotion and tenure for librarians.
Results: Weekly status reports were submitted to the Consolidation Action Team (CAT), the group overseeing the entire consolidation of the two universities. Critical issues were identified by the LWT and elevated to the CAT for decisions. The LWT will serve as the leadership team for the consolidated libraries.
Conclusions: Georgia Health Sciences University and Augusta State University were officially consolidated on January 8, 2012, following the Southern Association of Colleges and Schools (SACS) acceptance of the prospectus for change and the vote of the Georgia Board of Regents.

66
Contribution of Librarians to a Fellowship in Academic Medicine Program
Heather A. McEwen, Reference Librarian; **Rienne Johnson,** Reference Librarian; Oliver Ocasek Regional Medical Information Center; **Ellen Whiting,** Associate Director, Faculty Development, Department of Family and Community Medicine; Northeast Ohio Medical University–Rootstown
Objectives: The Fellowship in Academic Medicine (FAME) is an interprofessional, year-long faculty development program for clinical and nonclinical educators to develop knowledge, skills, and scholarship in teaching and conducting research. This program brings together individuals from diverse specialties and institutions. Fellows participate in education or research tracks. Librarians provide literature search instruction and support for fellows as part of their required curriculum.
Methods: Two librarians provided instruction in literature searching, EndNote Web, and MyNCBI during a three-and-a-half-hour session for a united group of teaching and research fellows. Because the fellows have unique learning needs, they were surveyed prior to the session to determine their skill and comfort levels searching literature databases. They also were polled for the topics related to their required scholarly projects and individual learning needs. A library guide was created for use during and after the session. It included links to relevant databases, tutorials for the databases, and links to online resources. A session evaluation form was completed by participants and their feedback will be used to improve future sessions. Contact information for the fellows' local hospital librarians was provided, but Northeast Ohio Medical University (NEOMED) librarians also are available for one-on-one assistance to fellows researching their scholarly projects.
Results: Post-session evaluation consisted of a Likert scale survey with 3 questions rated from 1 (strongly disagree) to 5 (strongly agree). Participants reported that they were able to demonstrate at least 1 search strategy, utilize tools to keep track of searches and references, and felt that they would be better able to collaborate with a librarian for future searches. Each question was rated 3.8 or higher by teaching track and research track fellows. They have a greater awareness of a variety of library databases. Comments will be utilized in the planning of the 2013 session.
Conclusions: Participants gained experience searching databases and finding journal articles relevant to their FAME project. They can also now save search results and references for future use. Fellows will also be better prepared to collaborate with their hospital or academic librarian. The ability to find and evaluate the literature plays a critical part of their final project and their future research.

67
Reviving Non-Curriculum Teaching Δ
Rikke Sarah Ogawa, AHIP, Research, Instruction and Collection Services Team Leader, Louise M. Darling Biomedical Library, University of California–Los Angeles
Objectives: To evaluate the feasibility and utility of reinstituting teaching sessions outside of the curriculum in order to reach the larger patron community.
Methods: Most information literacy teaching at the institution is in-curriculum instruction of undergraduate through postgraduate students. The Louise M. Darling Biomedical Library drop-in

classes were cancelled almost a decade earlier due to lack of attendance. Faculty and staff are not regularly targeted for instruction in a programmatic way. One-on-one consultation appointments exist for patrons, but no regularly scheduled opportunities for learning exist outside of the curriculum. Given the ratio of 5 librarians to approximately 15,000+ primary clientele, individual consultations are not a scalable solution for instruction. Yet, librarians see regular demand for consultations on similar topics. To meet this need, a pilot program of extra-curriculum drop-in classes, First Fridays at Biomed, are being conducted over a 4-month period in spring and summer 2012. Program evaluation is currently underway to assess utility of the program to patrons and library.
Results: A series of drop-in classes were offered during the spring and summer quarters of 2012. Attendance varied depending on content, but evaluations indicate that course topics were well received by attendees. First Friday courses were extended through the fall, winter, and spring quarters despite decline in staffing levels at the library.
Conclusions: Regularly scheduled non-curriculum teaching is an effective way to reach economies of scale in library services.

71
Seeking out New Blood (and Brains!) for Section Membership through Quick Response (QR) Codes and Zombies Δ
Marie T. Ascher, AHIP, Associate Director, User Services, Health Sciences Library, New York Medical College–Valhalla; **Beth C. Whipple, AHIP,** Research Informationist and Assistant Librarian, Ruth Lilly Medical Library, Indiana University–Indianapolis
Objectives: Although the Medical Informatics Section (MIS) is one of the largest MLA sections, new ways to enhance section membership breathe life into a section. The creation of a Zombie Hunt game is a novel interactive approach to encourage people to join our section, have fun, and use some technology during MLA '12.
Methods: The Zombie Hunt game objective is to identify the most MIS member zombies through the use of quick response (QR) codes and Google documents. QR codes were distributed by email to MIS members who identified themselves as attending MLA via an online survey. Along with QR codes, instructions for the game and information on recommended QR readers were distributed. The QR code (1) randomly identifies the member as a zombie or non-zombie and (2) points to a corresponding page that either provides information on MIS meeting activities or, if a zombie were found, provides a form onto which the hunter could record their find. The hunter who finds the most zombies wins! Additionally, the MIS Section Shuffle booth had a zombie theme, and QR codes were distributed throughout the meeting. An assessment of the game's success will follow.
Results: Two hundred MIS Zombie Hunt QR codes were distributed at MLA '12 in Seattle. The game was fun, and people were interested and thought it was a great use of the technology. Anecdotally, people seemed to enjoy the concept and thought it was fun and interesting. However, there was very little actual playing of the game. Unforeseen difficulties, including QR code readers working on mobile devices and completion of a short survey may have stifled participation. Results were tweeted to the #mlanet12 stream and posted to the blog to encourage members to play, but only 21 attendees actually identified zombies. There were 40 "zombie" stickers distributed. Another significant incentive to MIS membership was raffling an iPad at the business meeting at MLA '12. However, despite these initiatives, membership actually went down from 2011 to early 2013, from 313 members to 323.
Conclusions: It is not possible to claim any relationship between the Zombie Game and membership numbers. It was enjoyable and demonstrated one way to use QR codes and similar activities will likely keep MIS interesting and keep membership from continuing to drop. The section will be continuing to investigate activities to keep the membership engaged.

75
Sharing Collections: Does Distance Matter?
C. Steven Douglas, AHIP, Head, Collection Management; **Megan Del Baglivo,** Metadata and Serials Librarian; Health Sciences and Human Services Library, University of Maryland–Baltimore
Objectives: This poster describes the process of aligning the collections of an academic health sciences library and a law library on a university system's professional campus with those of the research library at the system's flagship campus located thirty-three miles away.
Methods: In 2011, the state legislature charged the state university system board of regents with coming up with a plan to increase collaboration between the flagship campus and the professional campus to promote innovation. Early in the process of forming this strategic alliance, it became clear that access to information resources across campuses was necessary for strong collaborations in research and the development of joint programs. A joint collections management committee consisting of the associate dean for information resources and the collection management librarian from the flagship campus, the collection manager and serials librarian from the academic health sciences library, and the acquisitions librarian from the law library was formed and charged with developing a plan for sharing library resources.
Results: The three libraries have identified several resources to license collaboratively, resulting in some cost savings and collection enhancement.
Conclusions: While the collection scope of academic research libraries, academic health sciences libraries, and academic law libraries necessarily vary greatly, there is overlap and areas for collection collaboration. As the strategic alliance matures, the libraries will continue to look for resources that enhance the collections of both institutions and develop policies and procedures to guide joint licensing.

79
SHHH: An Evidence-Based Bibliography for Keeping Hospitals Quiet Δ
Mindwell S. Egeland, Director; **Meredith Scherb,** Librarian; Patients Library, University of Iowa Hospitals and Clinics–Iowa City, IA; **Jen DeBerg,** Clinical Education Librarian, Hardin Library for the Health Sciences, University of Iowa–Iowa City
Objectives: This project involves improving nursing staff awareness of evidence-based strategies to lower noise levels on hospital units at a large public teaching hospital in Iowa. Our primary goal is to provide nurses with categorized evidence-based research that addressed the most pressing questions about noise in the hospital. Another goal is to build relationships between nursing staff and librarians to support improving quality of care and patient satisfaction.
Methods: We conducted a comprehensive literature search using PubMed and CINAHL to determine if there was an evidence basis for keeping hospitals quiet and if there were any trends in the research that would be of value to nurses. We worked with

nursing administration to focus the search and add relevant resources. Additionally, we searched selected references looking for evidence-based research to support the following four trends in the literature: hospitals are noisy, noise impacts sleep, noise reduction strategies help, and sleep deprivation impacts health. We then created a bibliography with links to the research so that nursing staff would be easily able to view the evidence. We provided tools and changed workflow to assist nursing in reducing noise including evidence-based research, ear plugs, eye masks, sound conditioners, stop lights, decibel meters, iPad and iPhone apps, scripting, staff rounding, and headphones. We shared scores received from Press Ganey surveys to document current noise conditions reported by patients. We utilized established nurse meeting times to educate nurses about the resources.
Results: Collaborating with the nursing administrator resulted in a focused literature search related to two themes: (1) hospital noise impact on patient perceptions/satisfaction and (2) noise reduction strategies work. Our understanding of how to format a research summary for the intended group was enhanced. The partnership has enabled us to address the objective of publicizing findings through staff intranet and blog post, in addition to presentation at established nursing meetings. We are currently evaluating the impact of these efforts on patient and practice outcomes. We intend to use these evaluation data to continue seeking opportunities to address the problem, with the guidance of nursing administration and other identified groups.
Conclusions: Librarians in hospitals and health care settings gain significant benefit from collaborations with nursing administrators, patient satisfaction administrators, and health sciences librarians in their communities. Medical staff armed with evidence-based resources can change their behaviors to improve patient satisfaction and may have a positive effect on patient outcomes.

83

Skylight Initiated-Library Facilitated Patient Education Service Δ

Sandy I. Oelschlegel, AHIP, Director and Associate Professor; **Cynthia J. Vaughn, AHIP,** Clinical Information Librarian and Associate Professor; **Katy Justiss,** Library Student Assistant; Preston Medical Library; **Eddie Moore,** Designated Institutional Official and Associate Dean, Graduate School of Medicine; University of Tennessee–Knoxville

Objectives: This paper will describe an innovative use of technology to deliver trustworthy and authoritative disease and treatment information to patients in their hospital rooms.
Background/Setting: Preston Medical Library (PML) has provided health information to the community though our Consumer & Patient Health Information Service for more than twenty years. A librarian has been a member of the University of Tennessee Medical Center (UTMC) Patient Education Team since 2005. The library and the Patient Education Team developed, piloted, and implemented a patient-initiated health information service.
Method: Librarians and Patient Education Team members developed a flowchart to identify workflows and personnel involvement for a patient-initiated, library-facilitated patient education service. UTMC utilizes the Skylight ACCESS system, an in-room service that provides access to cable, movies, and Internet and is a means for patients to receive customized patient educational videos and other material selected by the Patient Education Team. A function was added to the Skylight interface that allows patients to alert the library of a health information need. Librarians interview the patient and select trustworthy and authoritative health information. A pilot was conducted on two hospital units for ninety days beginning May 2011. Minor technical problems were noted, which were subsequently resolved. The service was implemented hospital wide in December 2011.
Results: There were 76 Skylight requests initiated by patients between December 1, 2011, and December 1, 2012. Of those requests, 61.8% (n=47) resulted in information delivery to the patient room. The remaining 38.2% (n=29) were mistaken requests, where patients accidently used the request function on Skylight ACCESS system. Requests came from each of the patient floors in the hospital with the number of requests from floors ranging from 1 to 27. The request topics were indexed using NLM Medical Subject Headings (MeSH). One hundred and eleven MeSH were identified for the 76 Skylight requests. Individual requests included as many as 5 MeSH in one request.
Conclusion: This patient-initiated, library-facilitated method of meeting the health information needs of patients has potential to enhance the ability of nursing staff and clinicians to provide trustworthy and authoritative disease and treatment information to patients in their hospital rooms.

87

Social Media and Medical Students: What Are They Thinking? Δ

Alexandra Gomes, AHIP, Associate Director, Education, Information and Technology Services; **Gisela Butera,** Reference and Instructional Librarian; Himmelfarb Health Sciences Library, George Washington University, Washington, DC; **Terry Kind,** Faculty, General and Community Pediatrics, Children's National Medical Center, Washington, DC; **Katherine Chretien,** Associate Professor, Medicine, George Washington University, Washington, DC

Objectives: To describe the methods and results of an institutional review board (IRB)-approved qualitative study on first-year medical students' attitudes and perceptions of medical professionalism in social media. Included in the study is an evaluation of changes in perspective after participating in a librarian-created e-professionalism and social media instructional session.
Methods: In January 2012, the librarians developed and taught an instructional session on e-professionalism and social media to all first-year medical students. The session examined current examples of health care professionals and students utilizing social media tools (Facebook, blogs, Twitter) and generated discussion about appropriate and inappropriate uses. A panel of affiliated physicians who use social media spoke about their own experiences and guiding principles, and answered questions from the students. After the session, students wrote a reflection paper about their own experiences with social media, both before and after entrance to medical school, and outlined their current behavior and expectations as a result of attending the session. A subset of students consented to participate in the study; their de-identified reflection papers were coded by two investigators to elicit common themes.
Results: Multiple common themes were found. Students discussed the issues involved in transitioning from using social media in their personal lives to integrating it into their developing medical professional identities. Many students noted that they are representing more than just themselves when online, now that they are in medical school. Some had already changed their social media identities prior to entering medical school, such that they were relatively careful and private online. Others noted changes they might make and an awareness of new opportunities, such as using social media for professional development, as a result of

the session. Most identified areas for which social media guidelines could help raise awareness among medical students.
Conclusions: The data demonstrate a need for guidance to help students become aware of the positive and negative implications involved in using social media as a health care professional. This study can inform the development of social media policies at medical schools by shedding light on the students' perspectives.

91
Solutions to Social Media Overload: Bank Your Tweets! Δ
Siobhan Champ-Blackwell, Health Sciences Librarian, Business Unit 4, Aquilent, Bethesda, MD; **Jamie Peacock,** Outreach Librarian; **Andrew Plumer,** Outreach Librarian, Specialized Information Services; National Library of Medicine, Bethesda, MD; **Mark Hemhauser,** Systems Librarian, Integrated Library System Team, McKeldin Library, University of Maryland–College Park
Objectives: A division of a national organization with a broad scope of health information services decided to experiment using Twitter for community outreach. Their goals are twofold: to engage current users and to promote resources. However, due to staff time constraints, the team realized a need for automated solutions for recycling promotional tweets, allowing more time for outreach and networking.
Methods: Due to the expanding scale of their social media operations, the new media team realized they needed to streamline their workflow to make more efficient use of staff time. The use of ready-made, third-party management tools for tweeting and monitoring feeds only solved part of their time-constraint problem. Because staff time devoted to social media engagement and promotion is limited, staff realized they needed a strategy for automating the sheer volume of potential promotional tweets about their resources. After a structured knowledge audit of online resources, the team selected relevant resources and crafted evergreen tweets for each one. Finally, they developed an archiving strategy for storing the promotional tweets for reuse.
Results: The process of conducting a structured knowledge audit and developing a database of evergreen tweets yielded expected and unexpected results. The knowledge audit provided the team with a fresh look at our content, and we discovered an abundance of content that is unique and can be useful for our communities. As hoped, time saved from composing new tweets and instead reusing our evergreen tweets has been spent in engaging and networking with our followers and with others in the field we hope to connect with. The improved workflow has also allowed us time to train more staff on the best ways to integrate social media into their projects.
Conclusions: Social media is a flexible and forgiving communication tool. The workflow that has emerged from this project is responsive to the "personality" of each twitter handle, whether it has 300 followers or 10,000. While the team is cognizant of social media best practices, we have taken a different approach; with more of a marketing and advertising focus, we are increasing the number of followers for each handle and have retained the ability to be flexible with our content.

99
Standing up for Wellness: One Library's Goal to Move Library Staff Δ
Ann Farrell, Librarian, Mayo Clinic Libraries; **Melissa Rethlefsen, AHIP,** Education Technology Librarian, Learning Resource Center; Mayo Clinic, Rochester, MN; **Leah C. Osterhaus Trzasko,** Health Science Librarian, Health Science Library, Mayo Clinic Health System, La Crosse, WI
Objectives: Motivate library staff to stand up during their work shifts.
Methods: Research suggests that too much sitting is hazardous to one's health. Prolonged sitting can increase the risk of cardiovascular disease and affect blood sugar levels. Library staff probably spend most of their work day sitting. Two library staff volunteered to be "wellness champions" for their library. They used a wellness kit created by the institution's healthy living center to motivate staff to get up and move. They administered a survey to determine whether a wellness program made a positive impact on library staff's attitude toward standing up and moving during their work shifts.

103
Starting a Mobile Project at a Multi-Campus University
Jenny Pierce, Public Services Librarian, Health Sciences Library, University of Medicine and Dentistry of New Jersey–Stratford
Objectives: At the request of the university libraries management team, a university-wide mobile initiative was begun in 2010. The timeline from the creation of the university libraries mobile working group to the development of the group's mission and the first year of the project will be described.
Methods: A mobile subcommittee, made up of the university libraries staff, created a plan to better standardize and integrate mobile devices and resources into library services across all campuses. A Technology Improvement Award from the National Network of Libraries of Medicine (NN/LM) Regional Medical Library provided funding to purchase mobile devices, accessories, apps, and e-books so that staff could educate themselves to better support the university community. This poster will review the work of the group from its start through the first year. Lessons learned will be shared including some unexpected benefits.
Results: The Mobile Working Group (MGW) comprised representatives from all four campuses. Discussion at the first meeting including deciding what can we do immediately; what can we do in the future. MWG identified several goals for the first year: provide access to catalog; links to the most important mobile resources as identified by the group and others; include individual campus library hours and a phone number to call for each library. To provide access to the catalog, the university libraries purchased a one year contract for LibraryAnywhere from LibraryThing for Libraries. LibraryAnywhere is a mobile website/catalog platform from LibraryThing for Libraries. Using just the catalog URL LibraryAnywhere could scope the records and provide interim online catalog access. It also provides basic mobile pages with live phone links and mapping for basic campus library information. Additional pages were created to provide the ability to email the libraries directly from the mobile device. Pages were created for university wide resources as well as the specific resources preferred at each campus.
Conclusion: Library staff on each campus took the knowledge gained from this project to incorporate mobile technologies in their library services, to acquire mobile apps, and to create mobile websites best suited to their unique user group. This project, like many other library projects, will continue to evolve.

107
Steps to Conducting a Systematic Review Δ

Mala K. Mann, Information Specialist and Systematic Reviewer, Support Unit for Research Evidence, Cardiff University, Cardiff, United Kingdom; **Alyson Huntley,** Research Officer; **Sarah Purdy,** Consultant Senior Lecturer and MRC Clinician Scientist, School of Social and Community Medicine, University of Bristol, Bristol, United Kingdom

Objectives: The role of a health care librarian is continually evolving and faces greater challenge to support evidence-based medicine (EBM), especially contribution in the use of systematic reviews. This presentation will discuss the stages of conducting a systematic review, especially that which is relevant to the information professionals.

Methods: The first step to identify that there is a need for new information and how to convert an information query into an answerable question. The research question is initiated by a research team with input by the information specialist. The second step is finding the best evidence, locating which sources to search, and searching them effectively. Construct a search strategy using the techniques of narrowing or expanding the search, Boolean operators, truncation, and wildcards. An effective search strategy requires a balance between sensitivity and specificity.

Results: The poster presentation will provide data from a series of systematic reviews undertaken to identify factors to reduce the risk of unplanned hospital admissions.

Conclusions: A systematic review involves several distinct stages, which will be described in the poster.

111

Sowing the Seed for the Need for Informationists to Help Tackle the Doctor-Patient Ratio in India

Vasumathi Sriganesh, Chief Executive Officer, Training, QMed Knowledge Foundation, Mumbai, India

Objectives: The doctor-patient ratio in India is far lower than the need. Becoming a doctor is also ironically very tough. Those who do not get into medical schools settle for options often in completely different fields. Becoming a medical informationist may be a very satisfying alternative and may also help tackle the problem of poor ratios.

Methods: We currently offer training programs to students, faculty, and professionals in the health sciences for structured literature searching, referencing, and medical writing. The student community loves this, and we get questions about "choosing such career options." However, medical librarianship itself is unattractive to most, and an informationist is something that majority do not know anything about. We aim to create interest in this possibility amongst senior health professionals and governing bodies in the country. If the idea is welcomed, the next step is to create suitable university courses with a foundational health sciences component and the information component. Graduates will then be "information associates" to overworked doctors, helping them find updates and evidence and save them time with very effective patient communication. In India, this could be a very satisfying alternative career that also helps the health systems!

Results: Our work is still at the stage of awareness building, but people are extremely interested in the idea. We found other similar efforts in the mainstream health profession, where individuals with no college degree have been trained to be an integral part of health care delivery as assistant nurses and in mother and child care. These efforts will guide us in our quest.

Conclusions: We have to put in lots of efforts to try different ideas to ensure creation of informationists who will assist health professionals in countries like India where the doctor-patient ratio is challenging. Our current workshops for health professionals in information handling have clearly indicated that there is a lacuna in their skills and they would welcome support in this area for their professional updates. Every minute saved will help them handle their time for patient care save them time with very effective patient communication. In India, this could be a very satisfying alternative career that also helps the health systems!

115

Strengthening and Promoting the Health Information Center and Disaster Library of the Faculty of Medical Sciences, University of San Carlos de Guatemala

Alba Dely Ramos Mendez, Biblioteca y Centro de Documentación, Library of Medical School University of San Carlos; **Maria Alvarez,** Library Assistant, Biblioteca y Centro de Documentación Dr. Julio De León Méndez; Universidad de San Carlos de Guatemala, Guatemala, Guatemala

Objectives: In an effort to promote access to scientific and technical information, related to health issues and disasters in communities that speak a Mayan language in Guatemala is proposed the translation of selected materials on disaster prevention and first aid to the language of the communities with higher population and a higher risk for natural disasters.

Methods: Demographic information was analyzed by department and community as well as the incidence of disasters in those communities and of the twenty-three Mayan languages spoken in Guatemala today, and as a pilot for future projects with other languages we choose one Mayan language, Kaqchikel, because it covers a larger number of people. Communities and departments were chosen with the highest concentration of population in conjunction with the National Coordinator for Disaster Reduction (CONRED) and the Library of the Faculty of Medical Sciences selected five basic documents with guidelines for disaster prevention and first aid. This information is necessary in a country with an area so prone to natural disasters, the most recent Hurricane Mitch and Hurricane Stan. Authorization was obtained for translation and reproduction of the selected documents from authors and were translated and plotted.

Results: The reproduction of twenty-five copies of each guide was done, with a master of the guides in PDF and Freehand, and the patterns for future translations from other Mayan languages. The documents were reproduced on a CD with the guides in Spanish and Kaqchikel and distributed in different institutions. Also we have entered the documents into the database, Health Information Center and Disaster Guatemala, where can we view the full text via the portal desastres.usac.edu.gt, and we are looking for other alternatives to give greater publicity to these documents.

Conclusions: There are not many educational materials on disaster prevention, and reproduction of this material is necessary in twenty-three Mayan languages. We need to seek more affordable alternatives to disseminate this material. We need to translate more material of health issues and disasters prevention for better support and service to the community.

119

Supporting a Culture of Service: Outreach through Service Learning Partnerships Δ

Elisa Cortez, Chair, Access Services, and Liaison Librarian, University Libraries, Loma Linda University, Loma Linda, CA

Objectives: To develop strategies to support the university's culture of service and commitment to global service. This poster examines how liaison librarians are in an optimal position to contribute to service learning; take the lead in identifying, organizing, and disseminating information resources that support

students and faculty engaged in service learning experiences; and incorporate service learning in information literacy sessions.
Methods: Setting is an academic health science library. Students in the school of medicine, school of dentistry, and school of allied health, as part of the curriculum are required to complete service learning hours. The university has a long tradition of service and a number of high-quality local and international service learning opportunities are available. At the conclusion of the service experience, a reflection paper is required, usually in the Portfolio course. While information skills are taught in the research courses, integrating these skills in the context of service learning exposes students to a wider range of information tools. The liaison librarian initiated contact with campus organizations to collaborate with, mapped the curriculum, and identified key points where sessions could address the information needs of those in a service learning experience. An outline of opportunities for outreach will be covered that may assist other libraries.
Results: Feedback and results from the on-campus programs will be used to determine support for the service learning components of distance programs.

123
Supporting a Library Presentation Studio: A New and Evolving Role for Reference Staff
Ryan Harris, AHIP, Reference and Research Services Librarian, Health Sciences and Human Services Library, University of Maryland–Baltimore
Objectives: The Health Sciences and Human Services Library recently opened a state-of-the art presentation practice studio that allows patrons to create, practice, record, and edit presentations. Reference staff developed studio policies and provides technical support. This poster discusses challenges and opportunities in developing studio policies, providing technical support to studio users, assessment of studio usage, and benefits of providing this new service.
Methods: While reference staff provides a majority of technical support for patrons within the library, they had little experience in using studio equipment and software. Information technology (IT) staff trained reference staff on studio equipment and software, who then developed several user guides, including a checklist with simple step-by-step use instructions. To increase studio hours, a new IT position was created to support studio use during nights and weekends. Reference staff collaborates with this new IT staff member to develop additional user guides. IT and reference staff provide advanced technical support and training, including editing with software, as needed. A reference librarian worked with IT to develop an online reservation form and Google Calendar for studio reservations. A survey is sent to past studio users to assess who is using the studio and how studio services can continue to grow.
Results: Survey reveals that majority of studio patrons (58.75%) are using the space to practice presentations and primary user group has been students (38.75%). There has been little use of editing equipment aside from a small number of faculty using to edit classroom lectures. Most find the studio equipment easy to use, although there have been some requests to have more instructions for how to use studio equipment.
Conclusions: Support of the presentation practice studio has allowed the reference department to meet a unique need for the campus. We will continue to improve services and use the survey to further evaluate patron needs not only for how to use equipment, but also for when to provide staffing and to improve equipment.

127
Supporting Continuing Medical Education: Bringing Library Resources to Medical Conference Attendees
Jennifer Feeken, Librarian; **Jennifer Blanck,** Librarian; **Mary Wittenbreer,** Head Librarian; Medical Library, Regions Hospital, St. Paul, MN
Objectives: To introduce and promote Regions Hospital Medical Library services and the National Library of Medicine online resources with an exhibit at local continuing medical education conferences.
Methods:
- Setting: Multiple conferences hosted by HealthPartners' Institute for Medical Education (IME) in the Minneapolis-St. Paul metropolitan area. The medical library exhibit was always located among the pharmaceutical and medical device vendors' tables.
- Participants: Physicians, residents, physician assistants, advanced nurse practitioners, nurses, and other health care professionals. Each conference had 70–150 attendees from HealthPartners and other medical organizations.
- Program: Regions Hospital Medical Library received a technology award from the National Network of Libraries of Medicine, Greater Midwest Region, to purchase a laptop and monitor to demonstrate and display resources. Other components of the exhibit included National Library of Medicine (NLM) brochures, bookmarks, and pens, *NIH MedlinePlus* magazine, and subscription resources available to employees through the library's intranet site. Attendees had access to exhibit area for approximately for two twenty-minute breaks each day. A total of twelve conferences were attended.

