



TRANSFORMATIONS A-Z
MAY 19-24, 2006
PHOENIX, AZ
MEDICAL LIBRARY ASSOCIATION
www.mlanet.org



MLA '06 Abstracts

A Supplement to the *Official Program*

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SECTION PROGRAM 1: SUNDAY, MAY 21

Theme: Collections/Resources

2006 National Program Committee, Collection
Development and Public Health/Health Administration
Sections, and Outreach SIG

Gathering Health Data in E-Environments

2:05 p.m.

The National Library of Medicine's AllPlus Search

Tamas E. Doszkocs, computer scientist, Specialized Information Services, National Library of Medicine, Bethesda, MD

Objective: This presentation and online demo will report on the development of an advanced meta-search and clustering engine that provides simultaneous access to all National Library of Medicine (NLM) databases to facilitate the efficient discovery of the library's rich and diverse information resources by the public

Methods: NLM provides access to more than fifty databases that contain information in all areas of biomedicine and health care. The AllPlus Search prototype offers a single Web interface to all fifty-six NLM databases. The system maps search queries to Medical Subject Headings and creates an automatically generated table of contents for focused drill-down and intelligent query modification. Sophisticated natural language processing techniques and "artful intelligence" heuristics are employed in analyzing, merging and re-ranking the search results returned by the multiple NLM retrieval systems. AllPlus also supports specialized spellcheckers, multimedia retrieval, and limited question answering.

2:25 p.m.

Teaching Evidence-based Practice to Nurses in Rural Areas

Jenny L. Garcia, AHIP, UWIN Plus/medical reference librarian, Coe Library, University of Wyoming Libraries, and **Karen N. Ouzts**, coordinator, Leadership Education to Advance Practice Special Program, School of Nursing, University of Wyoming-Laramie

Objective: To determine if a class on evidence-based practice (EBP) will improve practicing nurses' understanding of the EBP process and resources available to them and improve literature searching techniques.

Methods: Two classes on EBP were conducted. The first class was conducted for public health nurses and workers over three days, the second for hospital-based nurses in three four-hour classes over three months. None of the participants have access to medical libraries in their facilities. At the start of the first class, the participants were requested to complete a pretest to assess their understanding of the literature searching process and a survey to determine current information-seeking behavior. At the conclusion of the third class, the participants were requested

to complete the posttest, which is identical to the pretest, to determine if a change in understanding of the literature searching process occurred.

Results: Twenty-five participants completed a quantitative questionnaire to determine current access to resources and methods of seeking information. Preferred ways to find work-related information varied. Of these methods, most participants (56%) felt very confident in information found on professional organization Websites. Forty-four percent felt very confident in electronic article databases, and 28% felt very confident in the content of Websites found with Google or another search engine. When asked which source would be most useful when finding comprehensive information on a specific topic, Google and electronic databases were ranked equally above other sources of information. Twelve participants completed both the pre- and posttests. This test contained open-ended questions, and answers were qualitative. While posttests indicated that a higher number of participants would seek information from databases, it was evident that professional organizations are highly regarded as a primary source for practice guidelines.

2:45 p.m.

Public Health Practitioners Information Access and Use

Claire Twose, health practice and research librarian, and **Kathleen Burr Oliver**, associate director, Communications and Liaison Department, William H. Welch Medical Library; **Patricia Swartz**, graduate student, Division of Health Sciences Informatics; Johns Hopkins University, Baltimore, MD; and **Edward Bunker**, program director, College of Health Sciences, American University of Armenia, Yerevan, Armenia

Purpose: This pilot project in two county health departments is designed to increase understanding of the information needs and use of public health practitioners and explore new approaches for meeting them.

Setting and Participants: From June 2005 to May 2006, the library offered a course in public health information resources to eighteen public health practitioners in two counties. Along with training sessions, they received access to the library's licensed electronic resources and public resources through an individually tailored Web portal. A professional librarian provided consulting services, and participants were shadowed during daily work activities. Participants included health officers, epidemiologists, nurses, and health planners.

Evaluation Method: We will combine usage statistics from the Web portal, self-reported needs, and observational data collected during training and shadowing of participants. Analysis of these multiple data sources will provide a uniquely in-depth picture of this public health workforce's information needs and use and test the feasibility of an online portal for access to licensed information by public health practitioners. The inclusion of licensed resources in this project contributes needed data for proposing new models of information access for public health practitioners who may benefit from more centralized licensing and provision of electronic information.

Theme: Education and Outreach

Dental Section

The Future of Professional Health Care Education

2:00 p.m.

The Future of Professional Health Care Education

Jack Dillenberg, dean, Arizona School of Dentistry and Oral Health Mesa Campus, AT Still University of the Health Sciences, Mesa, AZ

Trends in the health care environment such as increased technology, interdisciplinary teams, quality improvement, and an emphasis on evidence-based practice are causing changes in how health care professionals are educated. This program will feature speakers who have been involved in establishing new schools with curriculums that emphasize innovations such as computer-based education and community-based learning.

2:45 p.m.

The Future of Professional Health Care Education

Thomas McWilliams, associate dean, Bio-Clinical Sciences, and clinical professor, Emergency Medicine and Family Practice, Mesa Campus, AT Still University of the Health Sciences, Mesa, AZ

Description: Trends in the health care environment such as increased technology, interdisciplinary teams, quality improvement, and an emphasis on evidence-based practice are causing changes in how health care professionals are educated. This program will feature speakers who have been involved in establishing new schools with curriculums that emphasize innovations such as computer-based education and community-based learning.

Educational Media and Technologies and Public Services Sections and Libraries in Curriculum SIG

Integrating Technology into the Health Sciences Curriculum

2:05 p.m.

Evidence-based Medicine: Transforming Technology for Teaching at Two Campuses

John D. Jones Jr., reference and education librarian, and **Tanya Feddern, AHIP**, reference and education services librarian, Louis Calder Memorial Library, University of Miami Miller School of Medicine, Miami, FL, and **Susan K. Setterlund**, assistant university librarian, Department of Biomedical Science, Florida Atlantic University–Boca Raton

Purpose: This paper reports on the use of existing technologies such as Blackboard, video-conferencing, recorded lectures, wireless networking, and email communications and experimental applications such as iPod casting to provide evidence-based medicine (EBM) instruction in the “Doctoring Course” between two campuses.

Setting: The urban teaching medical campus hosts 150 medical students per class. The suburban teaching medical campus hosting 32 medical students per class.

Description: When the universities partnered, no one doubted that technology would play a major role in building and providing remote access to instruction, materials, and experts.

The library was already active in leading EBM instruction in a competency-based curriculum to first- and second-year students and integrating this instruction into organ system and other curriculum components. Extending current and adding new technologies was a natural extension of the existing EBM curriculum. Most lectures were video-recorded for playback and review. The ability to beam live lectures between campuses was added. Blackboard components supplemented the face-to-face experience and now provided an easy mechanism for sharing common work, handouts and online instruction. Creating an email discussion list for the EBM instruction team made it easy for students to contact us the team and get quick appropriate assistance.

Conclusions: Incoming first-year medical students have already adopted the multiple modalities of technology and communication. Many of these technological advances were used in their undergraduate education and from their perspective, using these technologies is somewhat expected. Faculty can be slow to adopt new technologies that have learning curves or require effort beyond that already given. The collision/fertilization of traditional education expectations with the ever-evolving technological phenomenon is not and may never be over. The synthesis from faculty and student interaction and collaboration provides the impetus to explore new technologies and incorporate them into the curriculum.

2:25 p.m.

Transforming and Integrating 21st Century Educational Technologies: Librarians Respond to Faculty Needs

Jeanne M. Le Ber, education librarian, Education Services, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

Objective: This paper describes the leadership role librarians took to assess, support, and instruct health sciences faculty in their transition from antiquated classroom spaces to a new state-of-the-art interdisciplinary education facility equipped with current instruction technologies.

Methods: The recently completed health sciences education building opened with the start of the 2005 academic year; this facility serves the school of medicine and colleges of health, nursing and pharmacy. The library played a significant role in the design and functionality of the facility and is now responsible for managing the classrooms and classroom technology and providing faculty support. Proactively, the library’s education team conducted an online faculty needs assessment prior to the start of the semester to determine faculty readiness for using the new technology in the facility. Results from this survey were used to develop a training program that includes regularly scheduled sessions along with individual consultations. New to the library’s education agenda, sessions cover the use of the standardized classroom control system with various high-tech presentation devices, tablet PC, and a Web-based course management tool.

2:45 p.m.

Transforming Library Professional Development and Outreach Through Podcasting

Jane L. Blumenthal, AHIP, associate director, and **Ivonne Martinez**, education services associate, Dahlgren Memorial Library, Georgetown University, Washington, DC; **Theodora Bakker, AHIP**, NLM associate fellow, Gustave L. and Janet W. Levy Library, Mount Sinai Medical Center, New York,

NY; and **Brian Boston**, academic technology and Internet development coordinator, Center for New Designs in Learning and Scholarship, Georgetown University, Washington, DC

Objective: The purpose of this project was to assess the usefulness of iPods and podcasts for library professional development and for delivering content, such as medical school course lecture audio recordings, to faculty and students.

Setting/Participants/Resources: An academic health sciences library. The project was proposed by the NLM associate fellow, who selected a group of librarians and technologists to participate in the project and purchased six iPods and necessary accessories. The library's existing streaming server and Web platform were initially used to distribute content.

Description: Podcasts offer a portable format for information that can be accessed during commuting, meals, workouts, and other times when cognitive resources are available but standard reading or Internet accessibility is difficult. Podcasting also adds another dimension to knowledge management. Staff tested the feasibility of delivering course lecture content via podcasting and implemented podcasts of continuing medical education (CME) sessions. The popularity of these devices adds urgency for librarians to become familiar with the technology and exploit potential benefits for information dissemination.

Results: Most librarian participants found few podcasts for library professional development but did find useful podcasts pertaining to technology, education, and general news. However, the potentially most useful podcasts were the digital audio files of the first- and second-year medical school lectures and of the medical informatics grand rounds presentations. The iPod project successfully explored if and how the technical requirements of standard podcasting (the grand rounds) and secure podcasting (medical school lectures) could be met by the university and medical center library. Dahlgren Library was successful in podcasting the audio of the grand rounds and achieved a level of secure podcasting equivalent to the existing level of secure access to the medical school lecture audio files. However, in the process, staff also learned the costs in money, time, and equipment necessary to support this activity and the political issues involved in securing faculty consent for podcasting.