Results: The number and type of questions from conference participants varied. Typical interactions with the conference attendees included questions on how to use library services, search PubMed and subscription databases, access online journals, or how to find and use MedlinePlus and other NLM and National Institutes of Health (NIH) consumer health websites. Attendees with no medical library access at their institutions were appreciative of the promotional materials from the NLM.
Conclusions: The librarians felt the project was worthwhile. It exposed many new people to library services and NLM resources. Current patrons were pleased to see the librarian's role expanded outside the library and into the medical education community. The librarians have several ideas that might make the project more successful in the future. We would improve contact with the speakers to align the exhibit with the course goals, create dynamic signage, move the library exhibit out of the vendor area and into the lecture hall, and use mobile technology to establish an online presence.

135
Teaching a Development Workshop for Nursing Faculty in India Δ
Michele Malloy, Research Services Coordinator, Dahlgren Memorial Library, Georgetown University Medical Center, Washington, DC
Objectives: A faculty development workshop was offered to a newly developed nursing school in India, taught by three nursing faculty members and one librarian. Participants were expected to develop their own instructional segment, and the librarian

provided intensive office hours, an online guide, and detailed troubleshooting. In conclusion, all faculty members used new informational sources and integrated them into teaching.
Methods: Fifteen nursing faculty members attended the workshop, with the goal of developing informational skills and broadening the scope of their teaching. The librarian and faculty instructors developed the lesson plans together, ensuring overlap of essential topics. In addition to classroom time, we provided an intensive online free resource guide, a series of informational activities, embedded office hours, and a cumulative assignment.
Results: Following the workshop, participants were asked to rate the sessions and provide feedback, with the librarian-led information literacy sections very well received. This feedback can be used to develop further international collaborative projects and introduce librarians into the standard nursing outreach opportunities. Additionally, the tailored online free resource guide has been steadily used following the visit.
Conclusions: Many academic health centers organize international service opportunities for students and faculty, and this represents an example of librarian involvement to support faculty and advance informational literacy within health education among all populations.

139

The Academic Medical Library as Online Publisher

Mary Piorun, AHIP, Associate Director; **Sally A. Gore,** Head, Research and Scholarly Communication Services; **Lisa A. Palmer, AHIP,** Institutional Repository Librarian; Lamar Soutter Library, Medical School, University of Massachusetts–Worcester; **Raquel Abad,** Health Sciences Librarian, Blaisdell Medical Library, University of California–Davis, Sacramento, CA; **Elaine Russo Martin,** Director, Lamar Soutter Library and National Network of Libraries of Medicine, New England Region, Medical School, University of Massachusetts–Worcester

Objectives: To describe the use of the institutional repository system to facilitate the publishing activities of an academic medical library.
Methods: Having a mature collection of peer-reviewed articles, posters, and conference proceedings in the institutional repository, the library sought to expand the use of the system. Beginning in 2009, the library partnered with the department of neurology and the department of psychiatry to publish electronic journals. In the spring of 2011, the library began to explore the idea of publishing its own peer-reviewed, open access electronic journal. Planning and implementation considerations included: unique and appropriate name; infrastructure and hosting options; organizational and governance structure; roles and responsibilities; journal structure and content; aims and scope; editorial, peer review, and other policies and procedures; and dissemination. Simultaneously, the library undertook the publishing of its first electronic book on the history of the institution where issues of presentation, page turning features, photo placement, and indexing became issues.
Results: The inaugural issue of the *Journal of eScience Librarianship (JESLIB)* (escholarship.umassmed.edu/jeslib/) was published on February 15, 2012, via the journal management platform of the Library's institutional repository, eScholarship@UMMS. *JESLIB* has been assigned ISSN 2161-3974. The medical school joined CrossRef so that article metadata could be deposited into their system and each article assigned a digital object identifier (DOI). Additional issues have been published, readership statistics and patterns are positive, and *JESLIB* is now indexed in the Directory of Open Access Journals. In fall 2012, the library published its first e-book, *A History of the University of Massachusetts Medical School* (escholarship.umassmed.edu/umms_history/1/), which was authored by the medical school's head of the office of medical history and archives.
Conclusions: Academic medical libraries can successfully publish as well as host online journals and books. Helpful planning guides and other resources are available to assist libraries and academic groups in publishing open access peer-reviewed materials. Lessons learned include: consider professional copy editing services; editorial team roles and responsibilities should be clearly defined but allow room for flexibility; locking papers for revisions speeds up workflows; e-book creation can be technically challenging; and have a clear marketing communication and promotion strategy.

143

The Effect of E-Book Availability on the Usage of Print Monograph Titles Δ

Karen S. Grigg, AHIP, Associate Director, Collection Services; **Elizabeth Berney,** Service Desk Manager; **Emma Cryer,** Electronic Resources and Serials Manager; **Barbara Dietsch,** Acquisitions and Cataloging Manager; **Adrianne Leonardelli,** Research and Education Librarian; **Richard A. Peterson, AHIP,** Deputy Director; **Patricia L. Thibodeau, AHIP, FMLA,** Associate Dean, Library Services and Archives; Medical Center Library & Archives, Duke University, Durham, NC

Objectives: This poster describes the methods utilized by an academic health sciences library to ascertain the impact of the availability of e-books on the usage of our print collection. The project involved tracking how use of our monographs has changed over time, using a cost-per-use analysis of both print and electronic core monograph titles.
Methods: Based on user feedback and usage statistics, it is evident that our users prefer e-books over print. In response, the library shifted much of its monographs budget to e-books. In order to document and quantify this shift, a study was developed to track the usage of core, heavily used print medical titles over a ten-year period. The number of loans for each edition of these titles was identified. Titles that became available electronically were tracked for use. When a core title was not available electronically, the number of sessions for any similar electronic counterpart was recorded. Cost per use was extrapolated for both print and electronic titles. These data were used to view overall patterns of monograph usage and to determine whether or not e-book titles, despite their initial higher cost, are more cost effective.

147

The Feasibility Study of Worldwide Interoperability of the Japanese Medical Thesaurus

Hayato Toyotama, Deputy General Manager, Bibliographic Services Division; **Atsutake Nozoe,** Professor Emeritus; Japan Medical Abstracts Society, Tokyo, Japan; **Stuart Nelson,** Head, Medical Subject Headings Section, National Library of Medicine, National Institutes of Health, Bethesda, MD

Objectives: Japan Medical Abstracts Society (JAMAS) has developed the JAMAS Japanese Medical Thesaurus (JJMT) since 1983. JJMT is similar in structure and content to Medical Subject Headings (MeSH) of the US National Library of Medicine. Every JJMT descriptor corresponds to a MeSH descriptor. Each MeSH term is assigned to the concept in the Unified Medical Language System (UMLS) and has many links to other medical and health

care terminologies. JJMT has many valuable interoperability links. This study validates how much value of information and interoperability is in JJMT.
Methods: Medical terms that are applied to medical practices and insurance systems in each country and area have built on and developed from their backgrounds and the histories. The UMLS consists of many terms assigned to the "concept" and linked to worldwide terminologies. This study investigates how JJMT terms correspond to other terminologies.
Results: In the field, a subject may be expressed by any number of different strings of characters. Medical terms are used in many different situations for various purposes. We focused on how practitioners used each term according to their point of view. Although, in hospitals, in institutions, and in universities, there are so many different situations practitioners use properly. JAMAS has aggregated medical terms to assign proper descriptor and synonyms by linking them as synonyms to MeSH. Where there was no MeSH equivalent term, JAMAS has assigned them to other concepts in the UMLS. JAMAS used different Japanese medical terms in the concept to make them easier to understand. We found as a result that Japanese medical terms had many links to other medical terms via concepts of UMLS in this process. JJMT's assigning a term to a concept of the UMLS makes more links than those asserted only by the links to MeSH. JAMAS and the UMLS consider a concept to be constant. If a term has changed in meaning, practice has changed. New investigations, treatments, or diagnoses have been discovered, and the new concepts developed. MeSH has 26,969 Main Headings (MH) as descriptor. MeSH is translated and used by 14 countries. Czech, Finnish, French, German, Italian, Polish, Portuguese, Russian, and Spanish translations are essentially complete as well, covering of MeSH. Swedish translation is corresponded to 25,558 terms, Dutch to 14,826, Latvian to 1,071 and Croatian to 8,253. These data suggest a medical Japanese term will be able to be translated and used in fourteen languages. JJMT is linked by synonymy to 59 different medical and health care terminologies through UMLS concepts; 536,000 JJMT terms have some link to other terminologies of UMLS.
Conclusions: The inclusion of JJMT in the UMLS, and its correspondence with MeSH, provides a great opportunity to interoperate with many other medical vocabularies.

151

The Information Practices of Biomedical Medical Researchers in the Clinical Work Context: Possibilities and Challenges for the Library to Develop Information Services Δ

Katri Larmo, Information Specialist; **Tiina M. Heino,** Information Specialist; **MariElisa Kuusniemi,** Information Specialist; **Eeva-Liisa Aatola,** Information Specialist; **Annikki Roos,** Library Director; Meilahti Campus Library Terkko, University of Helsinki, Helsinki, Finland
Objective: The aim of this study was to investigate the information practices of researchers in the biomedical domain. Our main focus was in researchers with clinical settings, and the purpose was to study their information practices in the work context. The final, practical objective is to develop tools and services, which could be integrated into researchers' workflow.
Methods: This is a qualitative case study, and our focus is on researchers and research groups from various medical fields from the Helsinki Academic Medical Centre. Twelve researchers were interviewed, and some of them were asked to demonstrate their practical search procedures. We used semi-structured interviews, transcribed them, and used DeDoose to code and analyze the data.
Results: Doctoral students carried out research work and clinical work quite separately. Seniors, whose organizational position was multifold, had a closer connection between the different activities. Randomness, "trial and error," was a dominant strategy for searching, and the skills to search were learned by doing. Information practices varied according to the stage of the research work, the role, and the experience of the researcher.
Conclusions: Libraries should develop methods to virtual presence in the researchers' virtual work environment as well as new tactics to be present also on the researchers' physical work environment. The methods of social marketing could be used in catching the attention of the different focus groups.

155

The Librarian's Role in Implementation of Evidence-Based Practice (EBP) in the Dental School Curriculum Δ

Annie M. Hughes, Information Services Librarian, Wilson Dental Library, University of Southern California–Los Angeles
Objectives: The Commission on Dental Accreditation (CODA) standards recently changed, and there is now a requirement that students gain an understanding of how to use and critically appraise the literature as well as understand evidence-based concepts. This poster will discuss the implementation of evidence-based dentistry (EBD) at the school and the librarian's role and experiences with regard to educating students about the access of high quality evidence.
Methods: In 2011, the school created a committee to implement EBD into the curriculum and the librarian was asked to be a member. In order to fully calibrate the librarian with regard to EBD, the school provided funding to attend a week-long course on EBD offered by the American Dental Association/Forsyth Institute. The course provided an opportunity for the librarian to develop skills on other aspects of EBD aside from accessing high-evidence resources as well as learn about curricular integration. In 2012, the librarian and the school's EBD committee chair met and planned a 3-hour seminar for second year DDS students as part of their treatment planning and diagnosis course. In response to the accreditation standard requiring competence in accessing resources, one hour of the seminar is led by the librarian and devoted to search strategies.
Results: Prior to the session, students were required to complete an online training course created by the committee chair and made available through Proctor & Gamble's dentalcare.com site. The course introduces EBD searching strategies, and a quiz on the material is administered after completion. During the class session, the librarian refers back to this course and goes over major topics such as Boolean operators, Medical Subject Headings (MeSH), Clinical Queries, and using Cochrane. Following the review session, students are provided with a case scenario and must develop a patient/problem, intervention, comparison, outcome (PICO) question, a search strategy, as well as find specific study types. The hands-on exercise helped our students to get a taste of what a real life-scenario using EBP would involve as well as how to develop their searching abilities.
Conclusions: As the school embarked on integrating EBD into the curriculum, we found that an effective committee involves not only high-skilled clinicians, but also librarians. Accreditation standards recognize the importance of being able to effectively access information, and librarians are the experts in this area.

159

The MLA Hospital Library Standards: A Valuable Tool for Library Promotion Then, Now, and the Future Δ

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Objectives: The MLA Standards for Hospital Libraries were developed to support a network of medical libraries that function in a wide variety of situations and are connected by the common goal of serving the health information needs of health care providers and patients. The poster will show how the committee has measured the value of the standards as a valuable promotional tool via a survey.

Methods: The standards are more than a dry set of requirements for libraries in health care organizations. They have a wonderful history via the people involved and the situations that precipitated their development. The poster from the Standards Committee of the Hospital Libraries Section (HLS) will portray the rich history, stories, challenges, and even the humorous moments behind the standards and the amazing people involved. The poster will cover the following periods:

- 1993–1997: the early committee members, their challenges, and mission
- 1997–2003: the development and reception of the first standards (2002)
- 2007–2009: publishing and reception of the revised standards, their first challenge and the committee's response

A survey authored by the standards committee has been sent to the HLS members to gather information on the use and understanding of the members on the value of the standards for library promotion.

Results: Our results are not complete yet. Our survey is still active and has been presented to the HLS members through the section list. The survey will close April 30, 2012. Results will be complied at MLA '12 standards committee meeting, and if selected a report will be prepared for submission after December 2012. In the results, we plan to have questions for all international visitors who view the poster as to what "Standards" they offer in their countries. These results will be in any final publication presented by the committee.

163

The Research Experience of the First-Year Master's of Science in Nursing, Clinical Nurse Leader Student Δ

Claire Sharifi, Reference Librarian and Liaison, School of Nursing, Gleeson Library, University of San Francisco, San Francisco, CA

Objectives: According to the American Association of Colleges of Nursing's 2007 white paper, clinical nurse leader (CNL) core competencies include the ability to "apply research-based knowledge...as the foundation for evidence based practice" as well as "access and use data from a wide range of resources." To ascertain CNL students' information literacy skills, a citation analysis and survey will be conducted.

Methods: Master's of science in nursing (MSN) CNL students complete a global health research project at the end of their first semester. The initial library instruction session, occurring at the beginning of the first semester, received by MSN/CNL students is designed to provide information literacy instruction and introduce them to the library's resources. In order to evaluate students' information literacy skills, assess the effectiveness of library instruction, and determine priorities for library instruction curriculum development, a citation analysis of MSN/CNL students' global health projects will be utilized to assess the currency, authority, and source of cited references, along with a brief survey investigating students' perceptions of the research process.

167

Think Inside the Blocks: Bringing Health Information to Underprivileged People in Their Own Environment

Nancy Patterson, Community Outreach Coordinator, National Network of Libraries of Medicine, Southeastern/Atlantic Region, Health Sciences and Human Services Library, University of Maryland–Baltimore

Objectives: As medical librarians, we are dedicated to reducing health disparities. Often, we focus on our library's programming and how to get underserved people into our libraries. This bilingual poster (English/Spanish) provides inspiration for creative outreach that takes place in the communities where underserved people live—in the places they frequent, using the communication modes that are already in place.

Methods: This poster highlights six creative health outreach projects that have proved to be successful in raising health awareness and participation in health-related events in their communities. For example, in Georgetown, SC, a beauty salon owner concerned about her clients' frequent frustration with medical information partners with her local public library and is grant funded to provide a wellness workstation in her salon. Now, her clients research health information between services and evening classes are offered and open to all.

Results: As this is not a research poster, "results" cannot be provided, but another creative outreach project that is highlighted takes place in Parrottsville, TN, where a health clinic partners with a medical library and health ministry to reach Hispanic migrant farm workers through theatrical health-related performances by and for members of local Hispanic churches. The churches teach Bible stories using this method, so it was a natural extension of what was already in place. Computer workstations in the churches and laptops for *promotores* are also provided via funding.

Conclusions: Working to make your library and its programming inviting and culturally appropriate for diverse and underserved populations is important and should be a priority. Because of transportation issues and other deterrents that underprivileged people face in getting to a library, it is also imperative to go out into those communities to reach the underserved. In our outreach work, we have found that forming partnerships with owners and staff of popular gathering places in the community make a

tremendous impact on the health awareness and self-advocacy of community members. Be creative—think outside the box and "inside the blocks."

175

Tracking National Library of Medicine Funding in Published Articles Δ

Susan L. Roy, NLM Associate Fellow, National Library of Medicine; **Valerie Florance,** Director, Extramural Programs; National Institutes of Health, Bethesda, MD

Objectives: The National Library of Medicine (NLM) awards a number of grants, including the RO1 research project grant, the premier grant awarded for biomedical research by the institutes at the National Institutes of Health (NIH). The objective of this study was to provide in-depth evaluation of the outcomes and impacts of RO1 grants funded by the NLM for biomedical informatics research.

Methods: RO1 grants awarded by NLM from Fiscal Year (FY) 1988 to FY 2011 were identified using the NIH RePORT website. PubMed, Scopus, and Web of Science were then used to determine activity measures (publication counts and lag-time) and impact measures (citation analysis) of the grants. In these data, we looked for patterns, field clusters and outliers. Descriptive statistics and graphs were employed to highlight patterns and differences.

Results: Our results show the trends in research grant publishing patterns for subfields within biomedical informatics, thereby allowing for future tracking of trends in research and scientific publishing. Differences in time to publication, number of publications per grant, and citations per article were found between subfields of biomedical informatics. Examination of outliers proved to be an important strategy for understanding the citation levels.

Conclusions: Publications are not the only outcomes/deliverables of informatics research, but they are current the foundation of impact assessment at NIH. Our findings suggest that bibliometrics can be a valuable tool in impact assessment and in the study of publishing patterns within an interdisciplinary field. While no single citation source covers all titles in which informatics research is published, it is possible with triangulation to establish an assessment approach that meets programmatic needs efficiently.

179

Transitioning from Library-Based to Embedded in a School Community: One Librarian's Case Study

Roy Eugene Brown, AHIP, Education and Research Librarian, Tompkins-McCaw Library for the Health Sciences, Virginia Commonwealth University–Richmond

Objectives: To describe the process by which a librarian became embedded in his liaison school and strategies for improving communication within the liaison school, the enhanced value of librarian/faculty collaborations, and lessons learned.

Methods: An overarching goal at our library is to transition liaison librarians from being library-based to being fully embedded within schools. Advancing this goal requires a multipronged approach. Initial steps included assessing the role of the nursing liaison and engaging faculty in discussions about their research needs. A practical, sustainable model for becoming embedded was developed. This model built upon and enhanced the value of the liaison role. Strategies implemented included offering customized bibliographic instruction sessions, offering brown bag lunch workshops, setting up journal citation alerts, serving on committees within the school, offering virtual and face-to-face consultations, and holding onsite office hours in the school. A nursing-themed blog was also created to communicate with the school. Being proactive in addressing the research needs of the faculty has enabled the author to participate in assisting with literature reviews and other activities.

Results: The author has been asked to do research on faculty projects, including:

- R01 grants (1)
- HRSA grant (1)
- Preparing Manuscripts for publication/suggestion of possible journals to publish in (3)
- Co-teaching a part of class on information literacy and how to effectively search for information; also have been able to create an assignment that I grade (taught the last 4 semesters)
- Coauthoring a paper with a faculty member and another in process of being published that is an integrative review
- Embedding in online classes at the school through Blackboard
- Sitting on all program committees at the school and because of my work being asked to sit on committees in the hospital as well that are headed by nurse managers

Years	Orientations	Classes	Consultations	Total Hours	# of People Served
2007–2008	8	8	14	44.25	649
2008–2009	5	5	51	87.75	510
2009–2010	6	18	46	90	1,057
2010–2011	15	5	49	95.35	754
2011–2012	19	9	192	298	1,729
7/2012–12/2012	8	10	212	291.7	856

Conclusions: My actions have been successful in allowing me to become embedded in the school I am liaison to.

183

Tweet, Blog, Share, and Post: Improving Communications in an Era of Interdependent Social Media Δ

David Midyette, AHIP, Outreach and Communications Coordinator; **Andrew Youngkin, AHIP,** Emerging Technologies and Evaluation Coordinator; **Sheila L. Snow-Croft,** Public Health Coordinator; National Network of Libraries of Medicine, Southeastern/Atlantic Region, Health Sciences and Human Services Library, University of Maryland–Baltimore

Objectives: To evaluate the development and effect of a targeted communication policy using four social media formats (blog, Facebook, Twitter, webinar) and one more traditional format, the email discussion list. To improve communication with health sciences librarians, health care practitioners, and interested parties following the communications of a regional medical library.

Methods: Communicating information to a broad constituency creates a challenge for any information-oriented organization. Compounding that challenge is the nature of social media with restrictions on the amount of information provided, decisions about original, repackaged, or republished content, and individual comfort levels with social media. To meet these challenges and improve our communication program, we developed a policy with clear guidelines on preferred usage of social media to meet the expectations of information consumers. Evaluation of the success of these improvements will keep information flow dynamic. The interdependent nature of social media with posting of information frequently crossing platforms causes concern about information overload. To improve our communication strategy, we plan to survey constituent attitudes about the content, quality, frequency, and depth of our information program and compare this with statistics provided by the various social media providers.

187

Unite and Conquer! Our Experience Using a Team-Liaison Approach to Integrating Library Services into a New Medical Education Curriculum

Barbara C. Harvey, Health Sciences Information Services Librarian; **Timmi Johnson, AHIP,** Health Sciences Information Services Librarian; University Libraries, University of South Dakota–Vermillion

Objectives: To illustrate our team-based approach to further integrate health sciences liaison services into a new medical education curriculum. Two full-time librarians are assigned to several departments as liaisons; duties for the school of medicine are shared between the two liaisons. Here, we describe several techniques employed to increase the library's presence for information literacy in the new curriculum.

Methods: The health sciences liaison librarians assigned to the school of medicine have for the past several years had a marginal role in the medical school curriculum. First-year medical students are required to take a "Scholarship and Research in Medicine" course, focusing on evidence-based practice, taught by a faculty member, with little input from librarians. Librarians have often only been consulted when a student needed to find additional sources for a research project, or a faculty member needed help with citations, etc. The school of medicine will implement a case-based/problem-based/team-based learning (CBL/PBL/TBL) curriculum in 2013, and we are using several methods to increase the library's presence in the curriculum. Methods employed include appointments to key committees, such as medical education, attendance at departmental faculty meetings, working with curriculum block planning teams, meeting with the research in scholarship course primary faculty, attending lectures and symposia given by faculty and students, creating LibGuides and online tutorials for specific courses and departments within the school of medicine, holding weekly office hours in the school of medicine, and networking through our liaison work with other health sciences departments.

Results: Coordinated efforts to "infiltrate" the medical school curriculum have produced viable results so far. A library resources orientation with all first-year medical students is scheduled for the fall of 2013. A meeting with the scholarship and research in medicine faculty member resulted in the scheduling of "lunch-n-learn" drop-in sessions for all interested medical students. Our presence at the medical education committee meetings has resulted in our taking the lead in helping develop a humanities resources component in the curriculum, and the librarians have already been scheduled for several course-specific instructional sessions in 2013. We continue to hold weekly office hours at the school of medicine, thereby becoming familiar with many of the medical school faculty and students.

Conclusions: Although we are not yet fully embedded within the medical curriculum, our collaborative efforts have greatly increased the library presence in the new medical curriculum beginning academic year 2013–2014.

191

Use of Mobile Technology to Access Health Information: A Case Study in Botswana, Africa Δ

Dineo Ketshogileng, Senior Librarian, Faculty of the Health Sciences, University of Botswana Library, University of Botswana, Gabarone, Botswana; **Anne K. Seymour,** Associate Director, Biomedical Library, University of Pennsylvania–Philadelphia

Objectives: The presentation poster will look at the following: Can mobile technology be a good alternative for providing health information in resource-limited settings? What challenges and benefits are there in providing health information through mobile technology in an African setting?

Methods: Use of mobile technology in health care has gained prominence in recent years. The use of this technology has started to be explored in Sub-Saharan Africa. Botswana started its first medical school in 2009 and, in the following years, expanded by offering postgraduate programs based in the country hospitals. Surveys conducted in 2008 and 2010 revealed that the residency sites did not have access to library services and resources or reliable Internet service. The University of Pennsylvania Perelman School of Medicine and Botswana-UPenn Partnership in collaboration with the University of Botswana School of Medicine and Library provided residents with smartphones loaded with medical applications to support their research and clinical decision making. Feedback on the program gathered through surveys will be reported. Data on use of the mobile devices for access to medical information will be gathered.

Results: The results of the study indicated that over 90% of the residents utilized the smartphones to access information related to work and leisure; 98% of participants further expressed that the phone was used to solve clinical queries and provide other health-related information. Self-reported data usage by 18 of the 19 participants revealed that residents accessed the disease and drug reference applications. A focus group discussion with some of the residents reveal that the smartphones serve as the main source of information and they further view the phones as libraries in their pockets.

Conclusions: Our experience with this project in Botswana, consistent with multiple reports in the literature, demonstrates that mobile phones increase access to clinical decision support and help to bring clinical decision making closer to patient care. Furthermore, the use of mobile devices allows access to information in remote and very resource-limited settings, further reducing the gap between rural and urban settings. Physicians in rural areas have as much support as a doctor in an urban hospital with reliable Internet connectivity. This project has enabled physician trainees and physicians to make health impact where the need is greatest. Future plans are to scale up the program to medical students and additional residents and add tablet devices.

195

User Communities and Discovery

Nicole R. Theis-Mahon, Head, Collection Development and Acquisitions, Bio-Medical Library, University of Minnesota–Minneapolis

Objectives: From 2008–2012, the University of Minnesota libraries conducted a multi-phase approach to analyze our users discovery needs and identifying a suitable webscale discovery solution. Phase 2 centered on developing a vision and codifying best practices for exposing resources to our users. One aspect of this work included researching and investigating the numerous and varied users communities and their discovery and delivery needs at the University of Minnesota.

Methods: To research the discovery needs of the University of Minnesota's user communities at the libraries charged a subgroup to create a set of personas that represented a varied cross-section of user populations. Members of the subgroup provided anecdotal knowledge about user expectations and information seeking habits. This information was then compared to a 2009, survey that showed satisfaction differences in users' experiences with the library's catalog and was coalesced with information from library

literature and interviews with liaisons; creating a set of brief personas. The subgroup found that while the discovery needs of users at the University of Minnesota were similar to counterparts at other large academic institutions, there were differences among the varied disciplines as well as a user's role (undergraduate, graduate, faculty, etc.). A Google site was created that that organized and provided about information-seeking needs broken down by user affiliation and discipline.
Results and Conclusion: The University of Minnesota charged a Discoverability 3 task force in March 2011, to draft evaluation criteria for a discovery solution. The greatest challenge for this group was reconciling vision and various discovery and delivery needs of our user communities set forth in phase 2 with the limitations of current discovery systems. In fall 2012, the University of Minnesota libraries announced the implementation of Primo Central. As of this time, the libraries are working on implementing Primo Central and have not explored options for customized information delivery to our various user communities through our discovery layer, and it is uncertain to what extent the libraries will be able to do this in the future.