3:05 p.m.

Integrating Technology in a Renovated Library Curriculum

Rikke S. Ogawa, AHIP, information services librarian, and **Brian W. Tobin**, technology integration specialist, Lane Medical Library and Knowledge Management Center, Stanford University Medical Center, Stanford, CA

Objective: To integrate teaching technology into the medical doctor (MD) information literacy curriculum to encourage student-teacher interaction, move away from didactic sessions, and promote student-driven computer learning.

Methods: Lane Medical Library at Stanford University Medical Center is an academic medical library serving a school of medicine, two teaching hospitals, and many remote faculty at affiliated hospitals. Information literacy instruction is embedded throughout the required MD curriculum. Over the past three years, the library has participated in the school-wide curriculum reform initiative. Concurrently, the library, also responsible for managing the classrooms, has renovated several spaces to create technologically advanced classrooms suitable for small-group and large-group teaching. The library's previous information

literacy instruction took place in the library's computer lab and was lecture format with some individual work on the computer. Seeking to create better teaching and learning experiences, the library looked toward existing educational technology, specifically audience polling and desktop sharing, to engage and instruct students in team-based, active learning sessions.

Results: The library and school of medicine faculty found the polling technology and desktop sharing software easy to integrate in daily classroom activities. Audience polling generates discussion and problem solving among students seamlessly during instruction. Librarians use desktop sharing software, such as Apple Remote Desktop and SynchronEyes, to allow students to direct class search exercises and to lead discussion on database features. These technologies have negligible learning curves for instructors and students but require more technical support to guarantee reliability. This paper will cover the successes and pitfalls of integrating technology into an interactive information literacy curriculum, review feedback from students about the sessions, and will give the MLA audience the opportunity to use some of the technology implemented in these classes.

Conclusions: Audience polling and desktop sharing technologies can enhance learning sessions by encouraging student participation and giving instructors the ability to gauge student comprehension in real-time.

Theme: Healers and Healing

History of the Health Sciences and Pharmacy and Drug Information Sections and Lesbian, Gay, Bisexual, and Transgendered Health Sciences Librarians and Mental Health SIGs

Between "Madness" and Mental Health: Changing Perceptions and Treatment.

2:05 p.m.

Changing Measures of Madness: The Case of Winnie Ruth Judd

Sunny L. Worel, AHIP, great niece of Hedvig Samuelson and Medical Librarian, New Product Development, Thomson West, St Paul, MN

Background: One of the most notorious and controversial crimes in the history of Phoenix, AZ, was the case of Winnie Ruth Judd. The crime left Judd's chums Agnes Ann LeRoi and Hedvig Samuelson shot, dismembered, and shipped in trunks to Los Angeles in October of 1931. The court initially found Judd guilty of this crime, acting alone and in sound mind. She was sentenced to hang but was declared insane in time to save her from the gallows. She spent much of her life at the Arizona State Hospital for the Insane, escaping often, sometimes even for years. Judd's true story has merged with folklore in the historical record of Arizona.

Analysis: Judd's mental condition was the subject of much debate during her trials, appeals, and escapes over the forty years she fought to regain her freedom. What evidence is there to substantiate Judd's mental health? What measures were used? Records from the Arizona State Archives, Arizona Historical Society, Clements Library (University of Michigan), tabloids, and newspapers from around the country weave together a strange tale of a woman attempting to recapture a normal life.

Results: Cultural elements of the 1920s to the present color the picture of the mental health of Winnie Ruth Judd. Particular situations in her fight to regain her freedom called for different strategies, blurring much of the evidence for or against Judd's sanity.

2:25 p.m.

Societal Perceptions of Anorexia Nervosa: From the Sainly to the Scientific

Lee Vucovich, AHIP, instructor and assistant director, Reference Services, Lister Hill Library of the Health Sciences, University of Alabama–Birmingham

Objective: To trace society's changing perceptions surrounding anorexia nervosa, a serious condition in which a person refuses to maintain body weight, over time. Although anorexia nervosa is currently described a mental illness, "holy anorexia," was revered during the Middle Ages. Today, biomedical and neurobiological studies offer new insights which could transform current perceptions of anorexia nervosa.

Methods: The media seems fascinated with anorexia nervosa. Currently described as a mental disorder, anorexia Nervosa has serious physical symptoms and a long term mortality rate of 5%-10%. Although anorexia nervosa was first identified in the late 19th century, fasting to the point of self-starvation was described in biographies of several saints from the Middle Ages. A series of case studies drawn from the psychological and medical literature and popular press will illustrate society's changing perception of this condition. Contemporary perceptions of the cultural and emotional basis for anorexia nervosa will be included. A review of current medical and psychological literature will provide a summary of neurobiological and biomedical investigations focusing on serotonergic dysregulation, neuropeptides, brain imaging, and the neuroscience of feeding behavior. Such research should guide development of new pharmacological treatments and new understanding of the etiology of anorexia nervosa.

2:45 p.m.

Implications for Librarianship Resulting from Deinstitutionalization

Bradley W. Bishop, archivist, Florida Mental Health Institute Research Library, Louis de la Parte Florida Mental Health Institute, Tampa, FL

Objective: Prior to the discovery of mental illnesses' somatic base, involuntary commitment occurred. Stigma developed because of the separation of mental health's treatment facilities and funding mechanisms during institutionalization. The deinstitutionalization movement in mental health affects libraries' collection development and training. How have libraries been instrumental in the dissemination of mental health information? In addition, what steps can they take to reduce the stigma of mental illness in their own libraries?

Methods: This narrative will search for examples of special accommodations in libraries for users with mental illnesses, who may or may not be homeless. In addition, a telephone survey of both public and medical libraries' Americans with Disabilities Act (ADA) librarians, will inquire about specific library guidelines on the treatment of users with mental illnesses, who may or may not be homeless. In addition, the survey will include questions about the libraries efforts to educate the public about mental health. Prior to the telephone survey, the researcher will perform a review of each library's catalog to determine each library's

holdings on mental health and related issues. If the library's information is found to be outdated, the telephone survey will include questions about how this void will affect each library's future collection development.

Results: A search of the catalogs of two public libraries (one rural and one urban) revealed the rural library, where a state mental hospital recently closed, contained a greater percentage of items with subject headings related to mental illnesses and depression than the urban library.

Conclusions: The impact of deinstitutionalization is only one possible factor affecting the discrepancy of items. A lack of effort to educate and inform the public about mental health was found in both public libraries, but stigma alone cannot explain this. The libraries serve the entire public and small user groups inevitably remain underserved. The rural medical library contained only Internet access for physicians. Conversely, the urban medical library contained many print and electronic items for physicians. Both libraries served physicians exclusively. Although the number of mental health queries was not available, the library in the urban county held more items related to mental health.

3:05 p.m.

Schizophrenia: Emerging from the Darkness

Clista Clanton, Web development and education librarian, Baugh Biomedical Library, University of South Alabama–Mobile

Objective: While the term schizophrenia is less than 100 years old, written documents have traced accounts of schizophrenia as far back as ancient Egypt. Over 100,000 new people in the United States alone are diagnosed with schizophrenia each year, and it ranks among the top 10 causes of disability in developed countries worldwide. Sadly, however, this has been one of the most misunderstand of diseases.

Methods: This poster will look at societal perceptions of schizophrenia throughout history, key research that has firmly established schizophrenia as a disease of the brain, and highlight some of the promising new pharmacological treatments that have made such a tremendous difference in the lives of both patients and their families.

3:05 p.m.

The Retreat at York: Providing a Transformation to Humane Treatment of the Mentally Ill in the 19th Century

Joan M. Stoddart, AHIP, deputy director, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

Objective: This poster will examine the role of the Retreat at York, an English asylum which was founded in 1796 by the York Society of Friends (The Quakers) led by William Tuke. It is credited with revolutionizing the attitude and treatment for the mentally ill in England from cruelty, patient restraint, and filth to one of dignity, decency, and cleanliness.

Methods: The York Retreat can be credited with transforming the treatment of the mentally ill by utilizing what was called "moral treatment," which acknowledged the connection between a sound mind and body, reflecting the Quaker belief in the importance of inner discipline and control. It largely abandoned the practices common to the day such as chaining, beating, purging, and bleeding. Instead, the Retreat at York offered clean and comfortable rooms and activities including daily chores and outdoor exercise. It provided a homelike atmosphere with surrounding grounds that emphasized orderliness and serenity

and an opportunity to heal. A treatise titled *A Description of the Retreat, an Institution near York for Insane Persons* was written in 1813 by Samuel Tuke and is thought to be the first full-length written account of a mental institution.

Nursing and Allied Health Resources and Hospital Libraries Sections

Get Magnetized: Magnet Recognition, Libraries, and Excellence

2:05 p.m.

History of Magnet Hospitals

Richard Barry, AHIP, librarian and archivist, American Nurses Library, American Nurses Association, Silver Spring, MD

Description: Richard Barry, AHIP, will open the presentation with a brief overview of the original study and research conducted by the American Academy of Nursing of characteristics leading to the recruitment and retention of nurses from the early 1980s. This study, combined with other factors, led the American Nurses Credentialing Center to launch an ambitious program in 1990 to promote and recognize hospitals based on standards of nursing care and nursing service administration. A review of developments from the past fifteen years will show the growth of the Magnet Recognition Program.

2:25 p.m.

The Elements of Magnetism

Christina Joy, senior magnet program specialist, American Nurses Credentialing Center, Silver Spring, MD.

Description: Christina Joy will present the current process and procedures that are involved with the Magnet Recognition Program. In her role as senior magnet program specialist, she is involved with the ongoing research and evidence need to maintain the high quality of the program as well as working with those facilities that apply for Magnet recognition. A question and answer time after the panel presentation will feature Joy.

2:45 p.m.

Magnet Recognition in the Real World: A Panel Discussion

Jan Baum, coordinator and medical librarian, John C. Lincoln Health Network, Phoenix, AZ; **Sally Harvey, AHIP**, director, Learning Resources and Continuing Medical Education, Banner Good Samaritan Medical Center, Phoenix, AZ; **David Howse**, assistant librarian, Information Services, Arizona Health Sciences Library, University of Arizona–Tucson; **Dorice L. Vieira**, associate curator and coordinator, Search Services, Ehrman Medical Library, New York University School of Medicine–New York; and **Pamela Sherwill, AHIP**, librarian, College of Nursing, University of Florida–Gainesville

Description: The panelist will each share their organization's experience with the Magnet recognition process, which includes lots of documentation and research. Panelist will share how much or how little they were involved in the process, stories, tips, insights, and learned experience. Also, attendees will hear how Magnet status has changed the information needs of the nursing staff in regard to research and evidence-based health care. Genuine professional testimony will be given.

Veterinary Medical Libraries Section

Transforming Veterinary Dentistry Through Education and Practice

2:00 p.m.

Dentistry in Zoo Animals

Chris J. Visser, Aid Animal Dental Clinic, Scottsdale, AZ.

Description: Various aspects of zoo dentistry will be discussed including the occurrence of fractured teeth in zoo animals and endodontic techniques to treat them. Other topics of discussion will include protocols for pre-anesthesia, inducing and maintaining general anesthesia, and post-anesthetic recovery.

Theme: Leadership and Professional Development

Hospital Libraries, Corporate Information Services, Federal Libraries, Health Association Libraries, and Veterinary Medical Libraries Sections and Assessment and Benchmarking and Department of Veterans Affairs Librarians SIGs

Demonstrating Our Value: Benchmarking, Return on Investment, Cost Benefit Analyses

2:05 p.m.

If You Build It, Will They Come? Marketing Through Education

Mary F. Prottzman, AHIP, information services librarian, Library Program, Department of Veterans Affairs Central Office, Washington, DC, and **Dianne Jones**, library technician, Library Service, Veterans Affairs Medical Center, Jackson, MS

Objective: This paper will report on educational, marketing, and organizational interventions that increased the utilization of electronic journals.

Methods: A medical library staffed by 2 full-time employees supports a hospital located in the southeast with 1,700 employees and 140 residents. While the library has provided hundreds of electronic journals through EBSCO Host and MD Consult databases for the past 4 years, electronic journal utilization was minimal. Six months ago, the library staff reorganized the electronic journals to provide better access by launching a Web page and by implementing PubMed Linkout and a commercial electronic serials manager. An intense marketing program combined with tailored educational interventions followed. The organization and development of the marketing and educational efforts will be addressed as will the return on investment (ROI) to the institution in terms of clinical staff time savings, enhanced resource allocation for periodical purchases, and improved customer satisfaction.

2:25 p.m.

Avoiding a Reduction of Force: Statistical Justification in a Hospital System

Cheryl M. Suttles, manager, Medical and Community Health Library, Wann Langston Memorial Library, INTEGRIS Health, Oklahoma City, OK

Objective: To indicate the type of information that reflects the work being done in the primary hospital library of an eleven-hospital system. To show how statistics can be translated into a

document to reflect the amount of work in a hospital library.

Methods: In a system-wide effort to cut costs, the library was asked to provide data justifying 3 full-time equivalents (FTEs). This request was made because the library had been identified for a reduction of 0.5 FTEs. Knowing that a reduction in staff would seriously compromise the library's ability to provide timely service to health care professionals in the hospital and system, statistical data collected on an annual basis was developed into a chart showing the amount of time that each service required. This chart actually showed that the library needed additional staff to maintain the current service level.

2:45 p.m.

Using Lean Methodologies to Gain Efficiencies in High-volume Library Processes

Susan Schweinsberg Long, AHIP, medical library director, Medical Library, Virginia Mason Medical Center, Seattle, WA

Objective: This paper reports on the use of lean tools, methodologies, and concepts to enhance the delivery of knowledge-based information in the organization.

Methods: In 2001, our organization adopted the Toyota Production System as its management method. All departments were challenged to identify their main products, flow, and processes. Medical library staff received instruction on lean principles and began to apply these to all library operations. Staff suggestions are the basis for improvements in our processes. Initially, the medical library reorganized space using 5S concepts. Value stream mapping was used to analyze key products and process flows, identify value-added components, eliminate waste, decrease turnaround time, and reduce errors or defects. High volume library processes including document delivery, new book processing, and electronic journal access were the first studied. Ongoing improvement strategies include developing standard work, measuring performance in all processes, maintaining shared agreements, and trying out improvement ideas in rapid plan, do, study, act (PDSA) cycles

Results/Conclusions: All staff participate in evaluating library processes, measuring cycle times and process steps through direct observation. Management gains are evaluated according to reductions in time, travel, and inventory required for any given process. Lean is a journey and our processes continue to evolve, change, and improve.

3:05 p.m.

Code Yellow: Library 9-1-1

Carole M. Gilbert, AHIP, FMLA, director, Helen L. DeRoy Medical Library, and **Alexia D. Estabrook, AHIP**, information services librarian, Helen L. DeRoy Medical Library, Providence Hospital, Southfield, MI

Objective: This paper describes how hospital librarians used a phone call from an emergency room (ER) nurse to demonstrate the value of the library by identifying toxic substances and providing treatment information for patients exposed to potentially hazardous materials. It describes how further collaboration with the emergency department (ED) resulted in recognition by hospital administrators that librarians are an integral part of the health care team.

Methods: In 2004, a call received from the ED requested information on treatment for a patient exposed to burning PVC pipes. The caller had spent two hours searching without success. In less than ten minutes, a librarian delivered the required

information to the ED. At the debriefing, ED staff complimented the librarians on the quick, accurate information provided and suggested to administrators in attendance that library staff be included on the Hazmat team. The administrators concurred, and the library was added to the team call-out list. A hospital pager was provided so librarians could be alerted when any disaster occurred in the community. To expedite Hazmat searches, disaster procedures were revamped to optimize search efforts, reference sources were expanded with the purchase of a personal digital assistant (PDA) on which WISER was downloaded, and print resources were recataloged for easier access.

Results: ED staff now receive quality information necessary to identify substances and treat patients in just a few minutes as opposed to the two hours or more (or not at all) previously experienced. Hospital administrators are more aware of the library's invaluable contribution to patient care. Library staff has benefitted from increased respect, awareness of services provided, and additional equipment and databases to support these services. Participation in disaster drills allows librarians to hone searching skills seldom used in the normal clinical setting. **Conclusions:** Opportunities for collaboration may occur serendipitously. Librarians should be ready to accept challenges and take advantage of opportunities to showcase their skills and solidify the library's value to the hospital anywhere at any time.

International Cooperation Section

Coordinated Programs or Peer-to-peer: Which Is the Better Model for International Cooperation Between Libraries? A Debate

2:00 p.m.

Coordinated Programs or Peer-to-peer: Which Is the Better Model for Cooperation Between Libraries? A Debate

Lenny Rhine, assistant director, Collection Management, Health Science Center Libraries, University of Florida–Gainesville; **Barbara Aronson**, HINARI Programme director, World Health Organization, Geneva, Switzerland; and **Laura Shane Godbolt**, Consultant, Modernisation Agency, National Health Service, United Kingdom

Motion: This house believes that in supporting health libraries in the developing world peer-to-peer support is a more effective use of your time than coordinated programs. Lenny Rhine and Barbara Aronson will speak in favor of peer-to-peer support, and Laura Shane Godbolt will speak against this type of support.

Medical Library Education Section

Transformations in Progress: Voices of the Next Generation of Medical Librarianship

2:05 p.m.

Creating Pathfinders to Help Chinese Health Consumers Find Quality Information on the Internet

Xuequn Pan, doctoral student, Library and Information Science, University of North Texas–Denton

Background: The Chinese American population is one of the fastest growing populations in the area and is typically underserved in health care because of barriers related to language and culture. There are no formal mechanisms for specifically

addressing the health information needs of the Chinese American population in the area.

Objectives:

1. to determine health information needs of the Chinese American population in the area
2. to develop health information pathfinders based on the determined information needs

Methods: One hundred Chinese American participants who visit local public libraries and Chinese American community centers in the area will be asked to respond to a semi-structured survey that includes questions regarding demographics, Internet usage, and health information needs. The survey will be used to construct a list of health topics and related information needs, and health information pathfinders will be developed based on the constructed list. The pathfinders will be designed to be culturally and linguistically sensitive to the Chinese American population.

Results: One hundred one Chinese American individuals participated in the survey, including 27 males and 74 females in 6 age groups; 91.1% of the individuals held a bachelor's degree or higher; and 90.8% use the Internet daily. Sources for finding health information included the Internet, magazines, television, friends, health care providers, relatives, Chinese newspapers, and public libraries. The main health topics of interest included nutritional information, fitness or exercise information, and information about specific diseases or medical conditions, such as breast cancer, diabetes, and hepatitis B. Based on the survey, three Internet health information pathfinders were developed.

Conclusion: The surveyed Chinese American population is using the Internet to find health information, which shows a need to develop culturally and linguistically sensitive health information pathfinders that address their health topics of interest.

2:25 p.m.

Publication Transformation: Why Authors Choose to Publish in Open Access, Free Full-text Journals

Stefanie E. Warlick, graduate assistant, Health Sciences Library, Education Services, University of North Carolina–Chapel Hill

Objective: In an attempt to identify motivating factors involved in decisions to publish in open access (OA) journals, individual interviews with faculty members at two research universities will be conducted. The interviews will focus on faculty identified as early adopters of OA, free full-text publishing.

Methods: Searches conducted in PubMed and PubMed Central will identify faculty from two institutions who have published works in OA, free full-text journals. The searches will target authors with multiple OA citations during a specified eighteen-month period. Structured interviews will be conducted with the most prolific OA authors at each university. Individual interviews will attempt to determine whether the authors are aware they published in OA journals, why they chose to publish in OA journals, what factors influence their publishing decisions, and what their general attitudes toward OA publishing models are. Interview questions will be based on a review of the literature and consultation with a scholarly communication working group. The interview results will be analyzed to see whether these faculty members have made conscious efforts to publish in OA, free full-text journals and, if so, why.

2:45 p.m.

Provision of Consumer Health Information Services for Low-literate Patrons

Stephanie A. Williams, student, Master's of Science, Library and Information Science, School of Information Studies, Syracuse University, Syracuse, NY

Objective: To create a plan for a public library to provide consumer health information services to the low-literate population in its community developed in collaboration with the target population.

Methods: Library Literature, CINAHL, MEDLINE, and Gale Health and Wellness databases were searched for articles published in the past five years covering the various aspects of providing health information to a low-literate population. This included developing surveys to assess health information needs, collaborating with community groups to administer the surveys and conduct focus groups, collection development, locating and creating easy-to-read print and Internet resources, and staff training. This service is proposed for a public library in a city serving a county with a population of 100,000. The local literacy council estimates that 13% of the population reads at a 5th grade level or below. It is expected that providing this service would result in this group gaining access to health information that aids them in making decisions that result in better health outcomes.