199
Using LibQUAL to Compare Health Sciences Students' Library Needs with Students in Other Disciplines Δ
David A. Nolfi, AHIP, Health Sciences Librarian and Library Assessment Coordinator; **Bridget Euliano,** Acquisitions Librarian; **Marcia E. Rapchak,** Instruction Librarian; **Allison B. Brungard,** Reference Librarian; **Tracie J. Ballock,** Head, Collection Management; **Joseph Nelson,** Circulation Manager; Gumberg Library, Duquesne University, Pittsburgh, PA
Objectives: Many universities are adding nursing, allied health, and pharmacy programs. General academic libraries must often support these programs, while continuing to support the humanities, social sciences, and other disciplines. This study seeks to compare the library and information needs of health sciences students with other students. It also aims to address how libraries can efficiently support programs with disparate needs.
Methods: The authors used the LibQUAL survey in 2012 to assess user expectations and needs in a general academic library that serves 10 university schools with 151 academic programs, including 3 health sciences schools with 25 programs. LibQUAL has 22 core questions divided into 3 domains—Information Control (IC), Library as Place (LP), and Affect of Service (AS)—as well as additional forced-choice questions and an open-ended comment box. Core questions include Likert scales that enable respondents to indicate their minimum and desired expectations of library functions as well as their perceptions of how the library performs those functions. The poster presents descriptive statistics for allied health, nursing, and pharmacy students' responses and compares them to humanities, social sciences, and other disciplines' responses. The authors use thematic analysis to compare how comments differ between health sciences and non-health sciences students.
Results: A total of 1,311 respondents completed the survey university-wide. Health sciences participants comprised 39% of the total, (183 allied health, 115 nursing, 214 pharmacy). Of the remaining respondents compared, 108 were humanities, 67 social sciences, 92 natural sciences, and 51 for leadership and professional advancement (LPA). Scores for nursing and LPA consistently ranked near the top in IC, AS, and library outcomes and satisfaction. Scores for pharmacy, allied health, social sciences, humanities, and natural sciences were mixed. Nursing graduate students' scores ranked substantially higher than nursing undergraduates and faculty as well as all other graduate students. Library use questions show that 38% of nursing respondents never use the library building, compared to 8% of pharmacy, 3% of allied health, and 7% of all respondents.
Conclusions: Comparing LibQUAL scores among health sciences schools and other programs is difficult because of their varied nature (clinical, business, basic science, social science). At Duquesne, there appears to be a correlation between enrollment in distance learning programs and higher scores for several questions. Possible factors are the library's aggressive strategy to acquire electronic resources, additional instruction, services provided to distance students, and problems with the library building.

203
Using Quick Response (QR) Codes to Discover E-Books Δ
Michelle Kraft, AHIP, Senior Medical Librarian, Cleveland Clinic Alumni Library, Cleveland Clinic, Cleveland, OH
Objectives: Increase awareness and usage of library's electronic book collection through the utilization of quick response (QR) codes in the library stacks.
Methods: Although the library has many electronic books, they are only found by searching the catalog. Librarians noticed many patrons do not use the catalog to find books, instead they browse the stacks. The library has begun to increase its e-book collection; some newer titles are only available online while some titles were never in print. Patrons browsing the stacks will be unaware of these e-books. Subject specific QR codes were created. When each code is scanned, the patron's mobile device displays a list of the e-books in that subject area. These codes were placed in the library stacks according subject and call number. The codes serve as gateway to the online texts for patrons with mobile devices. The codes also serve as a visual reminder to check the catalog to patrons without mobile devices.
Results: Results were not as successful as we had hoped. As of November 2012, the 3 most popular subject areas scanned were anesthesia and surgery (54 scans), physiology (35 scans), and neurology (22 scans). Geriatrics, gynecology, and pulmonary were not scanned. Since the barcodes were among the specific subjects on the shelves, some subjects had more QR codes representing them than others due to the collection size. The physical cardiology and nursing collection occupies the most shelf space, therefore had the most QR codes dispersed to adequately cover their section. Despite the greater number of QR codes for these subjects, they did not receive the most scans. Cardiology had 6 codes among the shelves, and nursing had 13 codes among the shelves, yet they only received 21 scans and 13 scans.
Conclusions: Several factors may have prevented the QR codes from becoming popular. At the launch of the project, several e-book vendors implemented ID and password barriers for viewing their books on mobile devices even while on campus. This caused a great deal of frustration and confusion. Additionally the library's online public access catalog (OPAC) is not mobile optimized. People scanning the codes were brought to a subject specific list of e-books within the OPAC. This list was viewable but people had to expand it on their devices. Additionally, when people tapped on the book within the list they were given the OPAC record which contained the link to the e-book. The non-mobile friendly OPAC view, as well as several taps needed to view the e-book, may have frustrated users. Some subjects appear to be more popular as e-books among users, and there appears to be little correlation between a subject's physical collection

size and its e-book popularity. As noted earlier, cardiology and nursing have the largest physical collection but were not the most popular QR code scanned. Anesthesia was not the smallest physical collection; however, the institution's anesthesiology residency program has a completely online curriculum, which probably explains that subject's number of scans.

211

Video versus Online Text Tutorials: Consideration of Learning Styles Δ

Jill Eileen Foust, Adjunct Faculty, School of Information Sciences, and Reference Librarian; **Julia C. Jankovic,** Technology Services Librarian; Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

Objectives: Online tools play an important role in educating library users. Research has shown that adults mainly use tutorials to solve specific problems, with learning as a secondary consequence. This poster describes the results of a comparative study undertaken at the University of Pittsburgh's Health Sciences Library System to determine the learning preferences of library users using instructional video tutorials versus online text tutorials to accomplish the same task.

Methods: Three similar video tutorials and three comparative online text tutorials were created to instruct library users how to access full-text articles in three databases: PubMed, Ovid MEDLINE, and PITTCat, an online catalog. Each video was three to four minutes long, and each online text tutorial was the equivalent of two to three printed pages. The tutorials were then linked from the library's "How Do I?" website. Seven months (June-December 2012) of data describing usage patterns for each tutorial was compiled using Webtrends Analytics. Two librarians analyzed the data to gain insight into the type of online tools library users preferred when given the option between video or online text tutorials for learning a task.

Results: Over the 7-month period, text tutorials were viewed 85% more often than video tutorials. There was a significant increase in text tutorial views in September and October. Video views remained fairly constant but decreased considerably in November and December. When examining views by database, the preference for text over video is true for all 3 resources. From June-December, the Ovid text tutorial was viewed 39% more often than the video tutorial. The PITTCat text tutorial was viewed 222% more often than the video tutorial. The PubMed text tutorial was viewed 19% more often than the video tutorial.

Conclusion: This study is based on an informal usability test targeting novice users. The overall results indicate that considerably more users preferred to view online text tutorials over video tutorials for finding full-text articles.

215

Visualizing an Inventory of Data-Related Resources in the Health Sciences

Joanne Rich, Information Management Librarian; **Amy L. Harper,** Clinical Librarian; **Diana K. N. Louden,** Translational Research and Collaboration Librarian; **Leilani A. St. Anna, AHIP,** Information Management Librarian; **Sarah Safranek,** Information Management Librarian; **Angela S. W. Lee,** Social Work Librarian; **Ann Whitney Gleason,** Head, Systems; **Lisa Oberg,** Head, Outreach Services; Health Sciences Library; **Tania Bardyn,** Director, Health Sciences Library, and Associate Dean; University of Washington–Seattle

Objectives: Data literacy is becoming an expected, if not native, competency in academic and medical librarianship. The transition to data literacy may be eased by having an understanding of the resource types in use and their application to the practice of librarianship. This poster aims to develop an inventory of data resources available in the health sciences.

Methods: Information was gathered from a wide variety of sources. Known sources in the e-science field were reviewed for health sciences content. Traditional literature searches were conducted in health sciences databases. Web searching was also used to find other relevant literature and organizations that contribute to this area. Colleagues from information science, biomedical, and data services fields were contacted to provide suggestions for additional information gathering. Information regarding data tools and resources used in health sciences settings were collected in a database along with brief annotations. Resources were reviewed as a whole then categorized by type such as data management policies or requirements, data sets, data repositories, ontologies, and data languages. The resulting categories and individual resources were visualized in a web-based format for public sharing.

Results: Based on an environmental scan, five broad categories of data resources were identified: data formats and languages, repositories, and visualization, sharing, and citing tools. A Data Resources in the Health Sciences LibGuide was created to house the identified resources. Tabbed pages were created to identify the user's task at hand: find data, preserve/store data, describe data, visualize data, share data, and cite data. As the list of identified resources grew quickly, a decision was made to include brief descriptive information for each data activity and provide pointers to collections of resources and services rather than include exhaustive lists as appropriate. The LibGuide will continue to grow as the field of health sciences data management matures. The resources identified on the LibGuide was visualized in an resource description framework (RDF) graph as a nod to the rising linked open data movement.

Conclusions: An environmental scan revealed a well-developed ecology of data management resources and services and many existing library help guides in the academic community. The majority of these guides were general in nature and addressed broad disciplines. By compiling a health sciences focused inventory of data resources, we offer a starting point for librarians and researchers in their approach to data literacy and data management practice.

219

What Factors Contribute to or Inhibit Publishing among Medical Librarians? Δ

Skye Bickett, AHIP, Reference and Education Librarian, Library, Philadelphia College of Osteopathic Medicine-Georgia Campus, Suwanee, GA; **Christine Willis,** Librarian, Noble Learning Resource Center, Shepherd Center, Atlanta, GA; **Melissa Wright,** Assistant Professor and Reference Librarian, Instructional Services, Rowland Medical Library, University of Mississippi Medical Center–Jackson

Objectives: To discover what factors influence librarians to publish or present their work. The study aims to determine what type of publications and presentations are most prevalent, what external factors impact the decision to publish or present, what internal factors affect the decision, and why one chooses to do one rather than the other or both.

Methods: Data were collected using an electronic questionnaire sent to various email discussion lists, including MLA, the Special Libraries Association, the Association of Academic Health Sciences Libraries, and regional MLA chapters. The question-

naire was developed by the researchers and it consisted of both quantitative and qualitative items. Participants were 209 health sciences librarians from across the United States. However, 3 sets of questions regarding presentations of research caused confusion among many of the participants, and the number of poster vs. paper presentations did not match their total number of presentations. Only the 102 participants whose responses were correctly matched were included in that part of the analysis. Factors affecting publication of journal articles were analyzed using multiple regression. A combination of descriptive statistics and axial coding were used to determine factors influencing and inhibiting publication and presentation of research.
Results: Responding librarians had no strong preference for publishing or presenting but preferred both equally at 50.8%. They did have a preference for quantitative research over qualitative or mixed methodology. There was an almost equal mix of peer reviewed and non-peer reviewed publishing. Medical librarians tended to present their research at all conference levels: local, regional, and national. Most of these presentations were in poster format. Overall the most common factors that influence publication or presentation of research were an interest in conducting research, encouragement from a colleague or supervisor, resume enhancement, and interest in learning new information. On the other hand, factors that inhibit medical librarians from publishing or presenting were not enough time, not encouraged to do so by colleague or supervisor, no mentor to assist with the process, and a lack of travel funds.
Conclusions: In order to promote publishing and presenting library schools, managers and those who have been in the field for several years should introduce new librarians to research through encouragement and mentorship. Librarians who have published or presented should show how being interested in learning new information about the profession will enhance professional capabilities, possibly leading to speaking engagements or promotions. Conducting research and presenting or publishing the results also enhances one's resume, which can lead to similar opportunities. Lastly, those who want to conduct research, but feel they do not have time, could speak with their managers about adding an original research project to their workflow. Incorporating one or more of these actions can encourage more librarians to become interested in conducting research and disseminating the knowledge they gain, thus increasing the knowledgebase of our profession.

223
What the EndNote Blog Reveals: How Researchers Search for Helpful Tips?
Yingting Zhang, AHIP, Information and Education Librarian, Robert Wood Johnson Library of the Health Sciences, University of Medicine and Dentistry New Jersey–New Brunswick
Question: Librarians compile useful resources; create library guides and toolkits for users. But are users taking advantage of these short cuts that were specifically prepared for them?
Objective: To determine how users find the EndNote blog to solve problems they have using EndNote bibliographic management program.
Methods: The usage statistics of the EndNote blog were carefully analyzed and studied. Comparing the usage month by month, year by year, the blog usage trend was depicted and its chart was formulated. A close look was also given to how the users find the blog for help by analyzing page referrals, search terms entered, and navigation patterns.
Results: It was expected that many referrals would initiate from the library website where a link to the blog is available. Surprisingly, almost all of the users including faculty, staff, and students approached the blog by searching for the desired information in the Internet. Very few users were actually referred to the blog from the library website. This phenomenon makes one wonder how many users are actually utilizing the work librarians supply them via the library website.
Conclusion: Users tend to prefer searching to navigating or browsing when they are looking for quick helpful tips. Being aware of this users' preference, librarians need to think outside the box in providing helpful tips to their users. Creating dynamic websites with strong search capabilities is preferable. Supplying tags to the information posted definitely helps speed up users' searching process.

227
What They Want, When They Want It: Cost-Effective on Demand Acquisitions Strategies
Theresa Arndt, Associate Director, Library Resources and Administration, Waidner-Spahr Library, Dickinson College, Carlisle, PA
Objectives: Researchers requiring access to specialized journals were not satisfied waiting even a short time for interlibrary loan. However, the library could not sustain subscriptions to a wide range of specialty journals, each of which might be used by only a few people. We sought to implement services that would result in high user satisfaction, while containing library costs.
Methods: To meet our objectives, we first developed a local "pay-per-view" strategy, allowing researchers in selected disciplines to purchase articles directly online from any source and charge the cost back to the library. A cap on the total budgeted for this service has never been exceeded. We also implemented a commercial service that makes thousands of online journals available via our link resolver system without prepaid subscriptions. The library pays only when a patron downloads an article. If a certain threshold of downloads is met from a specific journal, a more cost-effective subscription is started automatically. Successes with these two article services encouraged us to expand the demand-driven acquisition approach to e-book purchasing. E-book records are placed in the library catalog, but the e-books are only purchased by the library when they are accessed.
Results: Researchers have charged back far fewer "pay-per-view" articles than was anticipated. User satisfaction is high. Users of our commercial article on-demand service access articles via our link resolver and are unaware that the library does not have a subscription. Total expenditures are less than when the library relied solely on subscriptions. Librarians select on-demand e-books in the same YBP/Gobi system through which they make purchases, making instant access available to many more books than we could afford to purchase "just in case." A paid short-term-loan option prior to purchase saves money over purchasing e-books that will be used infrequently.
Conclusions: On demand purchasing can successfully meet the needs of researchers, resulting in increased instant access to a wide array of information sources, high patron satisfaction, and budgetary savings for the library.

231
What Women Want: Reenvisioning a Resource through User Needs and Usability Testing Δ

Laura Bartlett, Technical Information Specialist, Outreach and Special Populations Branch, National Library of Medicine, National Institutes of Health, Bethesda, MD
Objectives: To gain a greater understanding of audience needs in understanding and using women's health research and improvements to the usability of the resource. Research on women's health and sex differences is a new and specific field of study that is used by various audiences. In providing a portal, we have to meet several needs of different user audiences.
Methods: Comprehensive audience analysis and usability evaluations were conducted with multiple user groups. Audiences of interest are: senior career researchers, junior researchers, advocacy groups, media and communication professionals, congressional staff, and consumers. Audience members participated in a focus group tailored to their specific needs and usability testing of the current resource. The usability study consisted of a sit-down exercise of navigating the resource and completing a card sort to group similar information currently on the resource.

236

A Librarian-Faculty Health Literacy Education Intervention in a Family Medicine Residency Program: Measuring Its Impact Δ

Andrea Szwajcer, AHIP, Clinical Librarian, Carolyn Sifton Helene Fuld Library, St. Boniface Hospital; **Kerry Macdonald,** Hospital Librarian, Seven Oaks General Hospital Library; **Brent Kvern,** Associate Director, Enhanced Skills Programs, Family Medicine; University of Manitoba–Winnipeg, Canada
Objectives: The objectives of this study are: (1) To establish the baseline knowledge of health literacy and the perceptions of its use in practice among the academic family physicians and first-year family medicine residents in the training program, and (2) to determine the impact of an education intervention on the willingness to employ health literacy principles among family practice residents.
Methods: Setting: 3 academic family medical teaching clinics. Intervention (posttest respondents): First-year family medicine residents (FMRs) (n=7). Comparison group: All first-year family medicine residents (n=8) and full-time physician faculty (GFT) in the department of family medicine (n=14). The intervention group received an education session developed and delivered by a librarian-faculty team. The intervention includes health literacy communication strategies, including the positive management of the "Dr Google effect"; and methods of managing patient education information for effective point-of-visit delivery. Surveys assessing health literacy were administered at baseline to faculty members as well as the FMRs and to the FMRs following the health literacy intervention.
Results: In defining health literacy, the majority of responses across all groups reflected a patient skills focus rather than a universal set of skills required by both patient and provider/system. A majority of both faculty and pre-test resident groups underestimated the prevalence of low health literacy in their patient population. In the pre-test group, 11% reported feeling "not at all" confident in recommending high-quality consumer health website, whereas there was 0% reporting this confidence level in the post-test group. Residents' knowledge of indicators associated with low health literacy increased 10%–20% across all indicator categories following the intervention. In assessing the knowledge of strategies in addressing low health literacy, post-test responses were higher for all strategies than both pre-test and faculty.
Conclusion: Given the movement toward patient-centered care, self-care, and patient education, the survey results demonstrate the need for educating medical residents on the principles of health literacy, including the physician-patient relationship and "best-practices" for communication. The project successfully raised awareness of health literacy. It showed the importance of incorporating health literacy principles in delivering patient education and developing the physician-patient relationship in the curriculum. During the project, the family medicine department was undergoing a curriculum renewal, and the significance of the project highlighted gaps in the curriculum. The project also demonstrated the role medical librarians have in supporting and promoting health literacy both in terms of physician professional development and patient care.

240

If You Build It, They Will Come: Developing and Conducting Scholarly Communications Faculty Forums Δ

Katherine V. Chew, Associate Director, Research, Collections, and Access Services, Health Sciences Libraries, University of Minnesota–Minneapolis
Objectives: How do you inform faculty, students, and administrators about the challenges facing scholarly communications? What strategies can you develop that resonate with faculty to get them engaged in learning about the issues and potentially transform them into advocates? Developing and conducting campus-wide faculty forums are an extremely effective way of getting faculty involved in the scholarly communications debate.
Methods and Results: This poster demonstrates the lessons learned and best practices in developing and conducting successful faculty forums on scholarly communications/open access topics using illustrative examples from past forums. Issues addressed include: developing forum themes that strike a chord with faculty and students; pros and cons of deciding whether or not to have an outside speaker and the challenges involved; recruiting faculty speakers; deciding on venues, dates, times, marketing tips, and tricks; applying for continuing education credit; the nitty-gritty of successful event planning; and project management.

244

Embedding Patient-Centered Information into a Patient-Centered Medical Home Δ

Terry Henner, Library Director; **David Fiore,** Professor and Vice-Chair, Family and Community Medicine; School of Medicine, University of Nevada–Reno
Objectives: The aim of this initiative is to assess whether a library intervention creating a patient-centered information portal in a clinical setting can affect a clinician's ability to provide patient education materials and improve patient self-care. It also assessed the value of placing iPads at the disposal of physicians and patients to facilitate access to patient education materials.
Methods: Working within the construct of a patient-centered medical home, this initiative created a multifaceted mechanism to facilitate patients' use of information technology and encourage greater patient involvement in their own medical care. To improve access to reliable consumer health education information and help patients engage in meaningful discussions with health care providers, this project targeted four key objectives: (1) creation of a patient education web portal integrated into the patient-centered family home clinical environment, (2) provision of tablet devices in examining rooms for clinician and patient use,

(3) creation of an online educational resource to guide patients in the creation and use of personal health records, and (4) participation of on-call librarians to provide mediated virtual support to assist patients in using health information resources.

248

Building Evidence-Based Practice Skills in Medical Students with a Four-Year Curriculum Integrated Plan Δ

Amy Blevins, Clinical Education Librarian, Hardin Library for the Health Sciences, University of Iowa–Iowa City

Objectives: The goal of this project is to create a structured educational plan for medical students that instills information literacy skills to support evidence-based practice and lifelong learning. The library instruction sessions will be curriculum-based and correspond with course lecture materials and required assignments, both in the classroom and on rotation.

Methods: Since June 2010, the new clinical education librarian has been teaching library instruction sessions for the first-, second-, and fourth-semester medical students. Seeing an opportunity to create a structured program where each semester builds on the last, she met with course directors to discuss the students' assignments and what skills they needed. Once a solid plan was in place, the librarian reached out to the third-semester course director so that a four-semester plan for library instruction could be implemented. The librarian also met with students at the beginning of their third academic year to reiterate literacy skills before heading into their clerkship rotations. Finally, evidence-based medicine (EBM) sessions were established with three required clerkships.

Results: At this time, medical students receive one hour of library instruction during each semester of their first two years in medical school. Each semester builds on the skills from the previous semester with special attention to EBM principles along with information literacy skills. An algorithm was created in conjunction with the EBM curriculum developer to reinforce the use of multiple resources. Clerkship EBM sessions have been modified to ensure the development of different skills and exposure to new resources despite the use of very similar assignments by the clerkship directors. Assessment is being done through a combination of formal and informal evaluation. Satisfaction-based surveys have shown that students are appreciative of the lectures, with interest decreasing significantly from the first semester to the fourth. The majority of the students have been able to answer exam questions covering material from the preclinical library sessions. The search skills of students in clerkships are improving over time, as demonstrated by their EBM assignments.

Conclusions: The Carver College of Medicine is implementing a new curriculum starting in August 2013. This involves a restructuring of the courses that contain the library sessions and will result in different opportunities and challenges in the future. The librarian is optimistic about future collaborations with course directors and believes that the library instruction sessions will continue to evolve and improve.

252

One Health for College Students: Partnering Academic Libraries with College Student Health Services to Provide Health Information to Pacific Islanders

Paul Burton Drake, Assistant Professor and User Services and Document Delivery Librarian, Robert F. Kennedy Memorial Library, University of Guam, Mangilao, Guam

Objectives: Pilot projects were to create collaborative partnerships between college library and college health services to develop an outreach program to minority students. (1) Partnerships between college libraries and college health services will be fostered to develop strategies to provide Pacific Islander college students with health information. (2) Library and student health services personnel will be more knowledgeable of, and able to provide reliable health information.

Methods: Participating library personnel will receive orientation to National Network of Libraries of Medicine (NN/LM) services, and library and college health services personnel will receive training on consumer health resources such as MedlinePlus and National Library of Medicine (NLM) resources. The partnership at each college will determine up to three specific Healthy People 2020 topics that are relevant to their college students. A representative pilot group of students at each college will be selected to receive training on how to use appropriate health information sources. Presentation methodology may vary based on cultural and linguistically appropriate setting. Student groups will use a slide for a digital photo frame for consumer health promotion.

Results: Pilot projects are continuing through March 2013.

Conclusions: Pilot projects are continuing through March 2013.

256

Administering a New "Cyber Rotation" for Fourth-Year Medical Students

Montie Dobbins, Head, Access Services; **Julia Esparza, AHIP,** Clinical Medical Librarian and Assistant Professor; **Dixie A. Jones, AHIP,** Director; Medical Library; **Jane Eggerstedt,** Associate Dean, Academic Affairs; Louisiana State University Health Sciences Center–Shreveport

Objectives: In 2012, the associate dean for academic affairs approached the library to assist with the development and administration of a course selective on nutrition for the university's fourth-year medical students. This selective is intended to allow students a portable "cyber rotation" during the interview-intensive months of their senior year.

Methods: While involved in the curriculum, this is the first time librarians at the university have been approached to serve as course directors for a mandatory selective. They were asked to administer the new cyber rotation because past collaborations exhibited their comfort with technology, proven organizational skills, and expertise in objectively evaluating resources. The selective is designed with the intention that senior students have a valuable educational experience during one of the three months they travel for residency interviews. The pass-fail course consists of nutrition modules plus a requirement for each student to create a patient education project focused on nutrition. This presentation will share how librarians worked with the associate dean for academic affairs, how the course was shaped for the students, lessons learned during the first year of the course, and future plans for continued improvement.

Results: After the first year of administering this course, the librarians learned there were some changes that would be necessary both to clarify course expectations and to improve student cooperation. Some changes were implemented after completion of the first block, and other changes will be made for next year.

Conclusions: While this is a rewarding experience, it is not without its challenges. Course directors look forward to seeing how the selective will improve as they continue to make changes.

260

Building Capacity in Finding, Organising, and Using Health Information in Serving the Health Information

Needs of Health Care Professionals to Influence Positive Health Outcomes Δ

Masimba Muziringa, Medical Librarian, College of Health Sciences Library, University of Zimbabwe, Harare, Zimbabwe; **Lauren Maggio,** Director, Research and Instruction, Lane Medical Library, School of Medicine, Stanford University, Stanford, CA

Objectives: Improved access to health information by health care professionals and researchers is essential to inform and measure positive health care outcomes as envisaged by the positive global health care benchmarks. This study sought to understand how health care professionals currently obtain evidence-based health information, determine their health information literacy level, and understand how access to health information can improve health outcomes.

Methods: A review of the biomedical literature was undertaken to refine the purpose of the study, to attempt to identify existing survey instruments, and ultimately to facilitate the crafting of a survey. The survey contained a combination of open-ended and multiple-choice questions. The survey was administered in a paper-based format to health care professionals and health researchers at an academic medical center. To improve the completion rate of the survey, the librarian authors worked closely with the health care professionals' administrative staff to ensure completion. One hundred and thirty-two questionnaire surveys were completed from a total of 140 initially sent out. All completed surveys were collected and responses compiled for quantitative and qualitative analysis by an international team of medical librarians.

Results: The response rate was 79.3%, of whom 62% of respondents used evidence based databases such as PubMed, Cochrane Library, and Scopus. Overall, it was found out that respondents had high awareness of these resources but had limited searching and retrieval skills, suggesting a problem of under-utilisation of quality health information.

Conclusions: There is a directly proportional relationship between access and utilisation of quality health information and searching and retrieval abilities. This may suggest a need for further training among health care professionals for optimum utilisation to inform improved health care outcomes.

264

Preventing a Knowledge Vacuum as We Plan for the Future

Zachary E. Fox, Assistant Director, Administration; **Taneya Koonce,** Associate Director, Research; Knowledge Management and Eskind Biomedical Library; **Nunzia Bettinsoli Giuse, FMLA,** Assistant Vice Chancellor, Knowledge Management, Director, Eskind Biomedical Library, and Professor, Department of Biomedical Informatics and Department of Medicine; **Annette M. Williams,** Associate Director, Library Operations; **Frances H. Lynch, AHIP,** Associate Director, Administration; **Deborah H. Broadwater,** Assistant Director; Knowledge Management and Eskind Biomedical Library; Vanderbilt University Medical Center, Nashville, TN

Objectives: To describe the knowledge management approaches taken to ensure that tacit knowledge, accrued by senior librarians nearing retirement age at a large academic medical center, is evaluated effectively. This effort is aimed at acquiring a better understanding of how librarians can retain best practices, while reorganizing their operations for greater effectiveness and efficiency.