Results: Lower education and income levels are associated with higher illness and death rates. It is proposed that people with low literacy are less informed about medical treatments and are less likely to follow preventative health care measures. A general reference collection does not meet the needs of the low-literate population. The literature emphasized that when planning a library service for a low-literacy population it is important to understand the group's needs. It is recommended that their input be gathered through surveys and focus groups so the services can be matched to their needs. The library could collaborate with community organizations who have established relationships with this population.

Conclusions: Particular attention should be given to designing and delivering health information to this group to ensure that the messages can be understood and implemented. Resources and training are available for those interested in learning how to develop services for a low-literate population.

3:05 p.m.

Needs Analysis at a State Health Department Library: Citation Analysis of Official and Extramural Publications

Melissa L. Rethlefsen, education technology librarian, Learning Resource Center, Mayo Clinic College of Medicine, Rochester, MN.

Objective: To describe the information needs of a state public health agency, compare needs to its library's collection, and evaluate collection development policy accordingly.

Methods: A citation analysis of the Minnesota Department of Health's authored journal articles and official publications from 2002–2004 was conducted. The agency has 3 metropolitan and 9 regional offices, approximately 1,400 employees, and is responsible for public health functions including infectious and chronic disease epidemiology, prevention, and control; chemical and biological laboratory services; restaurant and health facility inspections; state health policy and regulations; and support for local public health. Fifty-six publications fitting the criteria for

inclusion in the study were identified using PubMed and library records. Information on each document's cited references was recorded in an Excel spreadsheet, including reference type, relative age of citation, authorship by agency division, and journal name if applicable. The library's collection and collection development policies (serial-to-monograph ratio, subscriptions, materials retention) were analyzed in reference to the results and correlated with other measures of information use.

Results: As expected, journals were the most heavily cited format: 64% of all citations were journal articles. Most cited materials were between 2 and 5 years old; however, almost 20% of all cited references were over 10 years old. The 897 journal article citations came from 266 different journals. The top-10 cited journals (4% of all titles) accounted for 36% of all citations. Sixty-two percent of journals were only cited once. Of the total journals cited, the library subscribes to 70%.

Discussion: Overall, no large gaps appeared in the library's journal collection. In addition, the library's current policy of keeping public health journals permanently seems appropriate given the range of dates materials were cited; longer retention periods for non-public health titles may be warranted. The collections budget for serials and books reflects the cited use of these materials.

Theme: Research Methods

Research, Consumer and Patient Health Information, and Hospital Libraries Sections

Tools to Assist Underserved Librarians

2:05 p.m.

Developing Retrieval Strategies for a Complex Subject Matter Blend: "Health Disparities"

Erin Braddock, senior operator, West Texas Rural EXPORT Center; **Margaret Vugrin, AHIP**, librarian, Library; and **James Speer**, director, West Texas Rural EXPORT Center, Texas Tech Health Sciences Center–Lubbock

Objective: This project was undertaken to fulfill performance criteria of a research grant funded by the National Institutes of Health, to create an effective strategy for analyzing the world literature on "Health Disparities." Currently no single Medical Subject Headings (MeSH) is sufficient to capture the breadth and depth of information; hedges need to be created, keywords need to be identified and assessed.

Methods: To develop a retrieval protocol, "Health Disparities" resources were identified and searched from May through October 2005. MeSH terms were analyzed, sorted by usage statistics, and assigned weights by subject relevance. Major concepts were categorized, with particular attention to search criteria and subheadings appropriate for publications that, while they might pertain to "Health Disparities," mentioned health disparities neither in the title nor in the body. Retrieval approaches geared to hedges and to keywords were evaluated in terms of (a) efficiency of capture, (b) reliability of identification, and (c) success in resolving ambiguous returns. These findings were used in refinements of the retrieval protocol and in setting up a systematic surveillance reporting utility.

Results: Traditional search methodologies are robust and serviceable to emerging research needs. Where novel subject areas involve cross-cutting issues and where a multidisciplinary framework is necessary to describe sources relevant to those

subject areas, a protocol that combines both hedges and keywords can be helpful.

2:25 p.m.

Logic Models: A Tool for Planning and Evaluating Services

Elizabeth Kelly, associate director, Bernard Becker Medical Library, Washington University School of Medicine, St. Louis, MO, and **Claire Hamasu**, associate director, National Network of Libraries of Medicine MidContinental Region, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

Objective: Logic models can be an essential tool for understanding the impact of current library services and for planning and evaluating new services. Outcomes-based evaluation (OBE) is a process promoted by the Institute for Library and Museum Services and several of the largest not-for-profit funding agencies in the United States. Logic models, a primary tool for conducting OBE, are a required component of many grant applications. Experience in creating, refining, and using logic models to guide programming have shown it to be an invaluable part of the librarian's toolkit.

Methods: The organization adopted logic models as the tool of choice for its annual planning activities and for monitoring the effectiveness of its programs in meeting its goals. In creating the logic model, the organization had to clearly articulate its goals, the outcomes (changes or benefits) its programs would effect, the specific indicators (measures) that it would accept as evidence of success, and the activities it would conduct to accomplish its goals. This experience will be discussed and ways that health sciences libraries of all sizes can use this tool will be outlined.

Results: The assessment and evaluation liaison introduced the concepts to the Regional Medical Library (RML) staff, using the "see one, do one, teach one" practice of medical education. Having seen a model in use during an National Library of Medicine (NLM) task force activity in early 2003 and created one during a two-week intensive institute in the summer of 2003 she introduced logic models to her colleagues late in 2003. Each RML liaison has, over three years, developed a level of comfort with defining goals, articulating outcomes, listing activities, and describing indicators of success that will reflect achievement of the outcomes. A reporting system gathers data on activities, tying them to the logic model.

Conclusions: Developing and using logic models is an art, not a science. By creating the model, collecting data and relating it to the plan, and continuously analyzing the data, the organization is able to track its progress toward established goals and desired outcomes.

2:45 p.m.

The Ten Thousand Questions Project: How Consumers Say What Consumers Want

Catherine Arnott Smith, assistant professor, School of Information Studies, Syracuse University, Syracuse, NY

Objective: How do health care consumers express their information needs in online communication?

Methods: Ten thousand bulletin board posts submitted between November 2003 and December 2004 were indexed by ten medical librarian content annotators. These approximately thirty-six bulletin boards originate in the United States, India, and the United Kingdom. They are sponsored by English-language, have

no cost or no registration required, are online communities, and have been selected for inclusion in seven major search engines' subject directories (AltaVista, AOL Search, Google, LookSmart, Netscape, Open Directory and Yahoo) and classed under Health Advice and synonymous categories. Boards were selected if they were identified by Google:link as referred by a large number of Websites (ranging from 29 to 15,100 in October 2003). The focus of these boards ranges from general parenting issues (childhood illness, learning disabilities, etc.) through specific diagnoses, both adult and pediatric, to fitness and wellness, including sexual health. Terms were identified that expressed features, findings, and therapies/procedures (for example, breast, neoplasm, chemotherapy/lumpectomy). Collected terms were analyzed and compared to the 2005 version of the Unified Medical Language System Metathesaurus (National Library of Medicine) to determine the degree of match between terms used by consumers and those present in established health care terminologies and classification systems.

Results: This is the first report of data from the Ten Thousand Questions Project, the first research project funded by the Medical Library Association's Donald A. B. Lindberg Research Fellowship.

3:05 p.m.

The Buck Starts Here: Using In-house Reports to Market Your Library

Elizabeth C. Burns, library manager, Medical Library 142D, VA Medical Center, Kansas City, MO

Objective: To show how using in-house library reports to administrators is an effective way to advocate for library funding.

Methods: Throughout the year, librarians are sometimes asked to submit reports on various topics. Performance improvement plans, projected cost plans, or any seemingly minor report is an opportunity to educate others on library services and needs. Advocating for the hospital library should be foremost in librarians' thoughts when writing reports. Utilizing the MLA and National Network of Libraries of Medicine (NN/LM) advocacy tools, plus other resources, is a proactive method that works. This paper demonstrates how such reports increased funding for the library.

Results/Outcome: By using in-house reports to advocate for the library, funding was increased by 25%.

Theme: Collections/Resources

Collection Development, Hospital Libraries, and
Technical Services Sections**The Journey Ahead: Leaving Print
for the Virtual Library**

2:05 p.m.

**Moving the Medical Library Directly to the Point of
Patient Care: Outreach to Remote Users with an
Intranet-based Virtual Medical Library****Elizabeth M. Killoran, AHIP**, director, Medical Library,
Medical Library, Milford Regional Medical Center, Milford, MA**Objective:** This paper will report on the necessity for design,
construction, maintenance, marketing, and outcome of a virtual
medical library on an organizational intranet.**Methods:** The medical library is a compact, one-person library
in a rapidly expanding community teaching hospital in a growing
suburban setting. The virtual medical library was designed as an
outreach project to provide remote users with convenient access
to the medical library directly at the point of patient care and,
ultimately, for improved patient care. It was designed as a value-
added service to increase medical library utilization and visibility
as an integral member of the health care team. User satisfaction
will be carefully monitored by keeping a detailed log of solicited
and unsolicited comments, both positive and negative; through a
formal written survey to all administrators, department managers,
and physicians, in combination with solicitation of any examples
of evidence provided by clinicians regarding improved patient
outcome as a direct result of the availability of the virtual medical
library. This project is ongoing, as the virtual medical library
continues to grow, and is continuously monitored for current,
quality content, ease of use, and user satisfaction.**Anticipated Results:** It is hoped that the virtual medical library
will advance the knowledge of staff, residents, and students,
contributing ultimately to improved patient care via campus-wide
access to quality knowledge-based information at the point of
patient care. In addition, it is hoped the virtual medical library
will increase medical library utilization and visibility, assisting in
positioning it as a recognized and vital member of the health care
team.

2:25 p.m.

**Taming the Wild Uniform Resource Locator: Technical
and Workflow Solutions for Effective Access to
Electronic Resources****Ben Hope**, head, Information Technology Office, NIH Library,
Betty Landesman, head, Collection Management, NIH Library,
National Institutes of Health, Bethesda, MD**Objective:** To enable seamless access to the electronic resources
that have become primary research tools by developing and
implementing effective technical systems and by examining and
streamlining staffing and workflow.**Methods:** Access to electronic resources has always been
provided through alphabetical lists on the library's Website as
well as the online catalog. An impending change to the Website,
from static hypertext markup language (HTML) files to a content
management system, where content would be dynamically
displayed, was the catalyst for the in-house development of anSQL database for electronic resources. Selection, acquisition, and
maintenance of electronic resources were performed by a cross-
functional team. Examination of the library's service needs and
organization resulted in technical services assuming maintenance
and support responsibilities for electronic resources. This paper
will examine the development and evolution of the SQL database,
ongoing efforts to integrate it with other library systems, and
changes in workflow to achieve effective and efficient support for
access to an ever-growing number of electronic resources.**Results:** Microsoft SQL Server was selected as the platform
to support an easily maintained and dynamically updated
database because of in-house expertise and compatibility with
other National Institutes of Health (NIH) systems. The new
database was launched in 2002, the new Website in February
2004. Continuing development has added components to
integrate into other systems. Staff is currently working on more
seamlessly maintaining the database with information from the
integrated library system and linking SQL data to SFX. Database
maintenance and troubleshooting of access problems had been
handled by public services, while technical services maintained
the online catalog records. In April 2004, technical services
assumed full responsibility for maintaining and supporting
electronic resources. Fifty percent of the 100,000 monthly visits
to the Website are to electronic resources. The SQL database
has been key to providing a robust and agile platform. Technical
services and information technology staff are integral partners in
providing effective access to online resources.

2:45 p.m.

**Zen and the Art of Electronic Resource Management:
Transforming Technical Services****Daniel M. Dollar**, associate director, Collection Development
and Management; **John Gallagher**, head, Access and Delivery
Services; **Cynthia Crooker**, director, Collection Development
and Management; and **Janis Glover, AHIP**, educational services
and senior reference librarian; Cushing/Whitney Medical Library,
Yale University, New Haven, CT**Objective:** A large academic medical library, confronted with
changing patron usage patterns, redesigned its technical services
department to shift from print-related work (check-in and
binding) to tasks that better support our electronic collections
and related services, such as link resolution. We report on
efforts to shed print for electronic formats and the management
implications of this ongoing transformation.**Methods:** Faced with anecdotal information and published
accounts stating that patrons prefer electronic to print, we
conducted a systematic study of usage data—including vendor
statistics, gatecounts, interlibrary loan requests, and photocopy
numbers—to demonstrate that patrons were using electronic
journals more heavily than print. Yet, our technical services
department with its many long-term staff was structured for
a print world. At the same time, the library's digital resources
librarian, the "hub" for all electronic resource work in the library,
was overwhelmed. The library hired consultants to draft a
blueprint for a technical services department based on "what is"
instead of "what used to be." A redesign committee was formed
to work from the consultants' report to implement and, in some
cases, reshape the recommendations.**Results:** On September 1, 2005, the technical services
department was renamed "collection development and
management." The digital resources librarian became associate

department head and supervisor of the serials team (3 FTE). We are now in the process of shedding our print serial subscriptions and considering dropping such tasks as serials check-in. We hope to reduce the number of print serials from 1,200 to 300 titles over the next 2 years. Along with staff training, we are implementing an electronic resource management system (Ex Libris Verde) to provide staff with the tools needed for electronic resource work.

Conclusions: The days of static work processes are gone and our efforts now center on building a staff with the customer service focus, problem-solving skills, and ongoing training necessary to manage the e-resources which will keep the library relevant for our users.

Dental Section, Medical Informatics and Public Health/Health Administration Sections

Stuck on E: Patron Expectation of E-Everything Changes What We Do

3:05 p.m.

Medical Library Reference a Virtual Reality: Transforming Reference from Up-close and Personal to Seamless at the Point-of-care

Rosalind K. Lett, AHIP, chief executive officer and executive director, Knowledge Cartel, Lithonia, GA

Objective: Is the future of library reference in medical libraries a virtual reality? A professional who seeks point-of-care innovation and targeted marketing, must asks tough questions like, "How will medical libraries utilize virtual reference services to reach patrons at the point-of-care?" and "Why are we hesitant when it comes to virtual reference in medical libraries and especially collaborative virtual reference?" These questions are being used to analyze the process of developing consortially staffed virtual reference services and discuss the transferability of these processes to forming consortially staffed medical library virtual reference services.

Methods: The pervasiveness of chat reference in research libraries has recently been established but has not yet been transformed into common practice in medical libraries. This paper will analyze the developmental issues consortially staffed virtual reference services must focus on to be successful. These issues include coordination of the service schedule, assessment of virtual reference products, statistics, marketing, policies, procedures, and training. Perhaps the most vexing problem confronting consortially staffed virtual reference services is the use of licensed electronic resources. What happens when a patron has access to certain licensed resources that differ from those of the staff person? A detailed review of established consortially staffed virtual reference services will be discussed in this paper.

Results: The results of this analysis of issues affecting the development of virtual reference services will be a focus on models that have been used by research libraries to develop successful virtual reference services. One of the key benefits of any virtual reference service is to allow users with disabilities and/or limited accessibility to communicate with library staff to find information. This paper will reveal how virtual reference services can be used as a marketing tool and a great way to grab atypical library patrons. This paper will also reveal how research libraries have adapted to consortially staffed virtual reference services that have resulted in usage increases in virtual reference

services and decreases in usage of email reference services.

Conclusions: As medical libraries begin to establish consortially staffed virtual reference services, they can learn many valuable lessons from the trials and errors of their research library counterparts.

2:05 p.m.

Understanding User Needs in an Online Environment: What We Can Learn from Electronic Reference Questions

Renaë Barger, reference librarian and document delivery coordinator, Health Sciences Library System, and **Melissa Ratajeski**, student intern, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

Objective: As part of a strategy to effectively assist remote library users, questions asked in an online environment were investigated. This study aims to determine the information needs of remote users and the challenges they encounter while using electronic resources. Trends discovered as well as strategies proposed to better serve remote users will be discussed.

Methods: This study analyzes the types of questions submitted electronically at a large academic health sciences library over a twelve-month period. Questions submitted through the "Ask a Librarian" feature in the Ovid database system and those submitted through the "Ask a Librarian" feature available from the library's Website were included.

Results: As questions were categorized, clear themes emerged indicating specific areas where users are consistently having difficulties while accessing library resources remotely. Understanding questions and challenges that arise in an online environment provides insight for librarians to implement new strategies that will support the information needs of remote users at the point of need. Such strategies may include content development of online tutorials, a more elaborate frequently asked question and answer Web page, Website design, and exploration of other options for virtual reference.

2:25 p.m.

Electronic Only, Please: Dealing with Increased User Demand for Electronic-only Resources

Vani K. Murthy, technical services manager, Montgomery College Libraries, Montgomery College, Rockville, MD, and **Janette Shaffer, AHIP**, associate director, **Tracie E. Frederick**, assistant director, Education Services, and **Jane L. Blumenthal, AHIP**, assistant dean, Knowledge Management, and director, Dahlgren Memorial Library, Georgetown University, Washington, DC

Objective: This paper will report on the changes made to operations by an academic health sciences library in response to increased user demand for an electronic-only journal collection. We will discuss the methodology used in transition to an electronic-only journal collection, the decision-making process, and the impact of this transition on other library functions, especially the technical services department.

Description: Faced with limited budget, proliferation of electronic resources, and an exponential increase in costs, this library was forced to find innovative ways of dealing with increased user demand for electronic resources. The results of a core journal evaluation study conducted in 2002 were used to define the core collection, and decisions regarding the retention, purchase, dropping of journals, and choice of format were made.

Faculty and library committee meetings were used to keep faculty involved in decision making. Changes in job descriptions, staff training, workflow and work processes, collection development, acquisitions, staff evaluation, and library Website design were made to accommodate the shift to an all electronic journal collection.

Results: In 2005, the library's journal collection consisted of 156 print journals and 2,217 electronic journals, compared to 786 print and 941 electronic in 2002. This sudden increase of electronic journals over a 3-year period has greatly affected the library's traditional functions and operational costs with regard to resources, materials, staffing, training, space, and equipment. The majority of these changes impacted the serials assistant position, which received a revised job description and training in new responsibilities. However, the interlibrary loan and course reserves procedures and training also changed. Acquisitions practices now include cooperative collection development and licensing, as well as a focus on eliminating duplicate titles in journal packages and shifting textbook purchases from print to electronic formats. Traditional circulation desk functions were also affected.

2:45 p.m.

With All the "E" They Still Want the "P": Integrating the Right Balance of Information Resources to Support Medical Students Throughout Queensland

Lisa M. Kruesi, manager, Health Sciences Library Service, and **Heather Todd**, executive manager Biological & Health Sciences Library Service, University of Queensland Library; **Andrew Heath**, senior librarian, Herston Medical Library; and **Peter Baker**, head, Rural Clinical Division, School of Medicine; University of Queensland, Brisbane, Queensland, Australia

Objective: Describe the library and information services (including electronic and print) for medical students on rural placement in their third and fourth year of a graduate medical program. A proposal to establish library and information services to support the University of Queensland's School of Medicine Rural Clinical Division (RCD) was successful in gaining over US\$750,000 in federal government funding for the period 2002–2005. This funding was in addition to University of Queensland Library health sciences budget. The federal funding was used to appoint two RCD librarians, purchase information resources and establish library facilities in two rural regions. The liaison librarians are a conduit to the larger university branch libraries resources and expertise. They work to ensure that medical students in rural regions to achieve library and information services on a par to their city equivalents. To date, the rural library services have improved computing infrastructure; developed core medical book collections; supported teaching, learning, and evidence-based practice; and undertaken a leading role in a personal digital assistant (PDA) project.

Methods: Case study of library and information services to support teaching staff and medical students on placement in rural settings in central and southwest Queensland regions.

Results: In 2006, funding for the RCD library service is ongoing. The PDA project has become a PDA service and is coordinated by the RCD liaison librarians. Whilst the rural clients have the best technology, including high-speed Internet access and mobile devices, they still demand access to the print. A review of the medical textbook usage and requirements in 2005 confirmed the requirements for small book collections. Library services have

expanded in the southwest region, including service arrangements with a third-party library. Integrating library services in the RCD has helped to strike the right balance of information resources for students, teaching staff, and researchers. The health sciences librarians based at the University of Queensland city teaching hospitals have learned from the rural liaison librarians close insight to client information requirements. Annually reports are made by the RCD library service to management on set performance indicators.