Methods: MLA's 2007 membership survey indicates that as many as sixty of its members could retire within the next ten years. As information professionals retire, organizations are faced with the potential loss of decades' worth of experiential knowledge. Unless measures are taken through appropriate steps to knowledge manage senior librarians' expertise, our profession could be left feeling that a knowledge vacuum of devastating proportions has occurred. Capturing tacit knowledge, on the other hand, will provide libraries the opportunity to retrofit this knowledge with a vision meant to meet the needs of a dynamic organization, exactly at a time when libraries' added value needs to be clearly understood and embraced by leadership to receive its full support. Eskind Biomedical Library is simultaneously applying its long-standing training and mentorship model to both harvest tacit knowledge and plan for its future innovative and progressive services.

Results and Conclusions: To avoid a potential knowledge vacuum created by the retirement of senior librarians, Eskind has applied its proven training and mentorship model to ensure that experiential and tacit knowledge are retained for key functions. Our highly experienced senior librarians, with vast knowledge of professional and institutional best practices, have mentored junior librarians and verified their acquired skills through real-world testing. Once they have exhibited a deep understanding of the content, junior librarians receive an increasing number of responsibilities for the areas they serve. Further, junior professionals have been working in tandem with their senior peers to create rigorous, systematic documentation of key institutional and departmental practices to ensure interoperability, as well as procedures for improving on already established processes. Areas related to the administration of the library's budget, the annual budget creation process, collection development, grant management, and processes related to personnel have benefited from the development of streamlined documentation. The body of created information and tools, steeped in proven knowledge management practices, has already demonstrated significant added-value for the areas of budget, personnel, and some specific areas of tech services (e.g., contracts, cost per use, digital library maintenance, and vendor communication), and is anticipated to aid young professionals as they step into different roles in the future.

268

Instituting a Library Dashboard as a Foundation for Evidence-Based Strategic Decisions

Karen Hanson, Knowledge Systems Librarian; **Theodora A. Bakker,** Biomedical Terminology Manager; **Stephen Maher,** Collection Development Librarian; NYU Health Sciences Libraries, New York University–New York; **Emily G. Morton-Owens,** Library Applications and Systems Manager, Information Technology, Seattle Public Library, Seattle, WA; **Deborah Peters,** Executive Assistant; **Karen Yacobucci,** Content Management Librarian; **Fritz Dement,** Assistant Curator, Assistant Director, Clinical and Branch Services, Head, Hospital Library Services, and Assistant Director, Access Services; **Stuart Spore,** Associate Director, Systems and Resources; **Jeff Williams,** Associate Director, Research and Education Services; **Neil Rambo,** Director; NYU Health Sciences Libraries, New York University–New York

Objectives: Libraries should be able to provide evidence of their contributions to the missions of academic medical centers. Libraries must evaluate their costs and services to ensure the effective use of resources. New York University (NYU) Langone Medical Center has shifted to a metric-driven decision-making

model, and the library has responded by using a dashboard to support strategic decisions.
Methods: Expanding on the Association of Academic Health Sciences Libraries (AAHSL) and Association of Research Libraries (ARL) statistics, the library identified other metrics that were critical to informing strategic decisions. The library created a dashboard to better visualize quantitative data on information resource use, online and in-person services, and cost. In addition to guiding planning, the data visualizations provided by the dashboard aimed to improve departmental and senior management understanding of library use across the organization. Visualizations of variances between departments and user categories allow the library to better identify and understand priorities for information resources acquisition, budget allocation, and new services. By using quantitative data to evaluate resource distribution, not only does the library improve its ability to meet the needs of its patrons, but it also documents its commitment to core medical center initiatives: patient care, research, and education.
Results: The dashboard infrastructure is now capturing statistics from most automated systems at the library. Some statistics are represented as graphics on a dashboard of tables and charts that is updated daily. The data have already produced rewards both in demonstrating value and in informing strategic planning. AAHSL and ARL statistics were assembled in much less time compared to previous years. As the library embarks on a strategic planning process, the compiled data provide tangible evidence of what patrons use and value at the library. Strategic planning has been accelerated by the recent destruction of two of the medical library's floors by flooding from Hurricane Sandy, and the data collected before the flood will play a role in determining priorities around how the library should be rebuilt. Finally, the data were used in a presentation to the dean to demonstrate core services and the heavy use of e-resources. The success of the dashboard has led to a much larger project using enterprise tools. This will provide further opportunities to improve visibility and highlight the value of the library.
Conclusion: A well-designed dashboard and data warehouse can not only contribute to evidence-based management decisions, but also provides an opportunity to demonstrate value to patrons and administration.

272

The Patient Education Computer Kiosk Project Δ

Jeffrey Coghill, AHIP, Eastern Area Health Education Center and Outreach Services Librarian; **Roger Russell, AHIP,** Associate Director, User Services; William E. Laupus Health Sciences Library; **Katherine A. Rickett,** Liaison Librarian, Brody School of Medicine; **Jamie Messenger,** Clinical Assistant Professor, Department of Family Medicine; East Carolina University, Greenville, NC

Objectives: To demonstrate use and usefulness of four patient information computer kiosks in four clinics in eastern North Carolina.
Methods: The librarians will measure the use of four kiosks purchased in April 2012 for patient use. The staff of the four clinics will also be polled to gauge use of these kiosks by patients who visit the clinic. The goal is to measure patient use of reliable information by using MedlinePlus as a quality resource for patient education. The librarians will also visit the clinics to interview patients to record their experiences with the kiosks. One goal is to get good, vetted information into the hands of the patients who need it. Another goal is to have the resource available to patients who are sometimes daunted by "clinical speak" used by health care providers. The kiosks can be utilized before or after patient visits to corroborate information gained in a doctor's visit.

276

Embracing Evidence-Based Practice: The Effectiveness of Small Group Literacy Interventions for Undergraduate Medical Education Students Δ

Susan Powelson, AHIP, Director, Health Sciences Library; **Caitlin McClurg,** Health Sciences Librarian, Library; **Fariba Aghajafari,** Assistant Professor, Department of Family Medicine; **Steven M. Edworthy,** Professor, Division of Rheumatology, Departments of Medicine and Community Health Sciences; University of Calgary, Calgary, AB, Canada; **Eddy Lang,** Senior Researcher and Associate Professor, Emergency Medicine, Alberta Health Services–Calgary, Canada

Objectives: To evaluate the impact of librarian-led small group information literacy sessions on the development of undergraduate medical students' evidence-based information management skills, including forming clinical questions, selecting evidence-based information resources, and constructing effective search strategies.
Methods: One hundred sixty second-year undergraduate medical students taking the "Applied Evidence-Based Medicine" course were asked to complete an online survey before and after a series of five fifteen-minute evidence-based information literacy sessions delivered by librarians to their preceptor-led small groups. There were fifteen students in each small group, and the librarians worked with the same small groups over the five-week period. The surveys covered confidence levels and awareness and use of resources. There was also an opportunity for students to provide additional open-ended comments. One hundred forty-four students responded to the pre-survey and 112 to the post survey. Data analysis was through simple descriptive statistics, reporting proportions for question responses.
Results: Instruction in a small group environment had a positive impact on student's evidence-based information literacy skills. The number of students likely to use MEDLINE increased from 31% to 63%. The number likely to consult a librarian increased from 27% to 13%. Students expressed increased confidence in their ability to create answerable clinical questions (8% to 56%), choose resources (26% to 47%), and find a systematic review (26% to 63%). Knowing where to search, how to create a search strategy, and how to reduce results were overcome as obstacles to finding evidence for patient care. Only 8.2% of the students identified knowing where to search as an obstacle after the instruction sessions, a marked decrease from the 37.6% prior.
Conclusion: Integrating information literacy instruction into small group seminars was an effective method to deliver information literacy skills. While we were concerned about the brief time allotted and the lack of hands on experience, the small group and presence of a physician preceptor created an environment where the importance of the skills could be emphasized. In addition, the small group setting allowed the librarians to develop relationships with the students. Although we only have anecdotal evidence, more students this year contacted librarians for one-on-one consultations and took advantage of the drop-in consultation services offered Monday-Friday 8:00 a.m.-4:30 p.m. One of the survey comments sums up the results: "I learned a lot from the librarian."

280

Beyond Translations: Serving Multilingual and Multicultural Populations

Yamila El-Khayat, Outreach Services Librarian; **Annabelle V. Nuñez,** MEZCOPH Liaison Librarian; Arizona Health Sciences Library, University of Arizona–Tucson

Description: The Arizona Health Sciences Library Outreach Team collaborates with both university health sciences center and community health partners in an effort to expand health information access and services for diverse populations. Beyond translating English-language health information and materials into Spanish, two bilingual, bicultural librarians work to develop health information materials and training curriculum to integrate sociocultural and linguistically appropriate aspects. A six-session program was put together by librarians at the Arizona Health Sciences Library in collaboration with the Arizona Telemedicine program and the Arizona Cancer Center to conduct training for community health workers/*"promotoras"* working along the US-Mexico border. The program covered basic computer literacy skills, website evaluation, trustworthy consumer health information sites, and how to integrate these into their programs. The program evaluations revealed high satisfaction with knowledge gained, an increase in confidence evaluating health information resources, and successfully integrating them resources into their program services.

284

The Health Sciences Library as a Transformational Partner in Community Health Information Outreach Δ

Shari Clifton, AHIP, Professor and Head, Reference and Instructional Services; **Phill Jo,** Reference and Instructional Services Librarian; Robert M. Bird Health Sciences Library, University of Oklahoma Health Sciences Center–Oklahoma City

Objectives: The purpose of this study is to describe the transformational role of a health sciences library in coordination with public libraries, other health professionals, and local networks through a variety of outreach activities for communities. The presentation is designed to evaluate outreach activities, identify potential obstacles for successful events, and provide tips and lessons learned for further application.

Methods: This study combines formative and summative evaluation methods. For formative evaluation, the objectives of outreach activities and how they meet the needs of local communities are examined. The unique nature of each event and the participation of public libraries, public schools, health care providers, and educators are considered. A number of participants and interactive activities are analyzed in quantity and quality. For summative assessment, this study looks at the cumulative impact of outreach activities, including how to find funding resources, build relationships with communities, and prepare staff to facilitate events. By combining formative and summative assessment, the presentation offers a holistic perspective in reaching out to health information consumers and highlights a health sciences library's transformational role in collaborating and cooperating with diverse communities.

Results: From May 2012 to December 2012, the Robert M. Bird Health Sciences library has been involved in seven different outreach programs including hosting an e-science symposium, exhibiting at health fairs, and teaching courses for public library staff. By conducting outreach activities, the library has strengthened its connections with health professionals, other librarians, library and information science students, public libraries, the university, and the local community. An analysis of the survey results from participants demonstrated successes, providing further recommendations for future outreach efforts.

Conclusions: Analysis of the data revealed key findings in the areas of strategic planning and the need for ongoing assessment of the effectiveness of outreach activities. Strategic planning should be based on clear goals and objectives as well as setting and redefining priorities to improve the quality of outreach services. Assessment of outreach activities is in line with monitoring the process, considering both quantity and quality, and identifying what is achieved and what difference outreach activities make for a community. Continuous assessment contributes to new program creation, maintenance or extension of successful existing programs, and avoidance of ineffective practices.

292

Online Education at the Point of Need: Growing a Video Program in a Time of Change and Constraints

Carol Shannon, Liaison and Information Services Librarian; **Nadia Lalla,** Coordinator, Collections and Information Services; Taubman Health Sciences Library, University of Michigan–Ann Arbor

Objectives: To create a larger and more efficient online video tutorials program to better serve not only our on-campus community, but also the increasing number of distance learning communities that are part of all five professional health sciences schools and the large academic medical center we serve.

Methods: Video tutorials complement, and increasingly replace, traditional teaching options. They are integral to the LibGuides we create for departments and classes and are important in our online learning environment. This past year was a time of transition in our program, with staff changes leading to the hiring of a student assistant. Creating a training program was challenging in the short time available, but it became clear also that our program was suffering from growing pains in other areas, and we needed to carefully evaluate our process to discover where the problems lay. We developed a spreadsheet to provide detailed tracking of each step of the video creation process, from planning to final approval. In addition, we assessed our training plan, focusing on training new staff in our production standards and in the video creation program.

Results: We identified problem areas in both production and training. We have developed and implemented a new production plan that is more effective and efficient. Our new training plan allows us to more easily integrate new staff (whether student or permanent staff) into the process, which will happen each year. We are now creating more videos for a larger and more varied set of users, as more programs move to an online environment.

296

A Proposal for Certification of Librarians as Partners in Systematic Reviews

Pamela Sieving, AHIP, Informationist, Education Services Branch, NIH Library, National Institutes of Health, Bethesda, MD; **Kay Dickersin,** Professor and Director, Center for Clinical Trials, and Director, US Cochrane Center; **Roberta W. Scherer,** Associate Scientist, Epidemiology; **Ann-Margret Ervin,** Assistant Scientist; Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD

Objectives: To present the rationale for and development of a program to certify librarians as knowledgeable, skilled partners in preparation of systematic reviews (SRs). Identification of relevant

studies to include in an SR is arguably the most important aspect of a high-quality SR and accordingly, a major responsibility to librarians. Certification of their expertise enhances credibility.
Methods: Librarians have unique, essential roles in development and conduct of systematic reviews. They develop comprehensive searches for pertinent studies, manage the identified literature, engage in data abstraction and critical appraisal of included studies, and manage the overall review process. We describe a set of core competencies for SR certification and a proposed course of study to achieve these competencies. Preparation includes knowledge of the history and principles of evidence-based medicine, conduct of systematic reviews, and critical reading and appraisal skills. The unique skills contributed by certified librarians include database selection and expert searching, including use of validated search strategies; knowledge of reporting biases and ways to address the issue (knowledge of gray literature and resources beyond those typically searched to answer clinical questions); project management skills; bibliographic file management; and access to professional networks and continuing education.
Results: Resources with which to master the core competencies and continually update skills and knowledgebases are increasingly available, and in formats accessible globally.
Conclusions: Certification offers confidence to librarians functioning as integral parts of a systematic review team and assurance to the team that quality and procedural standards will be met.

304

Focusing Resources in Support of Our Users Using the Balanced Scorecard Approach

Terrie Wheeler, Chief, Education Services Branch; **Keith W. Cogdill, AHIP,** Director; Division of Library Services, National Institutes of Health, Bethesda, MD

Objectives: In any resource-constrained environment, performance management systems that focus resources on an organization's strategic objectives are crucial to its future success. The National Institutes of Health (NIH) Library chose the balanced scorecard approach to performance management and has entered its second year of implementation.
Methods: Supervisors and team leaders at the NIH Library began in January 2012 by developing a strategy map within the balanced scorecard framework. This built on the library's vision and mission and identified eight strategic objectives. These objectives targeted the four perspectives of the balanced scorecard: resources, learning and growth, internal processes, and customer focus. Progress is monitored through measures that inform whether strategic objectives are being achieved, using predetermined thresholds and targets. The resulting strategy map is a tool that communicates the organization's story at any moment in time. This paper will discuss what the NIH Library has learned using the balanced scorecard, as well as its success with implementation to date.
Results: From July to September, 2012, the NIH Library prepared for a hard launch of its balanced scorecard on October 1. Now that metrics are populated, a better snapshot of the areas where we are strong, as well as where we need to grow, is seen. The metrics require assessment in several critical areas to identify the organization's overall success in each of the eight strategic objectives. One of the NIH Library Leadership Team is an owner of each of the objectives and reports on progress at leadership meetings.
Conclusions: The NIH Library has developed a system to integrate its strategic goals, performance plans, budget execution, staffing requirements, and internal processes into a seamless performance management system that will allow the library's leadership to manage resources and tell its story of innovation and service excellence to administrators and other stakeholders at NIH.

Poster Session 4

Tuesday, May 7, 1:30 p.m.–2:30 p.m.

HCC, Level Two, Exhibit Hall

4

One Online Site: A New Paradigm for MLA Concurrent Session Planning? Δ

Ramune K. Kubilius, AHIP, Collection Development and Special Projects Librarian, Galter Health Sciences Library, Northwestern University, Chicago, IL; **Melissa Rethlefsen, AHIP,** Education Technology Librarian, Learning Resource Center, Mayo Clinic, Rochester, MN

Objectives: To assess the effectiveness and usability of an online section/special interest group (SIG) program planning process for the One Health meeting and to investigate whether the time has come for the process to move online for future meetings.

Methods: Traditionally, MLA has required that section and SIG planners attend two on-site meetings that take place the year prior to the meeting being planned. An experiment grew out of necessity when planning for the 2013 international federated meeting that resulted in a meeting planning timeline that did not follow the usual pattern. An alternative method was devised, implemented, and tested. All 2013 program planners will be invited to participate in a survey to gauge their satisfaction with the online session theme planning process. A follow-up interview will be conducted with those planners who had earlier experience with the previous planning process.

Results: Thirty-four planners (from all 23 sections and 7 SIGs) responded to the survey. One respondent had not used the online planning site at all, due to inaccessibility of Google Sites at work. Of the remaining 33 respondents, 17 were first-time program planners. Responses about the site were generally positive (4 responses from experienced users were negative about usability, and 3 indicated it was ineffective). Nonusers of the online tutorials perceived the site's usability negatively or very positively, though perceived site effectiveness did not differ by tutorial usage. The overall online planning process was perceived slightly less positively, and 3 experienced planners felt the 2013 process was worse than their previous experience (same n=7, better n=5). Most planners favored adding an in-person component, though 3 felt it would not have benefited the process, and 11, primarily first-timers, were unsure. Communication challenges were mentioned in qualitative survey comments and focus group discussions, though it was acknowledged that the online process allowed more people to participate in a more efficient, trackable manner. Strong leadership, perceived as evident for 2013, could ensure future success with online planning.

Conclusions: For the online planning process to succeed in the future, an in-person component should be retained as a supplement.

12

A Link in the Chain: Measuring Hospital Libraries' Contribution to Care Quality Δ

Rebecca L. Bayrer, Health Sciences Library Manager, Health Sciences Library, Kaiser Permanente, South San Francisco, CA; **Suzanne Beattie, AHIP,** Health Sciences Library Manager, Health Sciences Library, Kaiser Permanente, Roseville, CA; **Elizabeth Lucas, AHIP,** Library Manager, Health Sciences Library, Kaiser Permanente, Santa Clara, CA; **Dawn Melberg,** Health Sciences Library Manager, Health Sciences Library, Kaiser Permanente, Santa Rosa, CA; **Eve Melton, AHIP,** Health Sciences Library Manager, Health Sciences Library, Kaiser Permanente, Modesto, CA

Objectives: This poster examines the ongoing implementation of a survey project to qualitatively and quantitatively assess hospital librarians' contribution to their organization. Faced with shrinking budgets and loss of physical space, the librarians at a group of related health care facilities needed a way to demonstrate their value to the organization and their measurable support of its mission.

Methods: A committee of librarians developed a framework to describe how library tasks related to organizational goals such as clinical care, education, and quality. The committee then developed an after-visit patron survey to assess libraries' performance on these metrics. The online survey was designed to be brief and anonymous, while capturing specific examples of librarians' value, and to be easily adaptable and transferable to other organizations. Six libraries piloted the survey in 2010 and found that librarians' work had a significant and measurable impact on care quality and staff knowledge in the pilot locations. In 2011, questions were refined for clarity and the project was expanded to ten additional hospital libraries within the larger organization. This poster will describe the results of the expanded project in 2011 and 2012, implementation challenges encountered, and directions for future work.

Results: Over the 22 months this project covers, more than 1,050 respondents, including both clinical and nonclinical staff, participated in the survey. Key findings include almost 1,000 people reporting a change in practice based on library research, and 50% reporting that the research assisted in avoiding an adverse event. Providing additional quantitative proof of librarians' effect on their hospitals is the result that 100% of respondents agreed with the statement that the library search saved them time.

Conclusions: The survey helped meet our needs for gathering quantitative evidence of the librarians' impact. Challenges in implementing this project included the differing workflow patterns among librarians, which resulted in uneven implementation of the survey process, survey weariness on the part of frequent library users, and the inability to accurately capture the number of survey requests initially being sent out. Future work will include centralizing and standardizing the process of sending out survey requests, periodic report-outs to organization leadership, and use for internal quality assurance.

16

A Solution in Sight: Collaboration to Improve Access to the World's Ophthalmic Information

Bette Anton, Head Librarian, Fong Optometry and Health Sciences Library, University of California–Berkeley; **Pamela Sieving, AHIP,** Informationist, Education Services Branch, NIH Library, National Institutes of Health, Bethesda, MD; **P. Kirubanithi,** Senior Librarian and Information Officer, Library and Information Centre, Aravind Eye Hospital, Madurai, India; **Suzanne S. Gilbert,** Director, Center for Innovation in Eye Care; **Katie Judson,** Grants and Development Coordinator; Seva Foundation, Berkeley, CA

Objectives: A Solution in Sight is a three-year project funded by the Elsevier Foundation. The partners are vision librarians in India, Nepal, Tanzania, Guatemala, Egypt, and the United States, and staff of the Seva Foundation. We work collaboratively to support Centers for Community Ophthalmology to reach VISION2020 goals. Our poster describes progress at the half-way point in the grant.

Methods: The Association of Vision Science Librarians (AVSL), partnering with the Seva Foundation, is building a learning community with participating resource center (RC) staff and in the international vision librarian network. Our goals are to support development of the RCs and increase knowledge and skills of RC staff, enabling them to increase the effectiveness of medical care, education, and research at their institutions; provide education and training for their institutions' staff and trainees in the use of online and print resources; and work with them to understand evidence-based health care principles and resources. An initial self-assessment by each RC's librarian of resources and needs was used to identify individual and common needs and design approaches to meet those needs using mentor-mentee relationships, sharing existing resources, acquiring and creating others, and developing training and coaching materials and skills.
Results: Networking and mentoring, training and continuing education, and building access to resources have been the focus of the first eighteen months of the project. We have conducted one-on-one training as well as small-group sessions at our first two workshops, at international conferences, and at RC sites, focusing on increasing both skill and confidence levels of participants. We use free teleconferencing software to overcome the challenges of geography. Mentors and mentees are working out individual relationships, and the new RC librarians are being integrated into the AVSL community. We have promoted the program's goals and achievements at MLA, American Library Association, and American Public Health Association conferences in 2012 and the 2013 Summit on the Science of Eliminating Health Disparities.
Conclusions: International working groups are both challenging and rewarding. This network is actively contributing to education, clinical care, research, and administrative efforts to eliminate the 90% of the world's blindness and visual impairment that is preventable or curable. It is also a continuous reminder the knowledge is a precious resource to share.

20

Access to Mobile Resources: How Does It Affect the Clerkship Experience? Δ

Alice Stokes, Library Assistant Professor; **Laura Haines,** Library Associate Professor; **Jeanene Light,** Library Associate Professor; Dana Medical Library; **Fred Pond,** Library Associate Professor, Bailey-Howe Library; University of Vermont–Burlington

Objectives: To evaluate the perceived benefits of access to library-licensed mobile clinical decision support resources in clinical medical education.
Methods: A cohort of medical students was surveyed midway through the clerkship year. Dana Medical Library offered instruction on clinical mobile resources at the beginning of the year. Students were offered a subject guide and assistance with authentication. Assessment methods included web analytics measuring the utility of the subject guide and a survey. Survey questions gathered data on access to mobile devices, relevance of instruction, use of library-licensed mobile resources, and benefits and barriers to their use in the clinical setting. Students were also asked whether access to mobile resources facilitated comparable educational experiences across clerkship sites.
Results: The survey was sent to all 111 students from the University of Vermont College of Medicine class of 2014; 31 completed the survey, with a completion rate of 28%. All respondents owned a mobile device, despite efforts to recruit both users and non-users. Nearly 75% of respondents reported using an iPhone. About 90% of respondents brought their mobile device on rotation. Generally, the wireless access at each clerkship site was rated good or excellent. Of the 60% of respondents who attended the instruction session on mobile resources, 94% found the class helpful. Half of the respondents looked at the Mobile Apps subject guide; 70% of those who did found it helpful. A significant increase in page views was reflected in subject guide usage statistics immediately following the instruction session. Approximately 25% of respondents sought out individual assistance at the library.
Conclusions: Respondents suggested improvements to library instruction such as distributing access codes during the class and demonstrating installation of an app. A large number of students did not seek additional assistance from the library, citing they did not have any questions. While that may be because they found the subject guide and/or class sufficiently helpful, a significant number of respondents indicated they were unaware of the subject guide. This suggests a need for further promotion and marketing efforts. Researchers were surprised that nonlibrary licensed apps (ePocrates or Medscape) were valued over resources such as DynaMed, and that the most common barrier cited was not having access to appropriate apps. Finally, almost all of the participants who reported taking a mobile device on a rotation agreed it facilitated access to clinical information and improved the clerkship experience.

24

Addressing Information Management Competency Attainment through Consultations: An Effective and Sustainable Strategy? Δ

Marie T. Ascher, AHIP, Associate Director, User Services, Health Sciences Library; **Penny Liberatos,** Assistant Professor and Director, Department of Epidemiology and Community Health; New York Medical College–Valhalla

Objectives: To study the application of local information management competencies in the context of a research methods class in the university's behavioral sciences program. We sought to measure competencies, address them through targeted individualized consultative instructional sessions, and evaluate improvement of skills as well as the sustainability of this level of concentrated individualized service.
Methods: This is a collaboration of a librarian seeking to address student information management competencies and an instructor teaching a graduate course in research methods. Study participants were twenty-five students taking the course during fall 2011. Using competencies previously developed by the library, the authors developed a sixteen-item questionnaire inquiring about the students' prior experience, their self-ratings of eighteen skills, and a knowledge test. This was pretested with twenty first-year students and modified accordingly. Students were required to complete the questionnaire and have at least one librarian consultation. The student responses and identified needs were then used to guide the consultation. Information was collected about: consultation content, duration, and number per student. A similar questionnaire will be completed at the end of the course, along with student grades and demonstration of the competencies through coursework.
Results: Students in the research methods class were required to submit a pre- and post-survey. The post-survey utilized a post-test retrospective pre-test methodology that asked them to self-assess their current competencies and where they believe they were at the beginning of the semester. Using this methodology, students indicated an improvement across every competency indicator. In addition, the students were asked to indicate how helpful it was to

have the availability of the librarian and the information management consultation, and in every area, the students indicated that it was "very helpful" to at least "a little helpful" to have the librarian involved in the curriculum of this course.
Conclusions: The librarian will continue to provide individual information management consultations with students in the research methods class. While it takes a considerable amount of time and scheduling can be difficult, this type of activity with the students is directly in line with library strategic initiative to improve the information management competencies of the populations we serve.

28

All But the Search: Supporting Systematic Reviews without Performing the Literature Search

Debra A. Werner, Biomedical Reference Librarian, John Crerar Library, University of Chicago, Chicago, IL

Objectives: This poster describes roles for librarians to support systematic reviews, other than conducting very time-intensive literature searches.
Methods: A librarian at an academic health center consulted on a series of systematic reviews regarding health care disparities undertaken by teams of physicians and other researchers as part of a philanthropic organization's national program for improving health care. In the consulting role, the librarian provided a number of services other than doing the search itself, including recommending databases to include in the search, providing instruction on advanced databases searching techniques including Medical Subject Headings (MeSH), and meeting with each team to discuss their search strategies and difficulties they were encountering.
Results: In supporting the systematic reviews, expectations needed to be set regarding the scope of the consultation. When assistance was provided on a particular aspect of a more complex search strategy, the research team was informed that careful attention must be given to how that aspect of the search, when combined with the rest of the search, affects the results. The librarian took notes on discussions of MeSH terms, but questions from the research teams came months later, and at times, more detailed notes would have been advantageous. The five systemic reviews were all accepted for publication, and the librarian authored a technical appendix on a specific aspect of the search strategies.
Conclusions: Roles exist for librarians to support systematic reviews that are less time-intensive than performing the literature search. These roles include recommending databases and other information sources, providing training on database search techniques, offering guidance on recording search strategies, advising on selecting and using citation management tools, and providing advice on aspects of the search strategy.

32

An Assessment of E-Document Retrieval Services in Turkey's Medical Libraries Δ

Güssün Güneş, Assistant Professor, Information and Records Management, Marmara University, Kadıköy, İstanbul, Turkey;
Huriye Colaklar, Head Librarian, Faculty of Dentistry Library, Istanbul University, Istanbul, Turkey

Objectives: The objective of the present study has been to obtain information on electronic retrieval services in medical libraries, a practice that has a direct impact on the quality of clinical and scientific research in Turkey.
Methods: The study is a subject-based statistical analysis of e-journal types and article request figures for e-document retrieval services over the period 2006–2011 at two libraries in Istanbul that serve the nursing and dentistry schools of two universities.
Results: This study analyzed 256 article requests from the Istanbul University Faculty of Dentistry Library and 105 from the Koç University School of Nursing Library. The articles were obtained from ULAKBİM TÜBESS. According to the data collected on e-document retrieval services, 71% of the e-documents provided from both libraries were in the field of dentistry and 29% in the field of nursing. An analysis of the subjects for which article requests were made showed that the majority of the articles were requested in the field of dentistry (190), and the other larger groups of requests were in psychiatry (34), nursing (30), the practice of medicine (27), and medicine (14). The largest number of requests for e-document retrieval from the dentistry library was recorded in 2009 and 2010. In the nursing library, an electronic information retrieval service was used in the years 2006 and 2008.
Conclusions: Information and documents obtained from medical libraries must be quality that answers the medical needs of individuals, containing updated, accurate, meaningful, and quickly accessible information, as well as new data on the latest developments in medicine and new diagnosis and treatment methods. Medical libraries provide their users with access to scientific information through the use of electronic resources, particularly electronic databases and electronic articles.

35

PubMed Indexing and the "Osteopathic Physician" Δ

Jenny Pierce, Public Services Librarian, Health Sciences Library, University of Medicine and Dentistry of New Jersey–Stratford

Objectives: In 2009, "Osteopathic Physician" was added to the list of Medical Subject Headings (MeSH) indexing terms. This research will attempt to answer the question, does the term "Osteopathic Physician" describe only articles on osteopathic education or is it used to describe the entirety of the experience of being an osteopath? How does it compare to the previously used term, "Osteopathic Medicine?"
Methods: A PubMed search will be run using the terms "Osteopathic Physician" OR "Osteopathic Medicine" for the years 2009–2012. A second search will be run using "Osteopathic Physician" OR "Osteopathic Medicine" AND the subheading "Education" OR "Education, Medical, Graduate" OR "Education, Medical" for the years 2009–2012. These two searches will be compared for overlap. It is expected that articles that do not overlap will be articles on the experience of being an osteopath. The full text of articles will be retrieved and reviewed by the author. Articles will be compared by content. All indexing terms for each article will be listed. Commonalities beyond the searched terms will be explored.
Results: In January 2013, 147 articles were found that do not overlap. This means the articles are indexed with "Osteopathic Physician" OR "Osteopathic Medicine" but not the subheading "education" OR "Education, Medical, Graduate" OR "Education, Medical." All 147 are indexed in MEDLINE. Almost all are in English. 5 are indexed as clinical trials, there is 1 guideline, and 11 are indexed as historical. There are 10 reviews, of which 8 are classified as "Systematic" by PubMed filters. Out of the 147 articles, 61 use "Osteopathic Physician" exclusively without any education headings or subheadings. As expected, most articles are from the *Journal of the American Osteopathic Association (JAOA).* Forty-seven articles are published in journals other than *JAOA;* 142 are available online, 94 are available for free. The

largest percentages of citations are to letters (47) and comments (26).
Conclusion: The resulting articles were an interesting mix of history, opinion, and clinical studies. While most of the articles that indexed with "osteopathic physician" are about the experience of being an osteopathic medical doctor (DO), not all the articles were by DOs. A point/counterpoint from academic medicine was written by medical doctors. Educational goals were sometimes included, even if the educational headings mentioned above were included, which indicates a problem in the search strategy. In the review of results, there were several themes that were mentioned repeatedly: US government and allopathic practitioner discrimination against DOs, lack of recognition by general public, and what makes osteopathic distinctive. The last carried the most weight. What does make a DO unique? Some of these articles attempt to answer that question.

36

Analysis of Consumer Health Questions for Development of Question-Answering Technology Δ

Jessi Van Der Volgen, NLM Associate Fellow, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City; **Bethany R. Harris,** Research Librarian, Health Sciences, UCI Libraries, University of California–Irvine; **Dina Demner-Fushman,** Scientist, Lister Hill National Center for Biomedical Communications, National Library of Medicine, Bethesda, MD
Objectives: To develop a computer system to answer consumer health questions by applying modern techniques in natural language processing and information retrieval. As a first-line reference system, the application will partially automate responses to users by searching and retrieving relevant documents from reliable, freely available consumer health information resources that are regularly reviewed and updated by library staff. The purpose of this project was to analyze the types of questions consumers submit to the National Library of Medicine (NLM), determine if the answers to the questions could be found in NLM resources, and create a taxonomy and annotation guidelines for consumer health questions for a machine-learning task.
Methods: A sample set of over 11,000 reference questions received by NLM customer service was examined, and a subset of questions that could potentially be answered automatically was identified. We aligned questions with potential answer sources. Questions related to genetic conditions were initially determined to be the best candidates for automatic answering. A taxonomy of question types and indicators was created in a iterative process.
Results: A taxonomy and annotation guidelines for consumer health questions containing named diseases were created. The final schema notes the general type of question, as well as extraneous information and relevant misspellings. It annotates distinct entities, such as medical problems and genes, as well as words that indicate a particular clinical concept question type, such as prevention, symptoms, prognosis, or treatment. The guidelines were successfully used to annotate a set of twenty questions with good inter-annotator agreement among four annotators.
Conclusions: Consumer health questions are challenging to answer automatically because the questions may be complex, be vague, or contain misspellings, and it is difficult to understand the motivation for the question. The taxonomy and guidelines created in this project can be used for a machine learning task on questions containing named diseases and, with some modifications, may accommodate additional question types.

40

Assessing Patron and Librarian Needs to Design Effective Instruction Δ

Amy Honisett, AHIP, Education Librarian; **Jeanne Marie LeBer, AHIP,** Associate Director, Education and Research; **Nancy T. Lombardo, AHIP,** Associate Director, Information Technology; Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City
Objectives: To assess patron instructional needs in order to design effective models for delivering course content reflecting patron learning preferences. As librarians are integral in designing and implementing these new delivery models for content, this study includes an assessment of instructional design and technology skills. Gaps in instructor knowledge and skills will be identified and addressed.
Methods: Using attendance records, as well as identifying anecdotal trends at neighboring academic libraries, this study will confirm or refute the perception that participation and interest in face-to-face workshops is declining. In addition, a survey of patron preferences will be conducted, along with an informal appraisal of librarian and staff instructional design expertise. This assessment will inform the decision to change the library's instructional model and determine if this shift is in line with the educational mission of the library.
Results: Evaluation of workshop attendance records from 2005–2012 shows that the number of students attending drop-in workshops has declined considerably, as has the number of drop-in workshops offered by the library. Anecdotal evidence from education librarians at neighboring libraries shows that other libraries are experiencing similar educational trends. However, the survey conducted to assess patron instructional preferences illustrates that most respondents would prefer in person, prescheduled workshops, followed by in-person consultations.
Conclusions: The study shows that attendance in drop-in workshops is declining, but patrons still desire in-person instruction. To accommodate the reality of declining participation in drop-in workshops, as well as patron instructional preferences, efforts should be concentrated on delivering in person consultations and determining what subjects patrons will come to the library to learn.

44

Beyond Google and Wikipedia: Helping Health Sciences Students Achieve Information Literacy

Susan J. Arnold, AHIP, Director; **Virginia F. Desouky,** Education Coordinator and Reference Librarian; **Grace Gmeindl,** Outreach Liaison Librarian; Health Sciences Library, West Virginia University–Morgantown
Objectives: As part of our library system's information literacy (IL) course enhancement grant program, three health sciences librarians were selected to work with teaching faculty in the fields of nursing, exercise physiology, and nutrition to incorporate IL principles into the curriculum for specific classes with a scientific writing or research component.
Methods: Health sciences librarian liaisons were teamed with teaching faculty to design discipline-specific lessons that addressed critical research components through active learning. Different methods were used depending on the class. Because the nursing class was offered through distance education, online tutorials and message boards were featured. The other courses used designated computer lab time with the librarian, LibGuides, and class sessions on plagiarism, how to search for and evaluate

information, and how to manage bibliographic citations to help reinforce principles of information literacy. A variety of evaluation methods have been utilized with the IL-integrated classes, including pre- and post-surveys, one-minute reflections that could be submitted online via a LibGuide, and written feedback from students. The faculty and librarians have used these student comments to refine and improve course content over the last several semesters.

Results: A total of 624 students have had the benefit of course-integrated IL instruction. Through course evaluations and feedback, the top 3 things that students say that they learn from the presentations are: which databases to use to effectively search for information on their topics, how to use limits and filters to narrow search results and make them more relevant, and how to use RefWorks to organize citations and format papers/bibliographies. Two class sessions in a computer lab appear to work best for teaching: one to cover databases and searching techniques, and one to cover RefWorks and answer questions from the previous session.

Conclusions: The vast majority of the students (>90%) have identified that the IL components of the classes have helped them to be successful in their coursework and to improve their research skills, and our belief is that these skills will continue to be essential to them as they become lifelong learners.

48

Branching the Medical Library to Improve Consumer Health Information Services to the Public Δ

Tony Nguyen, Health Sciences Librarian; **Stevo Roksandic,** Library Director; Mount Carmel Health Sciences Library, Mount Carmel Health System, Columbus, OH

Objectives: This poster examines the process in which a medical library developed a consumer health library to provide health information services to the local urban community. We describe the planning and collaborative partnerships with national, state, and local organizations that were developed to promote health information.

Methods: An academic health sciences library currently serves the academic and medical research needs of a nursing college and 4 urban community hospitals. The health sciences library proposed to provide support services and educational resources necessary to positively impact health and wellness in the surrounding community. The targeted community includes a population identified as being 42% are age of 65 and older and 52% of the families are single-parent homes. Additionally, the community has a 24% minority population, 35% are uninsured, and 11% are unemployed. A community analysis was completed along with surveys and interviews. Data were accumulated to determine the needed library staff training, top health resource needs for the community, and educational opportunities necessary to impact the community. Partnerships were determined and developed to help build on outreach services and further promote health information to the community.

52

Building an Institutional Repository to House Email and Other Gray Literature: Collaborating with Regional Partners

Mary Beth Schell, Director, North Carolina Area Health Education Center Digital Library; **Lauren Tomola,** Student Assistant; Health Sciences Library, University of North Carolina–Chapel Hill

Objectives: Our state's Regional Extension Center (REC) consultants are creating much of their project documentation by sharing information through email. They often need to go back and consult past email discussion threads and are having difficulties accessing older emails. To address this problem, librarians worked with the REC consultants to create a searchable, browsable archive of project documentation.

Methods: RECs are federally funded programs tasked with working with primary care practices to implement electronic health records to a meaningful use. This institutional repository will make ephemeral content permanent and useful. We believe that the skills learned in this project will be applicable to other projects with similar email and documentation issues. This will be achieved through the following tasks:

- to create a permanent home for emails and other gray literature pertaining to the work of the REC consultants
- to organize the REC email archives into browsable meaningful categories
- to develop a tagging vocabulary based on the content of past emails
- to assign tags and other metadata that facilitate resource discovery
- to train REC consultants to use the repository
- to work with REC consultants to develop a plan to keep project documentation current and accessible going forward

Results: The wiki space currently contains 6 main organizational categories. There are currently 493 unique tags, which have been applied a total of 9467 times. An exact count of emails that have been reformatted and uploaded into the wiki is difficult to ascertain because in the process many email threads are consolidated into 1 wiki document. Estimates indicate that approximately 2,000 emails have been consolidated into 563 wiki pages. There has not been a formal evaluation conducted.

Conclusions: By most measures, this was a successful project. The biggest challenges stemming from the project are moving the target user group toward tagging and formatting their own wiki documents. It has also been challenging to switch people from using email to directly utilizing their project wiki space. Otherwise, most of the projects goals were attained, and the target audience was so pleased with the results that they are providing more funds for the library to continue its help. This project has illustrated a newly emerging role for librarians in the area of organizational knowledge management. We believe that the fundamentals of this project could be applied to a variety of organizations and projects.

56

Clinical Rounding in the Neuro/Trauma Intensive Care Units: One Librarian's Experience

Gretchen Kuntz, Director, Borland Health Sciences Library, University of Florida–Jacksonville

Objectives: To describe the implementation of clinical librarian services and participation in rounding on the neuro/trauma intensive care units (ICUs) at a level one trauma center.

Methods: The position of clinical librarian was introduced at our campus in the spring of 2011. While existing staff previously supported clinical information and training, the need for a dedicated position had been identified as one of critical value. The medical director of the multi-specialty critical care service had participated in the search process and indicated her desire to utilize the clinical librarian service as soon as available. Discussions between the clinical librarian and medical director resulted in the attendance of the clinical librarian on rounds in the neuro/trauma

ICUs when the medical director was on service and coordination of schedules allowed. Each rounding experience in the ensuing year resulted in four to six clinical questions. Time spent on rounds, time for search completion, and types of questions were tracked and recorded.
Results: Anecdotal reports indicate positive impact upon patient care and changes in patient care decisions. Other ensuing benefits include requests from other attending physicians for clinical librarian participation on their rounds and an increase in consultation requests from clinical faculty and staff.
Conclusions: Future plans are to embed the clinical librarian on the neuro/trauma ICUs at least two days a week for three to four hours per day in order to be available to all services in the units.

60

Comparing Curriculum-Based Textbooks with Library Holdings

Adrianne Leonardelli, Research and Education Librarian; **Brandi Tuttle, AHIP,** Research and Education Librarian; **Leila Ledbetter,** Research and Education Services Librarian; **Karen S. Grigg, AHIP,** Associate Director, Collection Services; **Elizabeth Berney,** Service Desk Manager; **Barbara Dietsch,** Acquisitions and Cataloging Manager; Medical Center Library & Archives, Duke University, Durham, NC

Objectives: Duke University's library holdings were compared to textbooks required or recommended by our nursing, physician assistant, and physical therapy programs. Compiled data were used to identify gaps in the collection, determine e-book versus print book usage, and help better meet the information needs of these constituents.
Methods: Three of Duke Medical Center Library's primary user groups—the schools of nursing (SON), physician assistant (PA), and physical therapy (PT)—require or recommend their students to have specific textbooks. SON, PA, and PT library liaisons compared these textbooks to the library's print and e-book holdings. The liaisons then compiled a list of the library's available titles for their respective schools and shared it with faculty. If a required or recommended textbook was in the library's collection, circulation, and/or usage statistics were determined and analyzed. If a title was absent from the library's collection, comparable e-book holdings were identified and shared with faculty in order to promote available library resources. Data gathered were also used to identify gaps in the library's collection and justify purchase recommendations.
Results: The results are not yet complete and will be presented at the meeting.
Conclusions: Conclusions will be presented at the meeting.

64

Conscientious Objection in the Healing Professions: A Readers' Guide to the Ethical and Social Issues

Jere Odell, Scholarly Communications Librarian, University Library, Indiana University-Purdue–Indianapolis; **Rahul Dilip Abhyankar,** Student, School of Medicine; **Amber Malcolm,** Student, Public Health; Indiana University–Indianapolis; **Avril N. Rua,** Graduate Assistant, Indiana University Center for Bioethics, Indiana University-Purdue University–Indianapolis

Objectives: To describe a newly developed information resource to assist libraries serving patrons with questions about refusals of conscience in the healing professions.
Methods: Health care professionals in most of the United States as well as in a number of European, Latin American, African, and Middle Eastern countries have legislation regarding the refusal to provide services when and if the care would conflict with their personal moral principles. Although this controversial practice is often associated with reproductive medicine, health professionals and care givers express rights of conscience regarding end of life, vaccination, emergency intervention, and other services. While advocates on both sides provide information, few guides are freely available to those seeking a deeper understanding of the issues. This poster will: (1) describe a collaboration between a medical librarian and the Indiana University (IU) Conscience Project, (2) outline the subject of conscientious objection in the healing professions, and (3) introduce a new readers' guide on the topic.
Results: In 2001, a group of medical education professionals working on moral development, child psychiatry, and medical ethics issues established the IU Conscience Project. As part of the project, a website and digital library were created to provide access to materials for readers with an interest in how the conscience relates to medicine. An outcome of this work includes this guide to conscientious objection in the healing professions. Academic publications on conscientious objection peak when the topic is the subject of media reports, court cases, and developing legislation. Current discussions focus on how the Patient Protection and Affordable Care Act will affect institutions with religious affiliations (especially Catholic hospitals) insurance coverage for contraception. Organizations and professionals need to consider how to resolve conflicts around issues of conscience before they arise. This guide identifies resources to help anyone (professionals, patients, students, and readers) with an interest in the subject.
Conclusion: Conscientious objections in the healing professions often involve conflicts between professional and moral values. Readers need easy, open access to a range of materials on the topic to make informed decisions about issues of conscience.

68

Core Literature in Allied Health Δ

Robert M. Britton, AHIP, Electronic Resources and Collection Development Librarian; **Judy Burnham, AHIP,** Director; **Jie Li, AHIP,** Assistance Director, Collection Management; Charles M. Baugh Biomedical Library, University of South Alabama–Mobile

Objectives: The purpose of this study was to develop an up-to-date, authoritative list of allied health journals for both collection management purposes as well as for identification of publication opportunities for faculty.
Methods: For individual allied health disciplines, core published lists have been analyzed and journal ranking metrics have been examined. The core published lists included the Brandon/Hill List, the MLA master guide list, and the previous mapping studies developed by the MLA Nursing and Allied Health Resources Section. The journal ranking metrics included Journal Citation Report's impact factor, the Eigenfactor article influence score, the 2011 Scopus journal rank, and the source-normalized impact per paper (SNIP) metric.
Results: The core published lists were effective in initial identification of critical titles for the specialties. The journal ranking metrics identified provided a more objective and reliable method for journal selection.
Conclusions: The analysis revealed a list of important journals for each discipline in the allied health field. The list will be beneficial to libraries in identifying critical titles in their collection management efforts, as well as for faculty seeking journals in which to publish in their particular allied health discipline.

72

Creating a Taxonomy for a Medical School Curriculum

Abraham Wheeler, AHIP, Health Sciences Librarian, Health Sciences Group, Michigan State University–East Lansing

Objectives: A large university college of medicine is undergoing a complete revision of their medical school curriculum. One major concern with the curriculum revision was tracking educational objectives and then reporting these outcomes to the schools' accrediting body. The libraries collaborated with the college to meet the challenge of developing a system for tracking and reporting the curriculum objectives.

Methods: The librarian liaison to the college was involved in the project from the beginning. First, he worked with the medical school to show the necessity for creating a taxonomy for the educational goals and objectives that needed to be tracked and reported. Next, he served on the committee that was tasked with licensing curriculum management software. He evaluated potential software based on its ability to create, tag, and manage content using taxonomy. Once software was selected, the librarian worked with faculty and medical school administration to create a taxonomy that represented what was being taught and captured what was needed to report to accrediting bodies. Additional planning was done to make the taxonomy integrate into the medical schools' virtual patient panel. The National Library of Medicine's Medical Subject Headings (MeSH) vocabulary forms the backbone of the new system.

80

Development of an Automated Electronic Table of Contents Current Awareness Service Using Really Simple Syndication (RSS) Feeds and the Library Blog

Marie T. Ascher, AHIP, Associate Director, User Services; **Mohammed Mohiuddin,** Administrator, Network and Systems; **Deborah A. Crooke, AHIP,** User Services Librarian; **Haldor Heimer,** Serials and Systems Librarian; Health Sciences Library, New York Medical College–Valhalla

Objectives: To develop a fully automated electronic journal table of contents (e-TOC) current awareness service for our users.

Methods: Researchers regularly receive e-TOC alerts in their email and less frequently via other means such as really simple syndication (RSS) feeds and news readers. Several researchers have regularly come to the library to browse the daily journals receipts. The e-TOCs committee embraced the metaphor of the new journals shelf to develop a fully automated e-TOCs system that would push content from journal RSS feeds to a "New Journal TOCs" shelf or posting on the library's blog. Our research indicates that most libraries offer minimal alert services, directing users to set up individual publisher feeds. This approach is novel. Daily alerts automatically publish to the blog and web page from the established RSS feed without library staff intervention after initial setup.

Results: In September 2012, the health sciences library submitted a proposal and was awarded a technology grant from the National Network of Libraries of Medicine (NN/LM), Middle Atlantic Region. One of the purchases this grant will enable is the product JournalTOCs, which will assist us in carrying out this project.

Conclusions: This poster describes the mechanism as well as an evaluation of the success of the project and will provide an overview and evaluation of a customized JournalTOCs implementation.

84

Diagnostic Error and Patient Safety: Librarian Decision Making as Part of the Solution Δ

Elaine Alligood, Informationista and Chief, Library Service, Knowledge, Information, and Library Services, VA Boston Health Care System, Boston, MA; **Barbara Jones,** Missouri Library Advocacy Liaison, J. Otto Lottes Health Sciences Library, University of Missouri–Columbia; **Linda C. Williams,** Director, Patient Safety Fellowship Site, VA National Center for Patient Safety, Ann Arbor, MI; **Lorri Zipperer,** Cybrarian, Zipperer Project Management, Albuquerque, NM

Objectives: Examination of diagnostic error (DxEr) and patient safety (PS) requires decision analysis to assess flaws and identify decision process improvement points. Yet, few studies in medical library literature discuss the librarian's own decision-making processes, information failures, or role in DxEr and PS.

Methods: Health professionals concerned with the need for evidence, information, and knowledge (EIK) in the diagnostic process, explored decision-making processes in contrast to baseball umpires and physicians (Graber, M. AHRQ) by the creation of a table/poster identifying the potential decision issues. This project goes a further step by incorporating librarians' decision making into the table and examining the potential errors, failure points, causal factors, biases, and preventive strategies. Librarians will be surveyed on their decision-making processes and actions, and followed-up by an opportunity to contribute to the further development of a new broader, regularly updated table targeted at both librarians and clinicians. Copies of this table plus the survey link will be issued as part of this meeting poster presentation; encouraging a collaborative crowd sourcing approach to building better information decision making tools amongst librarians.

Results: Analysis of concepts will be in table format.

92

Evidence-Based Medicine (EBM) in the Clinical Practice Examination (CPX): EBM as a Standardized Patient

Connie Schardt, AHIP, FMLA, Associate Director, Research and Education Services, Medical Center Library & Archives, Duke University, Durham, NC

Objectives: To integrate the teaching and graded assessment of evidence-based medicine (EBM) searching and critical appraisal skills in the medical school curriculum through the clinical practice examination (CPX).

Methods: Librarians teach PubMed and EBM throughout the medical school curriculum; however, student work is rarely graded to assess these skills. To address this, librarians worked with the general medicine clerkship director to create an EBM station within CPX, which traditionally includes standardized patients as a means to test physical examination and diagnostic reasoning. Before test day, librarians teach a session on EBM and critical appraisal. Students are then sent an assignment with a patient case and are asked to create a patient/problem, intervention, comparison, outcome (PICO) question; conduct a search; appraise a preselected article for validity; and calculate the absolute risk reduction and number-needed-to-treat. On CPX day, students rotate through standardized patients and the EBM station. In the EBM station, students present their work to librarians, who assess their searching and EBM skills, as well as provide feedback on critical appraisal concepts and information management.

Results: This is a description of our project. There are no results to report.

Conclusions: This is a description of our project. Conclusions will be published on the poster.

95

South Africa One Year Later: Follow-up and Outcomes from Outreach and Partnerships

Martha F. Earl, AHIP, Assistant Director; **Cynthia J. Vaughn, AHIP,** Clinical Information Librarian and Associate Professor; Preston Medical Library, University of Tennessee–Knoxville; **Mark Dobson,** Director, Pretoria Information Resource Center, United States Embassy, Pretoria, South Africa; **Naomi Haasbroek,** President, Library Association of South Africa, Cape Town, South Africa; **Steve Kerchoff,** Information Resource Officer, US Department of State, Pretoria, South Africa

Objectives: After Tennessee librarians taught consumer health classes for public library staff in South Africa, project organizers set follow-up goals. South African librarians would purchase recommended consumer health books for designated libraries, increase advocacy efforts for public library funding, and enable interested staff to teach additional classes. Tennessee librarians would provide consultation, publications, a follow-up survey, and local HIV/AIDS support outreach.

Methods: To measure success in meeting goals, librarians counted the number of books ordered, the number of libraries receiving them, and the amount spent and recorded the locations receiving the items. To record advocacy efforts, librarians noted correspondence with South African leaders, advocacy events attended, and related association publications. Librarians measured success in locating instructors by the number of instructors, students, classes, topics, and locations. Tennessee librarians recorded consultations interchanged; publications about the project; and numbers of outreach sessions to HIV/AIDS support groups, participants attending, and consequent information requests related to HIV/AIDS issues. Librarians sent follow-up surveys to South African libraries involved to determine changes in staff use of consumer health resources and services.

Results: The US Embassy Information Resource Center (IRC) director corresponded with the Tennessee librarians for a list of core recommended health titles for public libraries. Copies were provided to libraries who had participated in classes and who had a US Embassy-funded "American Corner." In terms of advocacy, US Embassy librarians sought volunteers to teach the classes in South Africa. Public librarians reported that they did not feel confident in teaching the classes and asked that medical librarians provide further training and consultation. Embassy and Library and Information Association of South Africa (LIASA) librarians investigated the possibility of hosting a three-day workshop to train South African medical librarians to teach public library staff and others. Tennessee librarians presented on their experiences at local meetings and published in newsletters. They contacted two HIV/AIDS support organizations in their city and planned train-the-trainer workshops. Tennessee librarians answered inquiries from South African class participants, Embassy, and LIASA contacts. South African public librarians continued to demonstrate interest in learning more about health information.