Poster

Blog This! A Proactive Method to Increase Library Outreach

Lisa Huang, reference librarian, Learning Resource Center, Collin County Community College District, McKinney, TX

Objective: To determine if an establishment of a Weblog, commonly referred to as a "blog," would increase faculty, staff, and student awareness and usage of a library's services in a community college. The outcomes may assist other libraries and library resource centers in identifying ways to increase usage and promotion of the library's services.

Methods: Blogs were established for the previous academic year with the respiratory care program at Collin County Community College District, facilitating communication between the health sciences librarian and the faculty and students. The librarian and respiratory care faculty were primarily interested in disseminating and addressing the information needs of the students in the program. Individual user surveys were conducted at the end of the academic year to assess the students' satisfaction with the blogs and the library.

Description: An online questionnaire was used to capture student responses. The results were sent to the author via email. The students agreed that they liked the blogs (87%) because they supplemented the class content. The students agreed (82%) that the blogs increased their knowledge about the services the library offers. Sixty-nine percent of the students stated that they liked the blog. Please see online survey, data results, and personal comments. A comparison of circulation statistics for the respiratory care titles in the collection revealed a 30% circulation increase between 2003 and 2005.

Discussion/Conclusions: Blogs have the potential to supplement class content and to encourage discussion between faculty and students as exemplified by this study. Librarians can use blogs to market library services to foster collaboration at their institutions. Further areas to examine are encouragement of student participation in blogs and the use of library sponsored blogs to serve student research needs.

Public Health/Health Administration, Research, Health Association Libraries, and Federal Libraries Sections

Evidence-based Public Health Librarianship

2:05 p.m.

Improving Access to Public Health Information: A Study of Information Needs in a State Health Department

E. Hatheway Simpson, project coordinator; **Nancy R. LaPelle**, qualitative research consultant; and **Elaine Russo Martin**, director, Library Services, Lamar Soutter Library, University of Massachusetts Medical School–Worcester

Background: Public health challenges can be better addressed if credible information about health risks and effective public health practices is readily available. The need for improved access to evidence-based public health information has been recognized by public health practitioners, researchers, policy makers, and librarians.

Objective: To understand the information needs of the public health workforce and to improve access to credible and relevant information for public health practice.

Methods: A qualitative study identified how public health professionals currently access information, what barriers they face, and what improvements they need. Nineteen individual interviews were conducted in two state health bureaus, communicable disease control and community health promotion. Follow-up focus groups were conducted to gather additional data on preferences for accessing information.

Results: Public health professionals interviewed have a wide variety of needs and use different information sources depending on the areas of public health they work in and the diverse nature of their work. The types of information they use can be arranged in an information needs continuum ranging from early reports of disease outbreaks needed by those dealing with emerging diseases to published reports, journal articles, systematic reviews, and evidence-based guidelines needed by those working on the prevention and control of well-known diseases and health threats. Information sources used by the participants include news resources, email discussion lists, alert services, journal articles, conference proceedings, and email. The study revealed that public health practitioners face several barriers and limitations to accessing quality information for public health practice. These include lack of time and knowledge to find quality information; feeling bombarded with unfiltered and often duplicative information from email discussion lists; and limited access to gray literature, systematic reviews, and full-text journal articles.

Conclusion: Both groups expressed the need for access to information targeted toward their specific public health areas of interest and desired a way to filter information for more efficient access to relevant information. The research team developed a hypothetical model for the delivery and organization of credible and relevant public health information. Some of the participants were not aware of evidence-based public health resources currently available. An outcome of the project that is particularly beneficial to the public health workforce and information professionals is the project's Website (library.umassmed.edu/ebpph/), which provides free online access to public health journals, databases, and evidence-based public health resources identified by the research team.

2:25 p.m.

Evidence-based Public Health Informatics Training for Public Health Practitioners in New Mexico: A Randomized Controlled Trial

Jonathan D. Eldredge, AHIP, associate professor, and **Richard D. Carr, AHIP**, coordinator, Reference and User Support Services, Health Sciences Library and Informatics Center, The University of New Mexico—Albuquerque

Objective: To improve the profession's understanding of the information needs and information-seeking behaviors of public health professionals (health educators, nutritionists, nurses, epidemiologists, physicians, etc.), the investigators conducted this experimental study to determine whether evidence-based

public health (EBPH) informatics training actually increased the frequency and sophistication of practice-related questions as articulated by these public health professionals.

Methods: Randomized controlled trial: Professional-level department of public health employees were recruited into this study and then randomized into an intervention or a control Group. The intervention group received EBPH training early in the program whereas the control group received identical training at a later date. The frequency and sophistication of the questions generated by both intervention and control groups during the interim two-week study period served as the basis for the comparison. This study was replicated at five sites in a rural state involving a total of seventy-four public health professionals. This paper will include a brief discussion of methodological quandaries encountered in a randomized controlled trial and ways they can be resolved successfully.

Results: The authors hypothesized that the intervention group would articulate a statistically significant greater number of practice-based questions and that these questions will be far more sophisticated following the EBPH training session than the questions generated by the still untrained control group. Preliminary results with two months remaining in the project support the first hypothesis that EBPH training serves as a catalyst for public health practitioners to articulate a greater frequency of questions. In fact, twice as many questions were articulated by the intervention group. The second hypothesis concerning generation of more sophisticated questions following the EBPH training session does not seem to be supported by the preliminary results.

Conclusions: The authors will report their research findings for both hypotheses at MLA '06.

2:45 p.m.

A Model of Informationist Service for Research Administrators at the National Institutes of Health

Janet Heekin, AHIP, biomedical librarian, NIH Library, National Institutes of Health Library, Bethesda, MD

Objective: The National Institutes of Health Library (NIH Library) is among the first medical libraries in the world to implement informationist services. Up to now, the NIH Library's informationists have worked primarily on clinical research teams. Recently, the NIH Library began developing a model of service for research administrators at NIH. Research administrators include grant administrators, policy analysts, and policy advisors, who oversee the clinical research enterprise of the federal government and advise on national health policies. This paper describes the planning process for introducing such service to research administrators in the National Institute on Alcohol Abuse and Alcoholism (NIAAA).

Methods: To assess the unique information needs of NIAAA research administrators, a survey was conducted in the winter of 2005. The participants in the survey were primarily senior staff officials, including the institute director, division directors, branch chiefs, and team leaders. The survey was targeted at senior staff to ascertain whether the services of an informationist were needed for their respective groups. The survey questions concentrated on information needs at the division level and were sufficiently complex to require the advanced skills of an informationist trained in both information science and the health sciences.

Results: An email survey was sent to twenty-four NIAAA senior staff, and ten surveys were received. These results were then compared to the results of a survey conducted on a randomized sample across all the institutes. Conducting a survey at the onset of service helped to ascertain information needs as well as educate the client group about the ability of the informationist to customize information services to their specific group.

3:05 p.m.

An Innovative Resource to Promote Evidence-based Public Health Decision Making

Maureen Dobbins, assistant professor, School of Nursing; **Kara DeCorby**, project coordinator, Health-evidence.ca; and **Donna Ciliska**, professor, and **Helen Thomas**, associate professor, School of Nursing; McMaster University, Hamilton, ON, Canada

Objective: To provide access to an online, searchable registry of systematic review evidence related to public health and health promotion interventions. Reach includes public health information professionals and decision makers in local, provincial, and national public health units and health services researchers interested in promoting evidence-based practice.

Methods: Sources searched (1985–present) included: (1) electronic database searches of MEDLINE, EMBASE, CINAHL, PsycINFO, Sociological Abstracts, and BioSIS; (2) handsearches of twenty-one main journal titles and three to five additional journal titles per subtopic area (i.e., mental health); and (3) reference list searches of all relevant reviews. Relevant reviews must meet five criteria: (1) are systematic reviews or meta-analyses, (2) are relevant to public health, (3) focus on the effectiveness of interventions in public health, (4) provide data on outcomes, and (5) include a search strategy. Reviews that passed relevance testing were keyworded according to commonly used public health terms. All reviews were quality assessed by two independent reviewers and were given a methodological rating of strong, moderate, or weak. Functionality of the site directly responds to the needs of decision makers, identified through a qualitative interview process.

Results: Qualitative interview data demonstrated that decision makers require an easily accessible, user-friendly repository of research evidence that is assessed for methodological quality and summarized and disseminated on a regular basis. Findings led to development of www.health-evidence.ca, a registry of more than 500 reviews launched March 10, 2005. Health-evidence.ca has attracted over 1,400 registered users from multiple countries, backgrounds, and interests. Public health nurses, program managers, health promotion workers, researchers, and program coordinators form the largest groups of registered users, followed by librarians, dietitians, medical officers of health, and nutritionists. Reviews are categorized into public health topic areas such as addiction and drug use, chronic diseases, dental health, and injury prevention and safety.

Conclusions: Creation of a review registry provides opportunities to promote transfer and uptake of research evidence into public health. Findings of research developed along with health-evidence.ca promote a knowledge transfer strategy, which supports evidence-based public health decision making.

Theme: Education and Outreach

Nursing and Allied Health Resources, Hospital Libraries, and Chiropractic Libraries Sections and African American Medical Librarians Alliance SIG

Implementing Evidence-based Practice in the Real World

2:00 p.m.

Building a Culture of Best Practice Requires Collaboration Among Librarians, Scientists, and Clinicians

Ellen Fineout-Overholt, director, Center for Advancement of Evidence-Based Practice, and associate professor, Clinical Nursing, College of Nursing, Arizona State University–Tempe

Description: Ellen Fineout-Overholt, coauthor of *Evidence-based Practice in Nursing and Healthcare: A Guide to Best Practice*, will discuss how collaboration among librarians, scientists, and clinicians is essential to advancing a culture of best practice. Foundational issues such as a common definition of evidence-based practice (EBP) and knowledge of the steps of and barriers to EBP will be discussed. The roles of librarian, scientist, and clinician in using EBP to improve health care will be described, with the Arizona Consortium for the Advancement of EBP (AZCAEP) used as a case study to demonstrate outcomes that can be achieved through collaboration

2:25 p.m.

It Takes Two: Librarians and Nurses Collaborate to Establish a Magnet Hospital Evidence-based Nursing Project

DeDe Leshy, senior medical librarian, and **Irene Lovas**, senior medical librarian, Medical Library, Cedars-Sinai Medical Center, Los Angeles, CA

Objective: Inspired by the Pravikoff study in the *American Journal of Nursing*, September 2005, about nurses relying on colleagues to answer clinical questions, two librarians and three nurses at a large magnet hospital collaborated to assist interested nursing staff to become familiar with evidence-based nursing skills.