Conclusions: Tennessee and South African project organizers continued to follow up in promoting consumer health information resources for public library staff. They supplied materials, advocated for public library funding, and provided for train-the-trainer classes. Instructors provided consultation, published on the project, and reached out to HIV/AIDS consumer groups. Additional follow-up is needed to strengthen project continuity in South Africa.

96

E-Learning Tools: Developing from the User's Perspective

Laura Bartlett, Technical Information Specialist, Outreach and Special Populations Branch; **Stephanie Publicker,** Office of Clinical Toxicology; National Library of Medicine, National Institutes of Health, Bethesda, MD; **Siobhan Champ-Blackwell,** Health Sciences Librarian, Business Unit 4, Aquilent, Bethesda, MD; **Nicole Dancy,** Outreach and Special Populations Branch; **Gale A. Dutcher, AHIP,** Deputy Associate Director, Specialized Information Services; **Shannon Jordan,** Division of Specialized Information Services; **Janice E. Kelly**, Chief, Outreach and Special Populations; **Elizabeth F. Norton,** Librarian, Disaster Information Management Research Center; **Jamie Peacock,** Outreach Librarian; **Andrew Plumer,** Outreach Librarian, Specialized Information Services; National Library of Medicine, National Institutes of Health, Bethesda, MD

Objectives: Being a large national organization that also offers resources to internal audiences, we have focused our e-learning tools to be resources centric and not cater to the diverse user populations who access our resources. To better serve our user audiences, we embarked on a division-wide exploration of training, user needs, technology, and how to best serve our diverse audiences.

Methods: Our exploration focused on several areas: exploring the technology available in e-learning, such as webinars, self-paced instruction, and synchronous or asynchronous web classrooms across different software platforms; user needs assessment methodology; and matching of user needs to technology. We also spent time exploring the professional competencies of our user audiences and how we can best match those to our resources. In turn, we explored the continuing education (CE) requirements of our user audiences in order to explore the possibility of adding professional CE credits to our e-learning resources.

100

ET: Evidence Tablets for Medicine Faculty Δ

Sherry Dodson, Clinical Librarian; **Ann Whitney Gleason,** Head, Systems; Health Sciences Library, University of Washington–Seattle

Objectives: This project will assess whether a tablet computer-based mobilized website can effectively improve the use and teaching of evidence-based medicine (EBM) by department of medicine faculty attending physicians on inpatient ward teaching services at two academic medical centers.at the University of Washington Medical Center (UWMC). The project will also test the logistics of use of the tablet computers by attending physicians for patient care and teaching the EBM process to their team members. Part of a larger on-going project evaluating the use of tablet computers by medicine faculty, this project was funded by a grant from the National Network of Libraries of Medicine (NN/LM) Pacific Northwest Region (PNR).

Methods: The website content (curriculum, forms, and suggestions for teaching and practicing EBM will emphasize the four steps to practice EBM. These tools will be tested with pre- and post-tests at an academic medical center where attending physicians will be invited to use the tablet computers. The results will be compared to a group of attending physicians at a second academic medical center who are not using tablets. Outcomes assessed will be the acceptability of the tablets; and the effectiveness of the mobilized curriculum in improving the confidence, practice and teaching of EBM by faculty attending physicians. Assessments will be done using pre- and post-tests as well as

focus groups. Many clinical apps were evaluated and the best selected for use in the project.
Results: A pilot program was completed late Fall 2012 with a small number of attending physicians. We found that the smaller iPad mini was preferred over the larger model due to ease of carrying the tablet. Logistical issues that were solved included selecting the best iPad size, cover and keyboard, arrangement of apps into appropriate folders and the ability to attach the tablet to a projector for teaching medicine teams. A beta website was created with EBM teaching materials and pre- and post-tests have been developed. We found that the categories of apps that we most likely to be game-changers for attending physician use were patient education and teaching apps.
Conclusions: All of these logistical concerns were crucial to address before beginning the full one-year pilot project at the University of Washington Medical Center once internal review board (IRB) approval is obtained in spring 2013.

104

Evidence-Based Practice for Medical Students in a Family Medicine Clerkship: Collaborative, Active Learning for Clinical Decision Skills

Tagalie Heister, Clinical Medical Librarian; **Frank Davis, AHIP,** Research and Education Librarian; **Rick Brewer,** Assistant Director, Research and Education; Medical Center Library; **Archana Kudrimoti,** Director, Family Medicine Clerkship; **Janice Kuperstein,** Co-Director, Family Medicine Clerkship, Rehabilitation Sciences; **Shari Levy,** Program Coordinator, Family Medicine Clerkship, Family and Community Medicine; University of Kentucky–Lexington

Objectives: This active learning experience was designed to enhance the information literacy knowledge and skills of medical students for patient-centered, evidence-based decisions at the point of care. It includes formulating clinical questions using patient/problem, intervention, comparison, outcome (PICO), accessing the highest level of evidence-based medicine (EBM) information available in an effective manner, and evaluating the information in relation to a specific patient in an outpatient setting.
Methods: Third-year medical students participate in a small-group collaborative, patient-centered learning experience during the family medicine clerkship, coordinated by the clerkship directors with participation by two medical librarians. At orientation, the clerkship directors provide the students with an overview of the evidence-based process and creating PICO questions. Librarians then direct a hands-on instruction session covering evidence-based resources and search strategies for finding point-of-care EBM information. Students select a clinical question from a patient encounter in their outpatient clinics. Each student submits a worksheet providing the PICO question, resources consulted, search strategy, selected bibliographic references, and clinical recommendations for their patient. Librarians provide a written assessment and suggestions for improvement relative to the students' search strategies and resource selections. Students then present their patient clinical question, research, and recommendations to the clinical faculty and student group.
Results: In the most recent 6 months of this course, 85% of the 55 students participating were rated as "competent" in the areas of resource selection and literature searching on their EBM assignment. Pre- and post-tests results indicate that a majority of the students had an increased familiarity with and appreciation of key evidence-based medicine resources such as Cochrane Reviews, ACP PIER, and FPIN after completing the EBM assignment. Student evaluations reflect increased interest and value in EBM through this experience.
Conclusion: Providing an active learning, patient-centered experience with collaboration between clinical faculty and medical librarians has been successful in improving third-year medical student knowledge and skills in medical information literacy for clinical decision making. The project has also provided useful data for ongoing discussions with the college of medicine regarding increasing the longitudinal role of the library throughout the curriculum.

108

Express Digitization and Conservation Award: Accomplishments, Lessons, and Future

Lisa D. Travis, AHIP, Medical Librarian, Dr. Lon and Elizabeth Parr Reed Health Sciences Library; **Michelle Ganz,** University Archivist and Special Collections Librarian, Carnegie-Vincent Library University Archives; Lincoln Memorial University, Harrogate, TN

Objectives: Future funding was received to accomplish two goals, digitize a collection of slides and provides access to materials related to the institution's early twentieth century medical school. The institution will publicize the collections and evaluate usage once the slides are posted online. The institution will file quarterly reports, a final report, and detail lessons learned and future plans.
Methods: This project has been funded in whole or in part with federal funds from the National Library of Medicine, National Institutes of Health, Department of Health and Human Services, under contract with a Regional Medical Library (RML). Funding from this award will be used toward digitization of two collections of value to researchers within and outside of the institution. The first collection consists of approximately 12,000 slides in 274 non-archival binders that were donated to the library in June 2011 by a dean emeritus of a school of dentistry; the collection consists of pathology, dermatology, and other images that are not limited to oral diseases and conditions. The second collection consists of materials related to the institution's first medical school, which existed briefly in the early 20th century.
Goals: During the one-year grant period, the following digitization tasks will be completed. Staff will digitize the materials for the early twentieth century medical school and post them within a website; dispose of slides that do not protect a subject's anonymity; scan at least 6,000 of the slides; and place the slides in archival storage boxes.
Results: The institution has disposed of slides that did not project the subject's anonymity and has scanned over 8,200 slides and is working to find a place to post them online; permission to post them in an online consortial repository was recently recanted. The institution will make plans for proceeding with the project beyond the funded year. The poster will discuss the project's accomplishments, the lessons learned, and the future plans.

112

First-Year Medical Student E-Book Survey Δ

Kristen Burgess, Information Services Librarian, Donald C. Harrison Health Sciences Library; **Leslie Schick,** Associate Dean, Library Services, and Director, Health Sciences Library; University of Cincinnati, Cincinnati, OH

Objectives: The library surveyed all first-year medical students about electronic books (e-books) purchased for the first-year curriculum and conducted a usage analysis. The purpose was to determine the extent to which students use e-book versions if re-

quired for the curriculum or if they continue to use print versions, and to analyze e-book usability, ease of use, and overall student satisfaction.
Methods: The survey was distributed to a selective sample (n=175) of all first-year students in the college of medicine (COM). The survey had 19 questions and was open for 2 weeks. The survey was entirely anonymous, confidential, and voluntary. The library worked in coordination with the COM administration to create, distribute, and analyze the survey using the COM evaluation system. In addition, the library conducted detailed usage analysis for each e-book specifically purchased for the curriculum and compared usage statistics to the survey results.
Results: The survey had a response rate of 61% with 107 out of 175 students responding. Ninety-six percent of students used an e-book in the past year with 70% agreeing that e-book s benefit their studies and 64% wishing more e-book s were available from the library. The majority of students were satisfied with the library's e-book s subject scope, but only half were satisfied with functionality and ease of use. Overall, 60% of respondents were mostly or very satisfied with e-book s. A gap exists between students' preference between e-book s and print books for their medical learning and there is great variation between students' use of e-book s when reading extensive sections and when reading smaller sections. When students open an e-book, they primarily want to read it from a screen or handheld device, search its full text, print pages or chapters, and copy and paste. If students had their ideal e-book, the majority want to be able to highlight and annotate, print or download PDF versions of content sections, save and share their notes, and copy and paste.
Conclusions: The e-book survey, coupled with an analysis of usage statistics, provides the librarians with the information needed to best support the COM curriculum and student needs. Student responses and usage analysis will directly influence how the library uses its funds in the upcoming fiscal year to support the curriculum. Future e-book surveys are planned and will be expanded to include COM faculty and second-year medical students.

116

Formalizing a Systematic Review Service: Librarian Collaboration in Clinical and Scientific Research

Sarah Safranek, Information Management Librarian; **Leilani A. St. Anna, AHIP,** Information Management Librarian; **Sherry Dodson,** Clinical Librarian; **Janet G. Schnall, AHIP,** Information Management Librarian; Health Sciences Library, University of Washington–Seattle

Objectives: Advances in delineation of best practices for conducting and reporting systematic reviews (SRs), combined with rising standards for scholarly publishing, have resulted in increased demand for librarian involvement in SRs. This poster describes our experience adapting to increased demand by developing a systematic review service, with particular attention to how we are addressing funding for collaborative activities.
Methods: The University of Washington Health Sciences Library (HSL) serves a large, academic medical center and public educational institution, recipient of large amounts of research funding. Existing literature, models, and guidelines will be combined with local experience and context to develop policy, procedures, and tools for librarian participation in SRs. We considered time requirements for various levels of contribution, and fees and/or authorship agreement.
Results: A short survey sent to the Association of Academic Health Sciences Libraries (AAHSL) email discussion list in fall 2012 regarding provision of SR services drew 49 responses; 60% of libraries responding do not have a formal policy guiding provision of SR services. Almost half of those responding do five or fewer SRs per year, and 7 libraries do 20 or more. Rates charged range from $22.50/hour to $40/hour, with between 18–40 hours of time estimated per project. Twenty-nine libraries stated they do not charge for SRs. With one exception, there was no correlation between libraries performing a higher number of SRs, and those who charge for the service, nor was private vs. public status indicative of charging. Twenty-five percent of libraries responding require authorship, versus 25% who do not, but the majority of responders encourage coauthorship, or at least acknowledgement within the review. HSL librarians identified the following tools as helpful in negotiating participation with SR teams: itemized task list describing librarian role; standard fee charged when librarian is involved in entire SR process; tools for discussing search terms and scope; form letters clarifying tasks and timeline agreement; tips on searching, handling results, and writing search methodologies.
Conclusion: We formalized our SR services by creating internal policy, and an external service description, including definition of librarian role. Key elements of our service agreement include requiring co-authorship, and charging when SR projects are supported by grants or other funding. We have created or adapted materials to aid in: negotiation of service levels, forming searchable questions, developing search terms, handling results, and documenting search strategies and methods. These policy, procedures, and service delivery aids are expected to act as a guide for librarians entertaining collaborative systematic review proposals (libguides.hsl.washington.edu/sr).

124

Going Global Here at Home: Librarians Supporting International Health Care

Katherine Downton, Liaison and Outreach Services Librarian; **Emilie Ludeman,** Liaison and Outreach Services Librarian; Health Sciences and Human Services Library, University of Maryland–Baltimore

Objectives: This poster examines the academic liaison librarian role in serving an Office of Global Health (OGH). Librarian support the OGH by assisting international nurses in identifying quality information resources, promoting programs like HINARI, and aiding nursing faculty in locating resources for nurses in developing countries. An underlying goal has been to promote the role of librarians in global health care.
Methods: Academic librarians can impact global access to information, even without going abroad, by developing strong relationships with global health programs on campus. Librarians at the university have worked with and supported the school of nursing's OGH since its establishment in 2009. This involvement has created opportunities to support both international visitors and university faculty who work abroad in developing countries. For the past several years, librarians have provided consultations and instruction for visiting scholars, nurses, and students. This includes training in the use of subscription resources to support research during a scholar's visit and free resources to help visitors working in areas with limited access to information. Librarians also provide support to nursing faculty seeking resources for the work that they do abroad, including help in identifying inexpensive health information sources in other languages.
Challenges/Results: Visiting clinicians and students have demonstrated an interest in resources and learning new skills, visit the library building, and comparing resource availability. However,

limited time is available to use them during their visit to the university. Faculty who work abroad use library resources remotely but can be hindered by slow Internet access and other technological limitations. Language can also present challenges when trying to address information needs of health care workers who do not read English, particularly in English language-dominated disciplines.
Conclusions: Library interaction with international scholars has been a learning experience for librarians, visiting clinicians, and faculty traveling abroad. Balance training in subscription resources with free resources that will be accessible to clinicians in resource-poor environments, emphasizing the importance of knowing the background of the visiting professional or student. If this information is not provided in advance, ask questions in order to better understand the visitor's access to information, the availability of computers and the Internet, and the visitors' experience finding health information. Professionals affiliated with academic and research organizations often have better access to subscription resources than expected in their home countries, sometimes via access to HINARI.

128
Going Mobile: From LibraryAnywhere to Home-Grown Mobile Websites
Yingting Zhang, AHIP, Information and Education Librarian, Robert Wood Johnson Library of the Health Sciences, University of Medicine and Dentistry New Jersey–New Brunswick; **Kevin Block,** Librarian, Health Sciences Library at Stratford, University of Medicine and Dentistry New Jersey–Stratford; **Robert Cupryk,** Information and Education Librarian; **Fengzhi Fan,** Systems Librarian; Robert Wood Johnson Library of the Health Sciences, University of Medicine and Dentistry New Jersey–New Brunswick; **Anna Huang,** User Support Specialist, George F. Smith Library; **Yu-Hung Lin,** Digital Services Managing Librarian, University Libraries; **Teodoro Oblad,** System Administrator, George F. Smith Library; **Janice Rettino,** University Libraries Administration and Systems; University of Medicine and Dentistry New Jersey–Newark; **Betty Swartz,** Librarian, Camden Campus Library, University of Medicine and Dentistry New Jersey–Camden; **Natalie Wadley,** Voyager System and Web Site Coordinator, University Libraries; **Yini Zhu,** Access Services, George F. Smith Library; University of Medicine and Dentistry New Jersey–Newark
Objectives: The poster will illustrate how the university libraries (UL) developed multiple campus mobile sites based on lessons learned during the mobile project.
Methods: Concurrent with the mobile working group exploring and experimenting with the various mobile devices and applications as well as the LibraryAnywhere mobile site enabled via the award, the UL's Campus Wide Information Systems (CWIS) Committee started to develop a home-grown mobile site based on what was learned from these devices, apps, and the externally hosted mobile site.
Results: Each of the four campuses developed its campus library mobile site using jQuery Mobile technology as well as Dreamweaver CS5. The mobile sites have auto detection features regardless of accessing mode. In addition to basic library information, online catalog, news, and ask a librarian, each site also includes a rich collection of mobile resources on various topics as well as Quick Search, an e-resources search tool.
Conclusions: The collaborate efforts of both the Mobile Working Group and the CWIS Committee made it possible for the UL to have a successful mobile project that resulted in the creation of home-grown mobile websites for each campus library.

132
Healthy Teens: An Express Outreach Award Project
Sherrill Olsen, AHIP, Manager, Health Sciences Library, Huntington Hospital, Pasadena, CA
Objectives: The objectives of this project were to: (1) Increase the knowledge and awareness of teen health issues in both teens and adults. (2) Increase the consumer's ease and ability to find information in this area in print and electronic formats, particularly at the local level.
Methods: These objectives were accomplished by developing the Healthy Teens Pasadena (HTP) (huntingtonhospital.libguides.com/htp) website using LibGuides and organizing relevant presentations for parents and teens on topics of their choice. The presentations imparted information and were used to publicize the HTP website. To accomplish this, partnerships were developed with several hospital groups, the local public library, and the local high school system. For example, high school students voted on the topic of their choice, our community outreach group located a speaker and our public relations people helped us create a marketing plan, publicize the events, and create marketing materials. Evaluations and feedback about the presentations were gathered on site by forms. Librarians searched and gathered many site resources. Before going public, student volunteers evaluated and gave suggestions regarding the website via forms. The library continues to follow usage of the HTP website as another evaluation measure.
Results: Two presentations were given to parent groups, one at the public library and one at a high school parent-teacher-student (PTSA) meeting. One presentation was given to a group of high school students. At the presentations, information about the HTP website was made available via marketing materials and a librarian's introductory remarks. Publicity about the presentations and website was widespread: in local news venues and hospital newsletters; postcards distributed throughout the hospital, public library, and high school systems; and give-aways with the HTP website name and URL on them. Feedback has been positive about the programs and the website.
Conclusions: From the feedback received, this project did address a need in the community. One lesson we learned was to mine local resources, before looking farther. By connecting with groups in the hospital on this project, we think the hospital is now more aware of the contributions the library can make to community outreach and will be more likely to approach us to work with them on community projects in the future. We also believe the community is now more aware of the hospital and our library as a resource to consider for health needs and information.

140
How Well Does the VIVO Harvester Populate Bibliographic References for an Institutional Instance of VIVO? Δ
Jonathan Eldredge, AHIP, Associate Professor, Health Sciences Library and Informatics Center; **Philip J. Kroth,** Associate Professor, Biomedical Informatics Research, Training and Scholarship; University of New Mexico–Albuquerque
Objectives: To test the accuracy of the VIVO Harvester in populating an institutional VIVO instance. VIVO is an online directory that provides social networking opportunities for researchers who share similar or complementary research interests.
Methods: Comparison study: The investigators will populate an institutional instance of VIVO with twenty-six randomly selected

researchers stratified first by faculty rank (professor, associate professor, or assistant professor) and then by primary faculty appointment in either a basic or clinical sciences department. The VIVO Harvester will then populate the VIVO instance with these faculty members' peer-reviewed publications from PubMed. The gold standard will be lists of faculty publications as assembled by faculty librarians who will search PubMed and then interview each faculty to ensure the manual PubMed search is accurate. The gold standard will be compared to the lists produced by the VIVO Harvester to determine the sensitivity and specificity of the VIVO searches.
Results: Our results are not complete yet. We anticipate that the sensitivity and specificity of the VIVO Harvester to detect an accurate list of citations for the twenty-six researchers in PubMed will be sixty to eighty. Inaccuracies will likely be due to limitations in the PubMed database (e.g., no controlled vocabulary for author and institution affiliation, institutional affiliation information only recorded for the first author, etc.). This information will be helpful in suggesting improvements to the developers of the VIVO Harvester and for the faculty librarians.
Conclusions: Our results are not complete yet. We will report our findings at One Health.

148

Importance of Chapter Membership: A Twenty-Year Data Analysis Δ

Sandra L. Bandy, AHIP, Chair, Content Management; **Kim Mears,** Nursing Information Specialist; Robert B. Greenblatt, M.D. Library, Georgia Regents University–Augusta
Objectives: This project analyzes twenty years of recorded membership history from one of the fourteen chapters affiliated with MLA. A search of the literature revealed national-level program evaluations, new initiatives, and lessons learned but no chapter-level articles specifically on membership. Outcomes will illustrate trends in membership and the possible need for stronger guidelines in retaining members.
Methods: The Southern Chapter of MLA has used FileMaker for recording membership information. Information includes years of service to the organization plus year joined, contact information, committee volunteer request, Academy of Health Information Professionals level, library type, and membership in MLA. The data collected are also used for the annual printed membership directory. Several data sets will be gathered that will study the dynamics of the chapter, longevity of members, and retention with the chapter's recently formed two-year free student membership.
Results: From 1992 to 2012, the average membership for the Southern Chapter was 359 members. The highest membership occurred in 1996 with 402 members, and the lowest membership occurred in 2006 with 285. Data trends demonstrate a drop in state membership levels in the corresponding state that hosted the annual meeting the following year. Membership rates also dropped when the annual meeting was hosted outside of the chapter region. Development of new medical schools around the region resulted in a 62% increase in academic librarians' membership, while hospital librarians have seen a 45% drop in membership rates. Other data collected included types of MLA membership and librarians' membership to the Academy of Health Information Professionals (AHIP). In 2008, the chapter adopted a 2-year free student membership, with an average of 20 members per year since then. In its 5-year history, we have had 47 student members with 10 students joining the chapter as a full member after the free membership expired.
Conclusions: According to the American Society of Association Executives (ASAE), the average retention rate is between 82%–90%. Southern Chapter's overall retention rate is 89%, affirming the value librarians receive through membership. Data also revealed that student retention is 63%, which is below acceptable ASAE guidelines so additional support may be needed. A search of the literature suggested guidelines to increase retention rates of student members.

152

Improving Health Information Knowledge for Public Libraries: A Public Library, Cancer Center, and Health Sciences Library Partnership Δ

William Olmstadt, AHIP, Public Health & Community Outreach Coordinator, Bernard Becker Medical Library; **Jackie Bernstein,** Program Coordinator, Program for the Elimination of Cancer Disparities, Siteman Cancer Center; School of Medicine, Washington University, Saint Louis, MO; **Jan Daley,** Branch Manager, Baden Branch, St. Louis Public Library, Saint Louis, MO; **Robert J. Engeszer, AHIP,** Associate Director, Translational Research Support, Bernard Becker Medical Library, School of Medicine, Washington University in St. Louis, Saint Louis, MO; **Brenda McDonald,** Director, Central Services; **Joyce Robinson,** Training Assistant; St. Louis Public Library, Saint Louis, MO; **Monica Rogers,** Health Information Literacy Coordinator, National Network of Libraries of Medicine, MidContinental Region, Health Sciences Library, Creighton University, Omaha, NE; **Paul Schoening,** Associate Dean, Academic Information Management, and Director, Bernard Becker Medical Library, School of Medicine, Washington University in St. Louis, St. Louis, MO; **Lee Williams,** Training Specialist, St. Louis Public Library, Saint Louis, MO
Objectives: This poster describes a partnership between three agencies in the urban Midwest, with three aims: (1) Survey public library staff to determine current health information requests made to them. (2) Use those data to create health information kiosks in the public libraries. (3) Develop training to improve public library staff comfort and skill answering health questions.
Setting/Participants/Resources: Urban, Midwestern comprehensive cancer center and health sciences library at private medical school. The public library system has 15 branches and serves 85,000 cardholders. The project is funded by the National Cancer Institute.
Methods: In 2011, public library staff completed a fourteen-question web survey about their health information familiarity and health questions the public was asking. These data were used to identify materials for four health information kiosks, strategically positioned at larger public library locations in the metropolitan area. The data were also used to develop two three-hour training sessions for public library staff, held in summer 2012, designed to increase comfort and skill answering health-related questions.
Results: For the survey, 62 of 68 public library staff returned usable responses (91.2% response rate). All public library branches had a response. Of those surveyed, 87% believed visitors to the public library would benefit from more exposure to consumer health information and services. Almost 20 public library staff attended the 2012 training sessions, giving them relatively positive reviews.
Future Direction and Conclusions: Collaborators are working to track kiosk impact and literature distribution. In 2013, the group is investigating programming for the public and may include workshops on dealing with neighborhood violence or

navigating cancer care. Training sessions are likely to be offered again, as public library staff change.

156

Integrated Library Model Support for a New College of Medicine

Tiffany Moxham, Department Head, Medical and Health Sciences Collections and User Services; **Bonnie DiGiallonardo,** Medical Librarian, College of Medicine; **Allison DeLuca,** Senior Library Technical Assistant, library; Florida Atlantic University–Boca Raton

Objectives: To present the opportunities and challenges associated with an alternative library model to implementation of information resources in support of a college of medicine's curriculum and research needs. Four areas of implementation related to a new medical school will be presented: curriculum integration, preceptor and affiliate outreach, collection development, and reporting structures.

Methods: As an integrated library serving the needs of a new medical school with a large community-based faculty, our implementation of information support provides valuable insight into the integration of library resources and personnel in the medical school curriculum and research support. Given our uncommon situation as an integrated library serving the college of medicine, our aim is to present an alternative integrated liaison model and assess the effectiveness of the model. The poster focuses on four main themes: curriculum integration, preceptor and affiliate outreach, collection development, and reporting structures. An analysis of the opportunities and challenges associated with developing information services for a new medical school in the context of limited staffing resources and an integrated library is explored.

160

Integrating Information Literacy and Research Skills into an Online, Graduate Nursing Curriculum Δ

Jennifer S. Walker, AHIP, Research Assistant Professor and Liaison, College of Nursing, William E. Laupus Health Sciences Library; **Linda Mayne,** Associate Professor and Director, Graduate Core Curriculum, College of Nursing; **Roger Russell, AHIP,** Associate Director, User Services, William E. Laupus Health Sciences Library; East Carolina University, Greenville, NC

Objectives: To improve the level of information literacy and research skills among distance education, graduate nursing students in the area of identifying and using evidence-based research.

Methods: A nursing library liaison and nursing professor designed an assignment to evaluate information literacy and research skills of students for online course: "Research Methods for Advanced Nursing." Students are asked to retrieve evidence to support material from a selected article. An online survey will record database or search engine preferences for seeking evidence-based information and collect socio-demographic information. An analysis of the assignment and survey are used to assess the students' ability to access evidence-based references and identify significant associations between use and accessibility of electronic resources based on students' geography and available technology. Based upon results of the assignment and survey, an online intervention will be designed for future distance education nursing students. This intervention will increase skills to perform online searches, assess quality of electronic resources, and offer detailed instruction on finding information that is evidence based.

Results and Conclusions: The results of the study data do not align with the anecdotal evidence. Students scored well on the assignment portion of the study but continue to show signs of struggling with literature searching in their regular class assignments. The demographic data collected helped the researchers understand more about the population, but no correlations between the study exercise and demographics were identified. This study will be used to guide changes in already existing online modules and a change in library orientation session during the larger program orientation is expected.

164

Interactive E-Textbooks: Millennial Medical Students' Learning Preferences Δ

Shalu Gillum, AHIP, Public Services Librarian; **Nadine Dexter, AHIP,** Director; **Michael Garner,** Medical Informatics Librarian; **Deedra J. Walton, AHIP,** Electronic Resources Librarian; Harriet F. Ginsburg Health Sciences Library, College of Medicine, University of Central Florida–Orlando

Objectives: To determine first-year medical (M1) students' learning preferences, this project evaluated the instructional efficiency and student's perceptions toward three modalities of medical textbooks: interactive ("smart") e-textbook, print, and online e-textbook.

Methods: The health sciences library deployed Apple iPads to all of its medical students. This comparative study evaluated the instructional efficiency of Inkling interactive e-textbooks ("smartbooks") compared with print textbooks and noninteractive e-textbooks for learning gastrointestinal physiology. It also assessed student preference toward different modalities of textbooks. Sixty-six M1 students volunteered for the study. The study used a pretest/posttest comparison group design, and collected data were examined by analysis of covariance. Data collected included: (1) time spent on instruction and solving test questions, (2) mental effort during instruction and test, and (3) students' performance. Data on students' perceptions were collected using a closed-ended questionnaire and two focus groups. An analysis of emerging themes was validated by data compiled from the questionnaire and focus groups.

168

International Donations Program: Connecting Those Who Have with Those Who Need

Pamela M. Rose, Web Services and Library Promotions Coordinator, Health Sciences Library, University at Buffalo, Buffalo, NY

Objectives: To provide a central, universal platform to connect organizations and programs that need educational materials with potential donors.

Methods: The International Donations Program web page (libweb.lib.buffalo.edu/dokuwiki/hslwiki/doku.php?id=book_donations) lists requests from poorly funded institutions, programs, and local town and village initiatives that are in need of books and other educational materials. Potential donors all over the world may choose to send to the program that best matches the subject areas of their collections.

Results: Since the debut of the page in 1998 with just 22 listings, the site has evolved. A reorganization in 2000 added a geographic index and criteria to exclude personal requests. As of January 2013, the page listed 126 programs from 37 countries, including 19 large redistribution programs. We continue to receive additional requests each month. Programs included and on equal footing range from the broadly based and long-standing Books for the World project to the Rehmania Public Library, a tiny initiative begun by a few residents in a remote area of Pakistan. The URL

continues to be the second most visited page on library's website according to Google Analytics. During December 7, 2012,-January 6, 2013, the page garnered 1,213 unique page views out of a total 4,292, approximately 28%. A number of other libraries, including NLM, link to the page. Over the years, many have written to report on the usefulness of the page. Librarians refer patrons who wish to donate books; donors ask for guidance on where to donate books in specific subject areas; and programs listed on the page report donations that have come as a result of their listing. Donors seem to be willing to overcome hurdles, such as customs forms or higher postal costs, in the greater spirit of giving.

Conclusions: The International Donations Program web page has proven to be a useful resource for both libraries and the general public. While information is increasingly available and being accessed electronically, there continues to be a demand for print resources, especially in the less developed areas of the world. The UB Health Sciences Library at the University at Buffalo will continue to maintain the International Donations Program resource. Future plans include converting the data into a more accessible database format.

172

iRound: Bringing Evidence-Based Medicine (EBM) to Family-Centered Clinical Teaching Rounds Δ

Kristina M. Flathers, Medical Librarian, Medical Education, Alfred I. duPont Hospital for Children of the Nemours Foundation, Wilmington, DE

Objectives: To demonstrate the successes and lessons of outfitting each of three general pediatrics residency teams with iPads, one each distributed to the senior resident, attending physician, librarian, and nursing. Our four, realized goals were: optimize interactions between medical librarian and clinical teams during clinical rounds, enhance attending physicians' teaching points, increase utilization of evidence-based medicine (EBM) resources, and improve patient outcomes and satisfaction.

Methods: This program evaluated the utilization of efficient mobile technology during family centered clinical teaching rounds at a 193-bed teaching hospital served by a solo professional librarian. Residents work on block rotations, with the senior resident remaining with the team for approximately four weeks, and the attending physicians and medical librarian rotating through the teams weekly. Each team member had the capability to access the electronic medical record (EMR) through the iPad and perform his or her own searches within our point of care resources for real time clinical applications. Our target audience included pediatric medical residents, physician staff, and nurses. The librarian gathered observational reports during rounds; pre- and post-project surveys were sent to internal participants to determine user experience, understanding of EBM and awareness of electronic resources, usefulness of the device and applicability during rounds. Planning: The librarian partnered with information systems (IS) in early stages of the program and received support throughout the process. Project objectives were approved by high-level stakeholders, across every involved discipline. The resident teams eagerly awaited increased means of efficiency for rounds; current access was rife with technical glitches. The librarian utilized an iPad on rounds before the project launched and prepped distributed iPads with apps, bookmarks, protective cases, stylus upon request, and user tips in the Notes app. The director of residency was additionally given an iPad, while securing attending physician's buy-in.

Results, Observations, and Conclusions: The follow-up survey had few respondents. Some teams experienced technical issues, strategic partnerships with IS proved invaluable. Predominantly, teams reported increased efficiency in discharging patients. Attending physicians, residents, and medical students showed marked interest in learning about resources and access. Pharmacists' demonstrated unanticipated buy-in and perceived an unexpectedly high impact on patient education. Overall utilization of specific library resources increased for nursing and residents and a demonstrated preference for majority of clinical decision support searching guided by embedded librarian. Residents and physicians have a greater awareness of library resources and ease of accessibility. Our profile dramatically increased, along with utilization of our space and resources. We added a 0.75 professional medical librarian!

180

Librarian Housecalls: Measuring the Impact in Family Medicine Offices Δ

Marita Barton Malone, Medical Reference Librarian, Library, Cooper Medical School, Rowan University, Camden, NJ; **Susan K. Cavanaugh,** Evidence-Based Medicine Librarian, Library @ Cooper, Camden Campus, University of Medicine and Dentistry New Jersey–Camden

Objectives: The purpose of librarian housecalls to family medicine offices was to increase knowledge, confidence, and skills in using library resources at the point of care. We hypothesized that the program would improve use of library resources to answer patient care questions.

Methods: The library partnered with the chief of family medicine. All family medicine physicians were required to participate in a library education outreach program that was also open to office staff. Each office was offered a one-hour session or two half-hour sessions to accommodate individual office schedules. Participants were instructed in the use of library resources and were taught basic search skills. Program evaluation consisted of one pre-session and two post-session information skills questionnaires completed at two and six weeks post-education. Questionnaires inquired about use of resources, confidence in using resources, and use of certain search techniques. Participants also completed a survey at the end of each session to gather immediate short term impact. The questionnaires used Likert scale Grading. Paired *t* tests were used to compare the scores of the two and six week surveys.

Results: The busy nature of family medicine offices allowed only physicians to participate. Office staff expressed interest in future training. The resulting sample size was extremely small (n=9). Results of paired *t* tests were not statistically significant. Reported results are descriptive statistics. Since subtle variations in the pre-session questionnaire negated the comparison of these data to the post-session questionnaires, reported results are of the 2- and 6-week post-session questionnaires. The 2-week follow-up response rate was 100%, and the 6 week follow-up response rate was 77% (n=7). The most positive results were in physician confidence. Two-week follow-up revealed that 7 out of 9 physicians felt slightly more or much more confident in using Essential Evidence Plus, PubMed, full-text electronic journals, and the Cochrane Library. In use of DynaMed, 100% reported being slightly more or much more confident at both 2- and 6-week follow-up. Two week post-session questionnaires revealed that 6 out of 9 physicians reported using clinical guideline websites either slightly more or much more than before training.

Conclusion: Evaluation of the outreach program regressed into a pilot study due to the small sample size. However, the positive changes reflected in reported statistics support exploring expansion of this training to other departments. Plans are in place to offer sessions to family medicine office staff.

188

Local Applications of the Fresno Test and Other Assessments of Information Management Competency

Diana J. Cunningham, AHIP, Associate Dean and Director; **Marie T. Ascher, AHIP,** Associate Director, User Services; Health Sciences Library, New York Medical College–Valhalla

Objectives: The health sciences library continually seeks ways to assure its users are achieving formalized information management competencies, as well as tools that enhance teaching and provide credence to program directors. The Fresno test is a reliable, validated tool that is used to measure competence in evidence-based medicine (EBM), which has a strong emphasis on the literature searching component.

Methods: This descriptive poster will provide information about several local applications of the Fresno test at the health sciences library. The library has utilized the Fresno test as a pre- and post-test strategy for several groups of our clinical constituents, as well as to serve as a self-assessment tool during instruction. Results and lessons learned from these various applications will be gathered and explored in order to promote this tool as a valuable asset in working with clinical users and measuring four of our six explicit information management competencies as well as their EBM skills.

192

Mapping the Literature of Oncology Nursing, 2007–2009

Mary E. Hitchcock, Health Sciences Librarian, Ebling Library, University of Wisconsin–Madison

Objectives: To identify and analyze the core literature of nurse anesthesia as part of the Nursing and Allied Health Resources Section's (NAHRS's) project to map the literature of nursing and allied health professions.

Methods: Using the NAHRS project protocol, a literature review was conducted to gather background information about the field of oncology nursing. Three source journals were identified after consulting the Brandon/Hill lists, Ulrichsweb Global Serials Directory, and oncology nursing faculty at the author's institutions. The source journals included in this study are: *Oncology Nursing Forum, Cancer Nursing,* and *Clinical Journal of Oncology Nursing.* Citation data for all reference types were compiled for a three-year period (2007–2009). References were then sorted into three zones, ranging from most cited journals to least cited journals, based on Bradford's Law of Scattering. Titles in Zones 1 and 2 were then checked for indexing in MEDLINE and CINAHL.

196

Mobilizing Librarians with Tablet Computers

Leilani A. St. Anna, AHIP, Information Management Librarian; **Ann Whitney Gleason,** Head, Systems; **Angela S. W. Lee,** Social Work Librarian; Health Sciences Library, University of Washington–Seattle

Objectives: The University of Washington Health Sciences Library (HSL) conducted a small pilot project to test the utility of tablet computers in various activities. The HSL expanded the project to all librarians with the goal of enabling librarians to experiment with technology in ways that will promote their roles in medical education and clinical practice and improve the delivery of service.

Methods: The personal nature of tablet computers makes them difficult to share so the HSL applied for, and received, a National Library of medicine (NLM) technology improvement grant to purchase 7 tablet computers and accessories for the health sciences librarians. Two Android computers and 5 iPads were configured and distributed to librarians for day-to-day use. Each librarian received $25 to purchase and evaluate apps. Ongoing workshops were organized to train librarians on tablet setup and use tips, tricks, and new applications. Follow-up surveys will be done to assess the program, identify ways to enhance utility of tablet computers, compare utility of tablet to laptop computers, and track ongoing issues.

Results: All HSL participants plus tablet users in the National Network of Libraries of Medicine (NN/LM) Pacific Northwest Region (PNR) were surveyed at the completion of the project. All librarians used the devices for multiple tasks, with the top uses being reading emails or documents, taking notes or word processing, and using the web. Most participants used multiple apps and recommended apps were shared via the redesigned Mobile Resources LibGuide (libguides.hsl.washington.edu/mobile). The most notable change made in how librarians do things is that they now use tablets to display and share information (give answers, demonstrate tasks, show presentations). Since mobile technologies are changing so fast, it might be too early to tell how tablets are changing work habits, but we hope to identify them in future studies. Apps that were purchased included Zotpad (Zotero), Keynote (presentation), and Papers (word processor) for the iPad and other productivity apps. The survey indicated overall satisfaction with the devices, and all but one felt it was important to job performance. All strongly agreed it was important to keep up with tablet technology.

Conclusions: The project was successful in introducing tablet technology to all of the HSL librarians. Providing each librarian with a "personal" device, allowed experimentation tailored to each librarian's needs. While some consider tablets to be an essential tool for daily work, others are still evaluating the usefulness of tablets and feel that tablet devices cannot yet replace a desktop or laptop computer.

200

No Subscription? No Problem! A Trial Implementation of Copyright Clearance Center's Get It Now Service Δ

Christy Jarvis, AHIP, Information Resources Librarian; **Jean P. Shipman, AHIP, FMLA,** Director; **Joan Marcotte Gregory, AHIP,** Associate Director, Information Resources and Facilities; **Amy Birks,** Senior Library Specialist, Interlibrary Loans; **Camille Salmond,** Library Specialist; Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

Objectives: The aim of this study is to evaluate the feasibility of using Copyright Clearance Center's Get It Now (GIN) service to provide prompt fulfillment of full-text articles from selected unsubscribed journals.

Methods: As an alternative to initiating new journal subscriptions, administrators at the Spencer S. Eccles Health Sciences Library set aside funds to support article-level access to unsubscribed content from frequently requested journals. Access was provided through Copyright Clearance Center's GIN unmediated service with appropriate spend limits in place. Article retrieval statistics are being analyzed to gauge user demand for each journal. Usage statistics and monthly invoices are being used to calculate total spend for each journal. This amount will be compared

to the cost of an annual subscription to determine if any cost savings were realized as a result of purchasing individually requested articles in lieu of full journal subscriptions. This amount will also be compared to the cost of obtaining articles via interlibrary loan (ILL) to determine if this approach leads to either cost savings or losses in relation to ILL costs.
Results: It is assumed that GIN article delivery costs will represent moderate savings in comparison to obtaining articles via ILL. Speed of article delivery of GIN surpasses average ILL times, particularly when compared to requests submitted outside of normal hours of operation. User feedback has confirmed patron satisfaction with receipt of high-quality, color PDF content. In its early stages of implementation, the library has saved significant money by purchasing individual articles in lieu of initiating annual subscriptions to the selected journals.
Conclusions: For selected content, GIN is a viable method for providing users with rapid access to full-text articles from unsubscribed journals. Further assessment is needed to determine the scalability of this article-delivery model and to refine the selection criteria used when enabling this service for individual journal titles.

212
One Health Trends Revealed through Veterinary School Bibliometrics Δ
Barbara Hamel, Collections and Information Services Librarian, Steenbock Memorial Library, University of Wisconsin–Madison; **Jessica R. Page, AHIP,** Assistant Professor and Head, Veterinary Medicine Library, Ohio State University–Columbu; **Heather K. Moberly, AHIP,** Coordinator of Veterinary Services, Medical Sciences Library, Texas A&M University–College Station; **Gregory Youngen,** Associate Dean, Library Services, Indiana State University–Terre Haute
Objectives: Veterinary medical research traditionally focuses on animal health and wellness; however, recent research at veterinary colleges goes much further. An analysis of Web of Knowledge-indexed peer-reviewed articles from researchers at twenty-eight accredited veterinary medicine colleges of in the United States indicates increasing interest in human and public health issues, interdisciplinary collaboration, and nontraditional research.
Methods: Web of Knowledge is the search tool for this study because of its interdisciplinary coverage and its availability to all of the researchers involved. Search strings were developed for all colleges of veterinary medicine (CVMs) and refined with input from all veterinary librarians. The revised strings were searched and analyzed. Then results were exported for subject area, source title, institution, country, year, and all citation information. Using Excel, data were compiled and standardized from all CVMs. Pivot tables identified trends. Textual analysis tools and visualizations—including word clouds, maps, and bubble charts—clarified the data through illustration.
Results: Data analysis identified trends in interdisciplinary work across CVMs, specialties within specific CVMs, and relationships between CVMs. Visualizations are from ManyEyes. Comparison of the publishing output of the CVMs highlights their differing needs, scopes, and focus. Veterinary schools with exceptional research output are evident, as are those with unusual programs or emphasis.
Conclusions: The study identifies journals outside the traditional veterinary medical literature where veterinary faculty publish, research areas outside veterinary medicine in which veterinary faculty are publishing, and institutional collaborations and overlap. Areas of research emphasis at individual institutions are highlighted. This information can assist veterinary medicine librarians in developing collections that fully support the interdisciplinary research conducted by their patrons. Furthermore, data on areas of research can help veterinary medical researchers locate collaborators across disciplines and across institutions.

216
One of a Kind: A Unique Evidence-Based Practice (EBP) Course in a US Medical School Δ
Jonathan Eldredge, AHIP, Associate Professor, Health Sciences Library and Informatics Center; **Toby Palley,** Co-Medical Director, Family and Community Medicine; University of New Mexico–Albuquerque
Objectives: To evaluate a unique three-year-long evidence-based practice (EBP) course, required since 2010 for all 106 medical students. This credit course, codirected by a librarian and physician, emphasizes question formulation, searching, and critical appraisal. The librarian leads the course during the first year of medical school and serves as the instructor of record.
Methods: Prospective longitudinal evaluation: The medical school's assessment unit independently tracks anonymous student feedback for all segments of the course. Student grades on tests and exams maintained by the two instructors gauge student mastery of skills such as EBP searching for needed evidence. The instructors employ active learning teaching techniques and student peer assessment to reinforce EBP knowledge and skills. Medical students are tested on their EBP search skills at one week, one month, two months, and then sixteen months after their intensive training during the fourth month of medical school. These exams measure student retention of EBP searching skills.
Results: Students consistently rate the EBP course above the mean for other courses and blocks in the first year of the medical school curriculum. During months 4 and 5 of medical school, students learn most of their question formulation and EBP searching skills. Students consistently rate the course during this first year for organization and their learning the EBP process at either a 3.8 or a 3.9 level on a 5.0 Likert scale. The EBP labs where students learn Medical Subject Headings (MeSH), subheadings, and filters have remained at a 4.1 level continuously since the beginning of the course in 2010. The librarian instructor won a Hippo Award for excellence in teaching from the students during 2012, which suggests that students value the EBP training overall.
Conclusion: An EBP course might be a suitable venue in a medical school curriculum for students to learn their question formulation and EBP searching skills.

220
One Tool for Many Tasks: Integrating iPads into the Third-Year Learning Experience Δ
Amy Honisett, AHIP, Education Librarian; **Nancy T. Lombardo, AHIP,** Associate Director, Information Technology; Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City
Objectives: To integrate iPads into the school of medicine's third-year curriculum, instruct students on how and why to use mobile devices during their education and in a clinical setting, introduce digital literacy concepts into the students' coursework, and raise awareness of professionalism and ethics issues related to mobile devices in medical practice.
Methods: The library will purchase and manage the iPads for students to check out during the six-week pediatrics clerkship. Through planning with the course instructor and the academic

coordinator, mobile applications relevant to the practice of medicine will be selected and preloaded on the iPads. An application with which the students can store, annotate, and fill out forms in portable document format (PDF) format will be included. Testing and communication with faculty will be done with the iPad. Web-based library resources and e-textbooks will be introduced to the students during the course. A process for resetting the iPads to a standard configuration after the students have returned them will be developed. A survey will be developed to assess how the students use the devices and how useful the students feel the iPads are to their education and to their careers.
Results: The library purchased eighteen iPads and loaded them with a variety of medical and productivity apps. In July, we began assigning iPads to students for the duration of their six-week pediatric rotations. We work with the course instructor and the academic coordinator to train the students on security, wireless access, and how to use and compare apps that are relevant to clinical work in pediatrics.
Conclusions: So far, the results seem to be positive: student feedback shows preferences among the apps that are evaluated. Students become facile with the devices very quickly. Our survey shows student attitudes toward the devices and how useful they find the iPads to their personal, educational, and professional lives.

224

Open Access Journals and the Increased Availability of Animal Alternatives Information

Mary W. Wood, Librarian, Carlson Health Sciences Library, University of California–Davis; **Carol Howard,** Communications Associate, Center for Alternatives to Animal Testing, Johns Hopkins University, Baltimore, MD; **Lynette Hart,** Professor, School of Veterinary Medicine, University of California–Davis
Objectives: Online publication of full-text journal articles has greatly simplified and increased access to scientific literature, including literature concerning animal alternatives and animal welfare. Open access publishers and journals, however, are those making access truly equally open. Without requiring paid subscriptions or memberships, open access journals may be read by anyone with access to the Internet. That US voters support animal welfare is evidenced in part by the Animal Welfare Act, which legislates consideration of alternatives to the use of animals in research, and the creation of Interagency Coordinating Committee on the Validation of Alternative Methods (ICCVAM), a US governmental entity whose purpose is to validate alternative methods. Internationally there is concern and legislation, as well, ranging from the extremely detailed animal welfare regulations found in the Netherlands to the very first regulatory steps being taken in India. Unencumbered access to the most recent alternatives research facilitates discussion and allows the research that interests so many to be freely shared internationally.
Methods: Open access publishers like BioMed Central and Public Library of Science (PLoS) publish peer-reviewed scientific and medical research literature that is immediately freely available as public resources. Societies may have select open access publications, and there are also publishers that publish subscription-based journals but are freely available online, unembargoed, like *ALTEX.* Repositories of published research results include PMC (previously known as PubMed Central), which is directly related to National Institutes of Health (NIH) public access policy and is a free digital archive of biomedical and life sciences journal literature. These are just a few examples of the open access options available to the scientist for research and publishing.
Results: Journal impact factors are one way to measure value. Considering impact factors of journals with similar content, open access versus subscription-based, is imprecise; however, it does at least indicate that open access is no deterrent to readership. Comparing views and downloads data, evidence supports the intuitive belief that open access increases the potential audience and thereby increases readership. It is clear that the publications must be indexed and thereby searchable in order to be reliably found; publications indexed in PubMed are more likely to be retrieved and read than an unindexed publication.
Conclusions: This poster will describe options for authors interested in locating an open access publisher, compare use statistics of select open access and subscription-based journals, as well as identify open access journals likely to be of relevance to meeting attendees.

232

Patient Education in Plain Language: Addressing Health Literacy Challenges through Plain Language Materials

Carr Meagan, Resource Media Specialist, Ben Franklin Center Library, Franklin Memorial Hospital, Farmington, ME
Objectives: As part of a statewide health literacy learning collaborative, awareness was increased within the institution of health literacy and integrate health literacy standards into patient education materials at the health care system level.
Methods: As part of an interprofessional team tasked with increasing awareness of health literacy at the institution level in a rural health care system, library efforts are focused on patient education materials in a variety of media. Policies and procedures were developed so that all new materials have to go through patient education committee for approval before use with patients. All new materials were assessed for plain language, an evidence-based strategy to address health literacy. High-use materials were evaluated and recreated to conform to plain language. The library purchased library-on-wheels multimedia carts through donated funds for easy mobile access to patient teaching materials. Training and advocacy was provided at department and manager meetings. The ultimate goal is to centralize patient education materials in the library for consistency and ease of access.

237

Improving the Clinical Query Service of the Royal College of Obstetricians and Gynaecologists Library Δ

Elaine Garrett, Reader Services Librarian, RCOG Library, Royal College of Obstetricians and Gynaecologists, London, United Kingdom; **Lucy Reid,** Head, Library and eLearning Services, Reay House Library, South London and Maudsley National Health Service Foundation Trust, London, United Kingdom
Objectives: To find out if changes made to the clinical query service following a survey in 2010/11 have improved the impact or value of the service. The changes included alternative response times, clearer branding that the information is provided by librarians, and wider promotion.
Methods: A repeat of the previous survey was undertaken using SurveyMonkey, over six months. A request to participate was sent to members of the Royal College of Obstetricians and Gynaecologists (RCOG) who submitted queries, (Group A) and added to each query response available freely on the website (Group B). Initial questions related to one individual response, asking why the information was required, if it answered the question, and what was the immediate or likely future impact of the information. Subsequent questions related to service provision, asking if the reader was aware that the answer was provided by a librar-

ian, if the answer was received in a time that met their needs, and what alternative response times they would have preferred. Finally, there were questions about previous and future use of the service. The results of the two surveys were compared.
Results: Twenty-eight queries were submitted by 23 individuals. Group A included 7 surveys, and group B 155; 52% required information in relation to a particular individual; 79% overall said the response answered or partially answered their question; 48% were aware the response was prepared by a librarian. All of group A received a response in time to meet their needs. Four would have requested a quicker turnaround. Ninety-seven percent of respondents would use the clinical query service again. There has been a 56% increase in the number of queries submitted, a 4% increase in the number aware that the response was prepared by a librarian, and an improved match between actual and preferred response times. There was a decrease in the number of surveys completed, in the proportion requiring information in relation to a particular individual, and in the percentage who said the response answered or partially answered their question (from 87% to 79%).
Conclusions: There has been an increase in the number of queries submitted; however, it remains difficult to obtain feedback. More work is needed to make it immediately apparent how the response is generated. Offering a range of response times has meant that more queries are answered within the requesters preferred timeframe. However, users would still prefer quicker turnaround times.

241

Students, Librarians, and a Practice-Based Research Network: A Transformative Collaboration

Beth Layton, AHIP, Director, Oliver Ocasek Regional Medical Information Center; **Susan Labuda-Schrop,** Vice Chair, Administration and Community Outreach, Department of Family and Community Medicine; Northeast Ohio Medical University–Rootstown

Objectives: Librarians at the Northeast Ohio Medical University and the institutional primary care practice-based research network (PBRN) are collaborating on research about information-seeking behaviors of primary care physicians and readability of patient education written materials. This research was conducted at the PBRN member sites. The research team includes medical students, a librarian, readability experts, and medical sociologists.
Methods: For two years, a librarian has been the principal investigator on two initiatives involving a primary care PBRN. A summer 2011 research project, based on previous research conducted at the PBRN sites, focused on the information-seeking behavior of physicians. The librarian and faculty partner developed the proposal and broadened it to include additional research on patient material readability. The medical student researchers were funded through an institutional program; they acted as physician observers and material raters. All partners brought unique skills to the research. The faculty partner had experience in conducting this research; the librarian added knowledge of information-seeking behavior theory and literacy. The summer 2012 proposal on the readability of patient materials generated by electronic health records was accepted and the research completed.
Results: This was a truly collaborative effort. The 2011 research concept was developed by a librarian and the vice chair for administration and community outreach in the department of family and community medicine and presented to the PBRN; they also provided oversight of the research. The host sites were recruited through the PBRN; the vice chair for administration and community outreach coordinated host site visits. The medical student researchers prepared the research protocol, gathered data through physician observations, rated material, provided insights into the analysis of the data, and presented findings at the Ohio Academy of Family Practice Symposium on Research & Education on March 31, 2012. The librarian was the principal investigator, monitored the institutional review board process, and identified an appropriate question taxonomy. An expert in patient education material readability instructed the students in applying the readability tool. A medical sociologist assisted with data analysis.
Conclusions: Librarians must play a role in research conducted outside the library. Further, librarians can, and should, identify opportunities where they can initiate research and take on pivotal roles. Librarians' team building skills are invaluable in coordinating collaborative research. Librarian partnerships with clinical and educational environments are necessary when doing research outside the library; this research has the potential to transform health care delivery.