Methods: At a nursing Magnet hospital, the medical library serves a large nursing and medical staff and provides several electronic bibliographic databases for medical literature and information. Two staff librarians offered their expertise to a core nursing group of two clinical nurse specialists and a nurse practitioner charged with establishing and promoting evidence-based research among the clinical nursing staff. The goal is to educate the nurses to develop clinical questions, then find answers using evidence-based practice. Their original research is to be presented at a nursing symposium held in conjunction with “Nurses Week.” The librarian-nurse team organized three research pre-conferences covering question building and database searching skills. These sessions offer nursing continuing education credits for the participants. The librarians are available for consultations as the nurses develop their research topics. Steps in the project launch are discussed. Specific roles for librarians

are elaborated and suggestions for future collaborative projects are proposed. Collateral impact on the library is considered.

Results: All preconference classes were well attended and the librarians' class generated much positive interest among the nurses. Because time constraints prevented many potential nurse researchers from attending all three sessions, two of the classes were repeated, including the librarians' session. Paper topics and examples of the individual consultation sessions between the librarians and potential researchers are described. The librarians presented their project at the nursing research symposium.

They were asked to join the Nursing Research Committee to promote evidence-based research among the nursing staff and collaboration between the two groups.

Conclusions: This joint approach to evidenced-based nursing benefits both the medical library and the nursing department. The medical library gains an increased awareness among the nursing staff who are less intimidated about using library resources and asking for assistance. The nurses gain the ability to "find the evidence" independently and effectively when they want to implement change.

2:45 p.m.

The Hospital Library as "Magnet Force" for a Research and Evidence-based Nursing Culture: A Case Study of Two Magnet Hospitals in One Health System

Diane R. Rourke, AHIP, director, Library Services, Baptist Health South Florida, Miami, FL

Objective: With two Magnet award-winning hospitals in a six hospital health care system, the hospital library's role seemed large enough. What more could be done to enhance the research culture and provide expertise for the development of evidence-based practice in the "real world" of nursing?

Methods: Answers were many: get involved in two separate research committees and one system-wide research collaborative, work with those committees reviewing ("scrubbing up/editing") nursing research proposals before submission to the internal review board, justify adding lots of nursing electronic resources and including links to them in the new online catalog, teach basic evidence-based practice concepts to onsite critical care and emergency nursing academies, and participate in the development of a model for evidence-based practice in one Magnet hospital. This case study reveals the value of an active participatory role for the hospital librarian in the shift to a research and evidence-based culture in two Magnet hospitals, underscoring the value of the parent organization's investment in library-based electronic resources as well as adequate professional library staffing.

Results: Baptist Health South Florida consists of six hospitals, two of which have achieved Magnet status: Baptist Hospital of Miami and South Miami Hospital. Building on its long history of service to nurses at both hospitals, the library has contributed to their American Nurses Credentialing Center (ANCC) Magnet certification and recertification process, validating the "reality" of their ongoing research and evidence-based culture. Some activities include: archiving nursing publications and research through its author database and a dynamic electronic outreach program to nurses, formally and informally. More nurses use library e-resources effectively at the patient bedside, resulting in more nursing research projects in both institutions. An evidence-based practice model is in place for nursing in all hospitals. Adding an electronic resources librarian, the library has fully participated in research and informatics initiatives at both

hospitals and truly has been a "magnet force" for this culture change in nursing.

3:05 p.m.

Strategies for Creating an Evidence-based Practice Nursing Culture

Tanya Feddern, AHIP, reference and education services librarian, Louis Calder Memorial Library, University of Miami Miller School of Medicine, Miami, FL, and **Kathryn M. Ewers**, educator, Department of Education and Development, Jackson Health Systems, Miami, FL

Purpose/Setting/Participants/Resources: The purpose of the project was to develop a strategic action plan to create a nursing culture that values and utilizes evidence-based practices for the delivery of nursing care. This paper summarizes how to identify and develop educational interventions for fostering an evidence-based nursing culture at a university-affiliated public hospital. These interventions were implemented via collaboration between nurse educators and a medical librarian.

Brief Description: To evaluate nursing culture and readiness for evidence-based practice, the nurse educators utilized the Promoting Action on Research Implementation in Health Services (PARIHS) framework and adapted the Registered Nurses Association of Ontario's (RNAO's) action template. A descriptive survey was developed from the PARIHS framework and was used to assess cultural readiness for evidence-based practice. The RNAO template was used for identifying educational interventions. The nursing educators and medical librarian then collaborated on targeted educational interventions, such as selecting evidence-based filters for Ovid CINAHL, creating a unique evidence-based practice (EBP) certificate program consisting of collaborative continuing education classes, and brainstorming on other educational activities for the busy nurse clinician and researcher, such as an EBP online discussion list and an online journal club.

Results: Inter- and intra-collaboration between nursing educators and the medical librarian have led to the successful creation and/or modification of educational assessments and interventions to bring about a change in nursing culture toward using EBP in clinical practice. Survey results suggest that intensive educational strategies are resulting in a higher rate of evidence-based practice change and that nurses' knowledge of and skills in EBP are above the national average.

Public Services Section, Outreach and Molecular Biology and Genomics SIGs

Transforming Reference and Outreach Services for Biomedical Researchers

2:05 p.m.

Transforming Hands-on Instruction in Bioinformatics and Genomics

Pamela M. Corley, AHIP, research support librarian, Norris Medical Library, University of Southern California—Los Angeles

Objective: This paper illustrates techniques used to present bioinformatics topics to researchers during hands-on computer workshops. Because bioinformatics and genomics cover tough concepts, it is important that participants not get bogged down moving between resources and tools. Methods were developed to reduce the time spent navigating to the tools and to increase the

time spent covering complex topics.

Methods: The bioinformatics specialist and the research support librarian collaborated to develop training methods that would make learning difficult concepts easier. Two instructors were used during the workshops: the bioinformatics specialist taught the bioinformatics-related concepts, applications, and tools; the research support librarian provided assistance with the hands-on. This paper documents the training methods used and can serve as a model for others providing hands-on workshops.

Results: Classroom observations, informal feedback, and a formal evaluations provided insight into how to refine the workshops. Finding the appropriate balance between remediating those students lacking basic computer skills and addressing the needs of the skilled computer user continues to be a challenge. The goals of the attendees varied from those desiring an introduction to those wanting a working knowledge of the topic. Individual consultations, referred to as HouseCalls, were often arranged as a follow-up.

2:25 p.m.

Asymmetries in Retrieval of Gene Function Information

Timothy B. Patrick, assistant professor, College of Health Sciences, University of Wisconsin–Milwaukee, and **Lillian C. Folk**, project manager, College of Veterinary Medicine, and **Catherine K. Craven**, informatics research fellow, Health Management and Informatics, University of Missouri–Columbia

Objective: Managing bioinformatics reference resources is not trivial. A common strategy, for example, for interpreting the results of a microarray experiment is to examine the primary literature about the expressed genes. Our goal was to determine if different standard bioinformatics reference resources would provide significantly different retrieval results, resulting in different functional interpretations of the results of the experiment.

Methods: Knowledge of differences among bioinformatics resources will help biomedical librarians better assist biologists in using those resources. Accordingly, we conducted a quantitative study comparing three different standard bioinformatics resources—National Center for Biotechnology Information (NCBI) Entrez-PubMed, NCBI Entrez-Nucleotide, and NCBI Entrez LocusLink—for retrieval of literature about the function of genes. We first collected target nucleotide accession numbers associated with genes expressed in a particular microarray experiment. Next, we retrieved the unique identifiers (UIs) of Entrez PubMed citations that were associated with the accession numbers by each of the three Entrez resources. Next, we compared the number of UIs retrieved by the three resources. We used the Friedman test and Kendall's W test to determine if there was a significant difference among the three resources in providing access to literature about the function of the expressed genes.

Results: We examined 3 paths to the relevant literature for a given nucleotide accession number: (1) Entrez PubMed through the SI field, (2) Entrez nucleotide through PubMed Links, and (3) Entrez gene through PubMed Links. The results of our comparisons of the three retrieval paths were significant for both the Friedman test and Kendall's W test, at $P < 0.05$. In another words, the 3 paths for retrieving relevant PubMed bibliographic records for a given sequence are not equivalent. The implication is that biologists may make different functional interpretations of expressed genes depending on their search

strategies. This suggests that biomedical librarians may play an important mediating role between the biologist and the biological information space. Knowledge of the formal characteristics of bioinformatics resources falls reasonably under the purview of biomedical librarians. Such knowledge may be used to help the biologist avoid pitfalls when using such resources.

2:45 p.m.

From Desk to Text: The Transformation of Reference

Lynette Y. Ralph, AHIP, assistant professor and assistant director, and **Ladonna Guillot**, assistant professor and health services librarian, Sims Memorial Library, Southeastern Louisiana University–Baton Rouge

Description: This article will report on the use of the Text A Librarian reference service offered. This service allows students, faculty, and staff to use the text message feature of their cell phones to send and receive answers from reference librarians. To send and receive text messages, these librarians use a dedicated text messaging telephone number and email SMS conversion software.

Results: The service is relatively easy to use and incorporate. It is inexpensive and involves little training. To date, text messages represent approximately 10% of all reference questions.

3:05 p.m.

Leaving the Labyrinth: Partners in the Publication Process

Holly K. Grossetta Nardini, coordinator, Liaison Activities, and **Denise P. Hersey**, coordinator, Liaison Activities, Cushing/Whitney Medical Library; **Carrie L. Iwema**, postdoctoral associate, Department of Neurosurgery; and **Lynn H. Sette**, reference librarian, Cushing/Whitney Medical Library; Yale University, New Haven, CT

Objective: To establish an innovative, in-house publication support service to aid the research and publishing activities of the community and bolster the open access movement. Services would range from free (e.g., enhanced education program, a comprehensive Website, automatic submission of papers to PubMed Central) to fee-based (e.g., referral to professional medical editors, clerical support for journal submissions, citation database management).

Methods: Using a combination of observational evidence, interview data, and a formal survey, determine the desirability and sustainability of different service levels. Determine fees and a cost model. Seek grants and internal seed money for start-up costs. Survey campus resources to plan coordinated and targeted outreach and instruction sessions to postdoctoral graduates, faculty, and researchers. Reach out to local and national medical editors for inclusion in a resource and referral guide. Explore programs offered commercially or at other institutions to avoid false steps. Use the feasibility study and establishment of the service as “teachable moments” in liaison and outreach activities. Increase awareness of the library's role in knowledge creation, dissemination, and preservation and promote open access through kick-off events for the service and an ongoing marketing campaign.