245

Consumer Health Information Provision in Rural Public Libraries Δ

Mary Grace Flaherty, AHIP, Doctoral Candidate, School of Information Studies, Syracuse University, Cincinnatus, NY

Objectives: New York State has three counties without hospitals, yet every county has at least four public libraries. In many rural communities, the public library is the sole outlet for health information access. This case study explores one approach to health information provision by a central library within a public library system and presents an analysis of its apparent effect on health information resource provision regionally.
Methods: The organizational factors that influenced the establishment of a consumer health resource center within a public library system in rural upstate New York were investigated to better understand how this type of organizational commitment evolved in the public library setting. An extensive analysis using documents, interviews, and observation was employed to discover what organizational influences led to this type of approach for health information provision and what effect it had on regional service provision.
Results: The center was initiated by a local community member, who was not from the library field, and established with grant money from a local foundation. The grant provided funding for hiring a medical librarian. The center was created as a model and combined rural and urban libraries. At its height in the early 2000s, the center fielded 500–1,200 health reference questions annually and won state and national awards. The medical librarian who established the center enjoyed a close professional relationship with the local hospital librarian, enabling a seamless relationship between the public library and the hospital. When the medical librarian left in 2004, she was replaced by a public librarian. Since the mid-2000s usage of the center has declined considerably. Visits to libraries that are currently served by the center demonstrated that the center as a health information resource did not have a meaningful effect on authoritative resource provision.
Conclusions: At its inception, the center was very successful in bridging the medical/health sciences and public library communities, perhaps due to the placement of a medical librarian within the public library setting. When the medical librarian left, the success of the endeavor declined. While dynamic individuals can initiate projects, it is difficult to sustain the same level of success when they leave if practices are not institutionalized and a new champion is not involved.

249

The Red Cup in the Library: A Case Study Δ

Judit Ward, Director. Information Services, Center of Alcohol Studies, Rutgers University, Piscataway, NJ

Objectives: To describe and analyze components of successful collaborations in a university research center to address alcohol-related health issues, including college drinking in the community and beyond. To highlight the library's contribution to the efforts of the Center of Alcohol Studies in research, publication, clinical services, education, and training, as well as sustainable risk reduction.

Methods: The paper describes best practices in a small research library with limited resources as it has been integrating its daily operations all research-related activities, training projects, and publishing as well as community outreach related to alcohol studies in a college setting. The paper demonstrates the library's leadership in facilitating collaboration, introducing and implementing collaborative tools and methods, and actively participating in a variety of projects, such as training assistants for a women's treatment project, maintaining online presence of a risk reduction program, and recommending material for pleasure reading to recruit research participants. As a result, the library's position within the organization is perceived as stronger than ever. Rounding up the library's endeavors in promoting collaboration in a multicultural interdisciplinary center is expected to provide a better understanding how librarians can foster partnerships, strengthen ties in an organization, and become indispensable.

Results: The library is one of the five equal pillars of the Center of Alcohol Studies (CAS) and as such, collaborates with the other divisions in research, education, treatment, and publication. In addition to traditional and web-based tools to foster research and educational activities, the library also stepped up and implemented new venues and activities for the benefit of the entire CAS community. Communicating constantly with CAS faculty has proved the main factor in understanding their information-seeking behaviors, which resulted in the library's successful integration into the CAS. By identifying emerging user needs, the library has become a staple for any new initiative at the CAS, including all research on substance abuse, evaluation of research output on the individual or project level, creation and provision of educational materials and information resources for a variety of activities, and town and gown outreach programs. Promoting technology applications selected to match the scholarly communication needs at the center, the library has managed to break down some barriers and eliminate technology anxiety, while creating mutually beneficial relationships. Currently every division relies heavily on the library as a partner and resource in the broadest sense.

Conclusions: Proficient in identifying evolving trends, the library has been monitoring short- and long-term information needs, research methods and practices, or technology. With a strong focus on sustainable collaboration and setting up priorities defined by actual and anticipated needs, the library has developed into a cohesive force within the center. Reinterpreting the responsibilities of the academic research librarian and developing skills to meet the ever-evolving needs created a more participatory role for the librarian, and the outcome is a rewarding experience both ways.

253

Team-Based Learning: Creating a Better Learning Experience for PubMed Instruction

Connie Schardt, AHIP, FMLA, Associate Director, Research and Education Services; **Megan von Isenburg, AHIP,** Associate Director, Research and Education Services; Medical Center Library & Archives, Duke University, Durham, NC

Objectives: To improve the engagement, participation, and retention for evidence-based medicine (EBM) and PubMed instruction for second-year medical students.

Methods: Team-based learning (TBL) uses a specific sequence of individual preparation work: a pre-class assignment, then in class, an individual assessment followed by a group assessment, and then application activities to practice the concepts. TBL relies on group work and holding students accountable for coming to class prepared and ready to contribute to the discussion. Our medical school is moving toward a TBL-based curriculum and is encouraging faculty to adopt this model for their teaching. The library participated in a TBL training session for PubMed at a workshop for psychiatry program directors. We took this model and refined it to provide EBM and PubMed instruction for second-year medical students. We will discuss TBL theory and process, and explain how we employed it to create an engaging and interactive educational session related to EBM.

Results: This is a description of our project. There are no results to report.

Conclusions: This is a description of our project. Conclusions will be published on the poster.

257

Partnering with State Libraries: Supporting Public Library Health Information Programs and Training Δ

Barbara Jones, Missouri Library Advocacy Liaison, J. Otto Lottes Health Sciences Library, University of Missouri–Columbia; **Jim Honour,** Wyoming/Member Services Coordinator, Coe Library, University of Wyoming–Laramie; **John Bramble,** Technology Coordinator, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City; **Dana Abbey,** Health Information Literacy Coordinator, National Network of Libraries of Medicine, MidContinental Region, University of Colorado Anschutz Medical Campus–Aurora; **Rachel Vukas,** Kansas/Technology Coordinator, National Network of Libraries of Medicine, MidContinental Region, A. R. Dykes Library, University of Kansas Medical Center–Kansas City; **Marty Magee,** Nebraska/Education Coordinator, McGoogan Library of Medicine, University of Nebraska Medical Center–Omaha; **Betsy Kelly,** Associate Director, Health Information Resources and Assessment, and Evaluation Coordinator, National Network of Libraries of Medicine, MidContinental Region, Becker Medical Library, School of Medicine, Washington University in St. Louis, St. Louis, MO

Objectives: Coordinators collaborated with the state libraries in a six-state region to assess the needs of public librarians supporting access to health information. Analysis of the assessment will guide subsequent programming and training for public librarians.

Methods: An earlier focus group indicated significant interest among public librarians in training opportunities, but attendance at educational webinars or face-to-face sessions between 2009–2012 was minimal. A questionnaire was developed to determine training needs, interests, and delivery preferences. State librarians agreed to encourage public librarian participation and to distribute the link to the online questionnaire through state library email discussion lists. Responses were collected, analyzed, and shared with each state library. Regional outreach programming for public librarians will be adjusted to reflect the needs and interests expressed in the questionnaire responses.

265

Development of Highly Sensitive Search Strategies to Identify Reporting Guidelines in PubMed, Embase, CINAHL, and Web of Science Δ

Shona Kirtley, Research Information Specialist, EQUATOR Network, Centre for Statistics in Medicine, University of Oxford, Oxford, United Kingdom

Objectives: Reporting guidelines are efficient tools for improving research reporting. However, inconsistent terminology use, due to methodological variations during guideline development, has impeded database indexing, searching, and retrieval of reporting guidelines. This paper discusses the development of search strategies to identify reporting guidelines and provides recommendations for librarians, authors, and indexers regarding improving descriptive terminology and database retrieval of reporting guidelines.

Methods: A gold standard set of reporting guidelines in the EQUATOR Library (www.equator-network.org) was identified. Four database-specific strategies were developed by identifying controlled vocabulary terms, locating key bibliographic records to determine assigned indexing terms, identifying free-text terms, and identifying search fields. Each strategy was run on the appropriate database and the results checked against the gold standard set. Bibliographic records for known guidelines not identified were obtained, and newly identified free-text and indexing terms were incorporated into a revised strategy. The modified strategy was re-run and the results checked against the gold standard set. This process was repeated until optimal search strategies, balancing sensitivity and specificity, were achieved for each database.

Results: Search strategies comprising only common terms such as reporting guidelines, reporting requirements, or reporting standards fail to retrieve all relevant guidelines. Authors' use of inconsistent terminology to describe reporting guidelines combined with no indexing terms for "reporting guideline" within Embase, PubMed, CINAHL, or Web of Science prohibited the development of uncomplicated search strategies. We therefore adopted a pragmatic approach to strategy development, the purpose being to ensure comprehensive identification of reporting guidelines for inclusion in the EQUATOR library. The final search strategies presented are consequently highly inclusive, returning large results sets. However, in terms of their purpose and planned run frequency, on a practical level the retrieved results (with date limits applied) are manageable: achieving good recall being more important than precision in this instance.

Conclusions: The absence of database indexing terms for "reporting guideline" compounded by the multitude of terms used by authors to describe reporting guidelines impedes efficient database searching and retrieval. Consequently, developing focused yet comprehensive search strategies for each individual database proved extremely difficult. With the publication of health-related reporting guidelines increasing, it is essential that authors adopt consistent terminology and that an indexing term specifically for reporting guidelines is introduced to databases to ensure that these guidelines can be more easily retrieved by literature searches. This will ensure speedier and wider dissemination and implementation amongst health-related researchers, publishers, editors, and librarians.

269

Innovative Mobile Health Literacy Instruction Δ

Courtney Mlinar, Reference and Liaison Librarian, Health Professions Division Library, Nova Southeastern University, Davie, FL

Objectives: Medical library instruction for health professional students has a traditional curriculum (orientation, database and library instruction, evidence-based medicine or clinical effectiveness instruction), which prepares students to research medical literature. Innovation in this library instruction curriculum is needed to add instruction for mobile point-of-care resources for greater student success in rotations and residencies.

Methods: An embedded library instruction model for pharmacy students has been integrated into the Nova Southeastern University Health Professions Division (NSU-HPD) curriculum for the past three years. This model included sequential building blocks with traditional library instruction: orientation, drug literature research, evidence-based clinical drug information with major changes in the order of core courses for drug literature, and information. The library partnered with select pharmacy faculty beginning in January 2011 to provide point-of-care instruction in mobile library database apps for students. Students on rotation at the Center for Consumer Health Informatics Research (CCHIR) received this instruction from January 2011 to December 2012. These students were surveyed to evaluate the effectiveness of this instruction to their success on rotation.

Results: Students surveyed unanimously found this added sequence of instructional technology to be essential to their success on future rotations. Approximately 89% wanted the instruction to be scheduled earlier, and they felt it should be scheduled at the end of the P3 sequence or a month into the P4 sequence in the curriculum. None of the students felt the instruction was received on time. The ability to confidently locate practice guidelines, accurate drug interactions and drug dosage without these mobile resources was among the major concerns expressed. During the student 4th-year rotations and in residencies, student success may depend on access to authoritative point-of-care resources that are mobile-optimized or have mobile apps. Library instruction in these mobile apps (instructional technology and health literacy) by librarians is needed. Students also need guidance for critically evaluating mobile apps, similar to the traditional library instruction provided for evaluating websites.

Conclusions: Student library instruction should not be limited to a foundation of the traditional pharmacy school curriculum with embedded library instruction. Students must have access to authoritative point-of-care resources that are mobile-optimized or have mobile drug resource apps to feel confident and prepared in their rotations. They must become literate in mobile health technology as well as drug resources to become a competitive, innovative health professional. Embedded instruction in these mobile apps (instructional technology and health literacy) by librarians is needed. Students also need instruction for evaluating mobile apps, similar to the traditional library instruction provided for evaluating websites, and must acquire health informatics literacy.

273

@The Point of Need: Redesigning Client Services and Digital Access across a Network Δ

Elaine Alligood, Informationista and Chief, Library Service, Knowledge, Information, and Library Services, VA Boston Health Care System, Boston, MA; **Jona Bostwick,** VISN 1 Online Resource Coordinator, VA New England Health Care System, Derry, NH

Objectives: Seven thousand two hundred clinicians and researchers (CR) needed rapid point-of-care information access. Ample evidence supports using key library redesign elements: clinical and research e-content plus expanded point-of-care client-services. This task force aimed to redesign an aging traditional library

infrastructure into a robust e-content-rich, client-service model providing improved CR-centered and patient-focused services in a virtual library across six states.
Methods: The Library Redesign Task Force (TLRTF), three clinicians and two librarians, scanned the environment for past, current, or emerging services, library staff roles, and trends. TLRTF dredged data from knowledge management, informationist, and informatics projects. Collection and subscription analyses revealed duplicate subscriptions, few e-journals, and many low-use e-databases. TLRTF generated ideas and identified an ideal state and goals to strive for. These goals informed planning a working present state design, maximizing budget dollars, providing first-time access for community clinics, and notably, maximizing librarians' time. TLRTF examined duplication of effort in backroom functions (document delivery, technology, and reference services) to redesign these tasks or services virtually as part of recognizing the substantial role required for professionals in TLRTF's new client-service model. TLRTF presented a plan to leadership, approval-generated implementation, and evaluation plans written by TLRTF librarians. Work began July 2011.

277

Video-on-Demand: Bioinformatics Instruction When Needed Δ

Carrie L. Iwema, Molecular Biology Information Specialist; **Ansuman Chattopadhyay,** Head, Molecular Biology Information Service; Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA
Objectives: Our user base of researchers, students, clinicians, and other health care practitioners requires access to a variety of resources in order to do their jobs successfully. Many also prefer to learn about these resources at their own convenience. Thus, we created a collection of easily accessible and searchable video tutorials to provide biomedical instruction at the time of need.
Methods: We provide a molecular biology information service that includes consultations, distribution of bioinformatics software, workshops, and a comprehensive website. We educate our users about bioinformatics resources individually and during our classes. However, many users, based on time constraints or personal preference, request other means of instruction. We have long posted workshop slides, tutorials, FAQs, and a specialized bioinformatics search tool on our website. Nonetheless, users often require a little more guidance with these often complicated databases and tools, albeit on their own time. Thus, we recently created a searchable website housing a video collection that supplies detailed instruction for answering both common and specific biomedical queries. For this presentation, we will describe the creation of this new resource (e.g., IT support, video software or hardware), analysis of its usage, and its impact on our information service.

281

Is Open Access to One Health Equivalent across Human, Environmental, and Animal Health? Δ

Carol E. Vreeland, AHIP, Adjunct Assistant Professor, Population Health and Pathobiology, and Associate Director, William Rand Kenan, Jr. Library of Veterinary Medicine, North Carolina State University–Raleigh; **Caitlin Ann Pike,** Graduate Assistant to the Dean, School of Library and Information Sciences, North Carolina Central University–Durham; **Kristine M. Alpi, AHIP,** Director; **Elisabeth Whitman,** University Library Technician; William Rand Kenan, Jr. Library of Veterinary Medicine; **Suzanne Kennedy-Stoskopf,** Research Professor, Department of Clinical Sciences, College of Veterinary Medicine; North Carolina State University–Raleigh
Background: A One Health collaborative seminar series for spring 2012 provided a range of topics representing investigations in the three areas comprising One Health: human, environmental, and animal health. We hypothesized there was more open access to human health articles in biomedical journals and environmental health articles than to articles in animal health or other subjects.
Methods: A veterinary librarian translated each seminar topic into a search strategy, using seminar reviews on the course blog to assist with keyword selection. After consulting with the course co-coordinator to confirm search strategy, the librarian searched across a group of databases relevant to One Health, limiting results to journal articles from 2011–2012. Results for each of fifteen topics were examined for overlap, and each unique article was described in terms of database coverage. Two independent investigators assigned the article to a broad subject area: human, environmental, or animal health, all, other, or a combination of two of the three subjects. Then they assigned a subject to each unique journal, using the same categories. Indexing coverage and full-text access were found for each journal in Ulrich's or the journal website, then analyzed for the broad subject categories.
Results: Searches retrieved 2,692 unique articles from 1,140 journals. CAB Abstracts indexed 564 (49%) journals, compared with PubMed (31%), Web of Science (28%), and BIOSIS Previews (25%). Only 76 (7%) journals dealt with all of One Health; remaining subjects assigned were: human health 489 (43%), environment 171 (15%), animal health 140 (12%), and other or a combination of 2 of the subjects 264 (23%). Of 409 journals with more than 1 article, 86 (21%) provide open access varying by category: 25% for human (38/152) and other (10/40), 19% for animal (13/67) and all (8/41), and 13% for environment (9/67).
Conclusions: The 409 journals with more than 1 unique article represented 1,961 (73%) of the articles retrieved, but 731 additional journals had a single citation, showing the breadth of One Health literature. Findings from the subgroup of journals found low rates of open access but confirm that open access to human health journals is higher than animal health journals as hypothesized. Environmental journals did not have as much open access as anticipated. Advocacy to authors publishing in high article count journals like EcoHealth (79 citations) that do not provide open access is crucial to improving access to One Health knowledge.

285

Peer Review of Literature Search Strategies: Does It Make a Difference? Δ

Carolyn Spry, Information Specialist; **Monika Mierzwinski-Urban,** Information Specialist; **Danielle Rabb,** Information Specialist; Information Services, Canadian Agency for Drugs and Technologies in Health, Ottawa, ON, Canada
Objectives: Peer review is an integral part of scientific research. For information specialists, peer review feedback is a way of validating our processes, especially search strategies. The objective of our study is to determine whether the peer review of search strategies has an effect on the number and quality of articles included in the final reports of rapid response projects.
Methods: Fifty peer-reviewed database search strategies for rapid response reports related to health technology devices and pharmaceuticals were randomly selected. For each strategy, the pre- and post-peer-review searches were run and the search results were compared. Any extra articles captured solely by the

peer-reviewed searches and included in the final report were identified and evaluated using Sackett's level of evidence pyramid.
Results: An analysis of fifteen of the fifty randomly selected strategies has been completed to date. Eight of the fifteen peer-reviewed searches retrieved a total of twenty-six articles (not captured by the pre-peer reviewed searches) selected for inclusion in the final reports. Of these twenty-six articles, twenty were included in the body of the final reports. They consisted of three systematic reviews, three narrative reviews, and fifteen non-randomized studies. The five remaining articles were included in the appendixes of three of the reports. The remaining seven peer-reviewed searches (of the fifteen rerun to date) did not capture any new articles selected for inclusion in the final reports.
Conclusions: These preliminary results suggest that peer reviewing literature search strategies improves the retrieval of relevant documents.

297
An Analysis of a Consumer Health Partnership between Academic and Public Libraries Δ
Nakia Joye Woodward, Senior Clinical Reference Librarian; **Rick Wallace, AHIP,** Assistant Director; Quillen College of Medicine Library, East Tennessee State University–Johnson City
Objectives: The purpose of this presentation is to analyze a statewide consumer health training program that involved a partnership between academic and public libraries. The project was conducted from 2004–2010. Over 250 participants from public libraries received MLA's Consumer Health Information Specialization Level 1 certificate as a result of the project.
Methods: Participants from the public libraries were interviewed either individually or in small groups. Thoughts on the classes, their experience with consumer health information, and MedlinePlus as a product were elicited from the participants. Their observations were recorded. The findings were analyzed, and dominant themes were identified.
Results: The motivation behind this effort was reports that the first place people with a new diagnosis go for information is the public library. Anecdotal evidence shows that the participants enjoyed the classes and felt empowered by the training. Many expressed interest in continuing training.
Conclusions: Public libraries are valuable partners for medical librarians. We wanted to look for evidence to see if there was any value in this project in order to know whether to repeat it in the future or whether to promote it as a model to other geographical areas.

301
Role of Medical Librarians: Professional and End User Perceptions in a Single Institution: An Observational Study Δ
Medha Vasant Joshi, Head, Digital Library, Tata Memorial Hospital, Mumbai, India
Objectives: What are our roles in a changing environment? What is professional perception and what is the expectation of end users?
Methods: Literature in the library and information science field has reported several studies about user information needs and the role of librarians. Some systematic studies have also shown the expanding role of medical librarians. A survey to study their perception would be conducted, but how do end users perceive us or what do they expect form us as professionals is also the question we must try and answer. An institutional feedback form led to the organization of seminars where one session was devoted to panel discussion by end users telling us and discussing issues where support from professionals is expected. Three seminars were conducted to date in 2007, 2008, and 2010 on a series of knowledge resource management (KRM). The panel discussions was noted and incorporated in a report to the director of the institute. The contents were studied to observe their perceptions and expectations.
Results: The seminar reports have shown that end users do need support in filtering information and help keeping them up to date. They expect information analysis along with collection and dissemination. They also need help in information skills and need tailor-made tutorials to meet the different needs of categories of end users with different literacy skills and domain expertise. Another need the reports bring to the fore is integration of various resources with in-house generated resources.

305
Using a Common Read to Improve Health Literacy
Cindy Logan, Librarian, Undergraduate and Community Services, Hale Library, Kansas State University–Manhattan
Objectives: Kansas State University has a common read program. Two librarians from the undergraduate and community services department partnered to go into the classroom to discuss the health and multicultural disparities in the book. It was discussed that this particular book, *The Immortal Life of Henrietta Lacks,* would provide book clubs an opportunity to discuss the same content.
Methods: Kansas State University provides the common read book to all incoming freshman. Instructors throughout campus are encouraged to integrate the book into the class curriculum. Two first-year seminar instructors approached two undergraduate and community services department librarians to lead class discussions on the health and multicultural components of the book. The first instructional step was the creation of a LibGuide to provide additional resources for the students. The health component focused not only on the life of Henrietta Lacks, but also on the changes seen in the medical profession due to her treatment. Due to universal interest of the book, these techniques and resources can be shared with public libraries to create a partnership for book clubs or in similar settings.

309
Collaborating with Campus Information Technology to Test Discovery in Two E-Textbook Readers among Health Sciences Students and Faculty Δ
Ann Whitney Gleason, Head, Systems, Health Sciences Library; **Tania Bardyn,** Director, Health Sciences Library, and Associate Dean, University Libraries; **Joanne Rich,** Information Management Librarian; **Leilani A. St. Anna, AHIP,** Information Management Librarian; **David Tolmie,** Senior Computer Specialist; **Mary McDonald,** Library Specialist; Health Sciences Library; **Peter Wallis,** Information Technologist, Learning Technologies; **Cara Giacomini,** Research Manager, Academic and Collaborative Applications; Information Technology; **Michael Campion,** Director, Academic and Learning Technology, Academic Affairs, School of Medicine; University of Washington–Seattle
Objectives: In the current environment of electronically available academic content, e-books are no longer simply being read linearly but being used for information discovery. Students are also looking for tools to help in this information discovery process and to improve their e-book reading experiences. This poster describes the University of Washington (UW) Health Sciences Library's (HSL's) proactive collaboration with the UW Informa-

tion Technology (IT) Department to inform the campus-wide adoption of an e-text platform from a usability and information discovery perspective.
Methods: The UW School of Medicine (UW SOM) selected two e-textbook reading methods for testing. Concurrently, an IT initiative evaluated the feasibility of adopting a campus-wide e-textbook program. HSL librarians, recognizing the opportunity to exercise our role as information experts and our liaison relationships with students and faculty, established an e-text pilot project. We gathered information about e-book platforms licensed by the library and data from SOM and campus IT projects. The library and SOM reviewed SOM 1st and 2nd year required textbooks and identified missing titles to purchase. Students enrolled in several SOM courses will undergo live testing of e-textbook reading solutions. A survey of students involved in the campus-wide IT pilot program will be completed. We anticipate the findings will be useful to librarians and IT involved in the discovery layer of e-textbooks and exposing library resources.
Results: Students demand online access to resources, but e-resources access is cumbersome and funding structures prohibitive. Students want more from e-books than just linear textual reading. Discovery and ability to annotate are important as well. Student learning outcomes may be affected by student aversion to inadequate technology, resulting in faculty reluctance to use new methods of providing materials online. We anticipate the complete project findings will be useful to librarians and IT involved in the discovery layer of e-textbooks and exposing library resources.
Conclusions: The e-textbook market is constantly changing. E-book vendors have widely different online interfaces and purchasing models. Vendors are increasingly adding information discovery tools to their online reading interfaces. Licensing restrictions and prohibitive costs place limitations on the number of students who can access textbooks. In this volatile environment, librarians have a unique role in keeping up with the technology, informing faculty and administrators, and serving as advocates with vendors. Further study is needed before a feasible campus-wide or departmental implementation of e-textbooks can be recommended.

310

Trends and Impact of Information and Communication Technologies (ICTs) on Biomedical Information Centres and Libraries (ICLs) in Western India Δ

Surya Nath Singh, Group Leader, Information and Library Services, and Information Officer, Library, National Institute of Virology, Pune, India; **Avani Shah,** Ex-Librarian, Central Library, B. J. Medical College, Ahmedabad, India
Objectives: to know the availability; to assess the use, awareness, and impact of various information and communication technologies (ICTs) on biomedical information centres and libraries (ICLs); and to suggest various ways and means to solve their problems in order to satisfy challenging and changing needs of the users due to ICTs.
Methods: For collection of data, a multi-method approach is adopted, while a stratified sample survey was used and questionnaire (with 47 questions) as a main tool, surveying 144 biomedical ICLs. The questionnaire for biomedical ICLs in western India was structured with multiple choices and open-ended, designed questions. A pilot study was carried out to structure the questionnaire, and the final questionnaire was sent to all 144 biomedical ICLs of western India (response rate: 56.25%). The data collected were interpreted, classified, and transferred into coded form, entered into Microsoft Access and transferred in Statistical Package for Social Sciences (SPSS, version 17). Descriptive analysis was carried out through computing frequencies, means, and total responses for impact of each variable. Descriptive statistics were employed and data presented in tables, graphs, and figures.
Results: The findings revealed that computer facilities are available in all the 81 (100.00%) responding biomedical ICLs of western India, but uses are not very satisfactory; followed by availability of e-journals in 60 (74.07%) ICLs; 55 (67.90%) ICLs have online databases; 49 (60.49%) ICLs have CD-ROM databases; 41 (50.62%) ICLs provide online public access catalog (OPAC) services to their users; 41(50.62%) have multimedia technologies; only 23 (28.40%) ICLs have e-books whereas 60 (74.07%) ICLs provide print-out services to the users. Television is the most popular (37 [45.68%]) among communication channels in responding biomedical ICLs.
Conclusions: The study shows that ICT use in health care, education, and research is growing, but there are barriers too. Implementation is difficult and suggests some depth studies based on it with proper implementation model. Based on the major findings, the study concluded that there is favorable impact of various ICTs on library and information services India in general and library and information science profession in particular, especially biomedicine, where everything is related to life and death and pinpointed, expeditious, and exhaustive services are necessary.

Index

I

J

K

L

M

N

O

One Health Abstracts

A Supplement to the *Official Program*

www.mlanet.org/am/am2013/pdf/mla13_abstracts.pdf

MLA is a nonprofit, educational organization with more than 4,500 health sciences information professional members worldwide. Founded in 1898, MLA provides lifelong educational opportunities, supports a knowledgebase of health information research, and works with a global network of partners to promote the importance of quality information for improved health to the health care community and the public.

MEDICAL LIBRARY ASSOCIATION

Quality information for improved health