Theme: Healers and Healing**Cancer Librarians Section and Complementary and Alternative Medicine SIG****Cancer Prevention and Treatment: From Community Transformations to Complementary and Alternative Therapies****2:00 p.m.****Community Health Attitude Transformation Through Colon Cancer Prevention and Awareness Campaign****Davor Vugrin**, clinical professor, Medicine, Center for Cancer Control, Texas Tech University–Lubbock

Description: Colorectal cancer is one of the most common cancers and the 2nd highest cause of combined cancer mortality in the country. Over the next 10 years, an estimated 1.5 million men and women in the United States will be diagnosed with colorectal cancer and 600,000 will die if something is not done. The fact is that over 90% of these cancers can be prevented from occurring and most of the deaths can be prevented if the currently best available technology is applied consistently throughout the population according to the American Cancer Society (ACS) guidelines. The barrier to reducing the number of deaths from colorectal cancer is not a lack of scientific data but a lack of organizational, financial, and societal commitment (Podolsky, NEJM 2000). In 2003, Lubbock, TX, responded to this challenge and formed the Colon Cancer Prevention Task Force to work on elimination of colon cancer as cause of illness and death in our region. The goal is by year 2008 to reduce age adjusted colorectal cancer mortality in Lubbock County by 50% and by 2011 by 90%. The population of Lubbock County is approximately 250,000 of whom over 56,000 men and women are 50 years or older. Step 1 is to educate and motivate the population at risk for colorectal cancer to seek immediate screening for colorectal carcinoma, according to the ACS guidelines. Step 2 is to educate and motivate the entire population to practice primary prevention by adopting healthy life styles according to ACS guidelines. Preparation and planning required a search of existing databases. The task force partnered with city and county governments, media, academic and health institutions, voluntary organizations, private organizations, and state institutions, etc. A yearlong community coalition colon cancer prevention awareness campaign gave a human face to this cancer and tore down the wall of silence around this cancer that nobody wanted to talk about. Colon cancer survivors have played a central role in the fight against this cancer. This project received recognition and awards on state and local levels in 2005. In 2006, the Texas Cancer Council awarded a grant to this project, thus helping to transition from a purely volunteer base to hired staff-supported volunteer program. In 2006 and 2008, the Behavioral Risk Factors Survey (BRFSS) will “over sample” in the county to measure effects of the campaign. This work in progress will be presented during the meeting. This model can be eventually applied in other communities through out the state.

Supported in part by the Texas Cancer Council Grant #2006-01.

2:45 p.m.**Incorporating Complementary Therapies into the Hospital Oncology Setting: Challenges and Structure****Edythe Garvey**, clinical nurse and consultant, Banner Desert Medical Center, Chandler, AZ.

Purpose: Incorporating music, aromatherapy, hypnotherapy, and massage for cancer patients and their families while hospitalized can be over looked in the busy hospital setting. Many oncology nurses may express the value for such therapies, yet it can remain difficult to offer due to budget constraints, staff time, regulatory requirements, and the like. In a hospital in greater Phoenix area, the oncology nurses collaborate with such disciplines and offer these therapies to patients. Champions for such integrated therapies are needed to continue a strong program.

Results and Outcomes: Patients have reported favorable results from such complementary therapies. In a small study of twelve patients, depression and anxiety have been reduced and will be discussed.

Evaluation Method: Feedback from patients were solicited after the therapies were completed. Although subjective data was obtained, the effect for the patient and family is valued

History of the Health Sciences Section and Oral History Committee, MLA Board, and MLA Headquarters**Passing the Baton: Transforming Knowledge****2:05 p.m.****The Sherrington School****Lucretia W. McClure, AHIP, FMLA**, special assistant to the director, Center for the History of Medicine, Countway Library of Medicine, Boston, MA

Description: A scientist whose ideas created great excitement was Charles Scott Sherrington, a visionary neurophysiologist who brought fresh insight to the new era of cellular histology. The nerve cell with its interconnections became his field. But he was not only a great neurophysiologist and winner of the Nobel Prize in 1932, he is equally well known as a teacher and mentor. Two aspects of his life and work make clear why he is remembered today. First was his extraordinary work on spinal reflexes and the second his teaching of dozens of students during his fifty-one year career. This paper explores who influenced and mentored Sherrington and why he had such influence on the students he mentored.

Methods: A review of Sherrington’s education shows where he studied and with whom he was mentored. Following his path to learning will show why he became such an acknowledge mentor. This is an impressive example of the transfer of knowledge, resulting in the creation of new knowledge

Results: Sherrington’s mentors inspired him and he incorporated their thoughts and opinions into his work. One mentor was Sir Michael Foster who was mentored by R. D. Grainger who worked under Charles Bell, making a direct line from the 1700s to the 1900s. Claude Bernard was another influence on Foster, thus the thinking and teaching of these great physiologists led to the formation of Sherrington’s ideas and work.

Conclusions: Sherrington learned from the masters of their disciplines. In turn, he followed their examples and became the teacher and mentor for a cadre of young researches in neurophysiology. His legacy is the number of students who carried on in the Sherrington tradition. The list is long and distinguished and resulted in many advances in science and medicine.

2:25 p.m.

From Pap to ThinPrep to HPV Vaccine: Detection and Eradication of Cervical Cancer

helen-ann brown, AHIP, acting head, Information Services, Weill Cornell Medical Library, Weill Medical College of Cornell University, New York, NY

Objective: To trace the historical contribution of vaginal smears, the conventional pap smear, Babes technique, and liquid-based ThinPrep to correctly detect cervical cancer and forecast the effectiveness of a new HPV-16 vaccine, and Gardasil to contain and one day eradicate cervical cancer.

Methods: This is an historical review through published literature and anecdotes marking the contributions of George Papanicolaou of Cornell, Aurel A. Babes of Bucharest, ThinPrep, a liquid-based cytology from CYTYC, and the bright promise of Gardasil, an human papillomavirus (HPV)-16 vaccine.

Results: Babes in Europe and Papanicolaou in the United States deserve high praise for their contribution to design a test to detect cancer cells. Mary Papanicolaou also deserves praise for her willingness to be a test subject for 20 years and the model used for "normal." With a sensitivity of sometimes no more than 50% and too many false negative results, liquid-based cytology was developed to replace the conventional pap smear. Studies have shown ThinPrep to be superior, or equivocal to the pap smear. Today, guidelines from the American College of Surgeons and American College of Obstetricians and Gynecologists outline a cervical cancer screening protocol for women of all ages. The conventional pap smear, liquid-based cytology, or a combination of a smear with HPV DNA testing will be used. These screening protocols have detected cervical cancer that can be treated. Gardasil and other HPV vaccines target HPV-16 and 18 and show promise to prevent cervical cancer.

2:45 p.m.

A Leslie Morton Style Review of Selected Landmarks in Medical Bibliography from Alexandria to the Internet

Jeremy Norman, historyofscience.com, Novato, CA.

Description: Using examples from Garrison-Morton, this talk will be a discussion of the history of historical bibliography and list making and the ways it is now being applied, with modifications, on the Internet.

3:05 p.m.

Genetics: From Genes to Genomes

Pamela M. Corley, AHIP, research support librarian, Norris Medical Library, University of Southern California—Los Angeles

Objective: There has been an incredible explosion of information in genetics. This poster will present some of the major landmarks in the history of genetics.

Methods: With images and accompanying text, this poster will illustrate key milestones in genetics. The presentation will use a dual timeline with scientific genetic events presented in the context of the significant events in information sciences and medical librarianship.

Theme: Leadership and Professional Development

Corporate Information Services and New Members Sections and African American Medical Librarians Alliance SIGs

The Job Market: How to Find the Jobs? What Do Hiring Managers Want?

2:05 p.m.

An Employer's Perspective

Holly S. Buchanan, AHIP, associate vice president, Knowledge Management and Information Technology, Health Sciences Library and Informatics Center, The University of New Mexico—Albuquerque

Objectives: The purpose of this paper is to present the hiring perspective of employers, in today's health care environment, whether they be academic health centers, hospitals, or corporate health care partners. The presenter discusses what a search committee looks for in screening applications, during the interview, in a reference check, and while in contact with an applicant throughout the process.

Method: The paper overviews data gathered through surveys of health care institutions and incorporates an example of search process used by one academic health sciences center, The University of New Mexico.

2:25 p.m.

A Recruiter's Perspective

Deborah Schwarz, president and chief executive officer, Library Associates, Beverly Hills, CA

Description: The purpose of this presentation is to outline how the employment market for librarians, and medical librarians specifically, looks like from a recruiter's vantage point. In addition, this presentation will cover how to work effectively with a recruiter, both as an employer and as a candidate; provide an overview of using the Internet effectively in the job search; and discuss trends in employment for information professionals in the health care fields and government.

2:45 p.m.

Marching in Tempo to a Syncopated Rhythm: An Independent Information Profession's Perspective on the Job Market

Rosalind K. Lett, AHIP, chief executive officer and executive director, Knowledge Cartel, Lithonia, GA

Objectives: The purpose of this paper is to present a look at the market place from the perspective of an independent information professional, in today's health care environment. A discussion will be engaged about what steps should be taken to become an independent provider, what the job market outlook is like for information providers, what services can be offered, what type of marketing is required, and other specific aspects of being an independent information professional.

Method: The paper provides a bird's eye view of the skills, knowledge, abilities, and attributes needed to work successfully as a solo practitioner.

3:05 p.m.

Panel Discussion

Shannon D. Jones, education services outreach librarian, Tomkins-McCaw Library for the Health Sciences, Virginia Commonwealth University–Richmond; **Rosalind Lett, AHIP**, president and chief executive officer, The Knowledge Cartel, Huntsville, AL; **Holly S. Buchanan, AHIP**, associate vice president, Knowledge Management and Information Technology, Health Sciences Center, University of New Mexico–Albuquerque; and **Deborah Schwartz**, president and chief executive officer, Library Associates, Beverly Hills, CA
Description: A panel discussion will follow the individual presentations.

Leadership and Management
and Hospital Libraries Sections

Information Darwinianism

2:00 p.m.

Information Darwinianism: Adaptation and Renewal for Your Library in the 21st Century

Lou Wetherbee, consultant, Lou Wetherbee and Associates, Dallas, TX, and **Richard Wayne**, consultant, Strategic Information Management Services, DeSoto, TX

Objective: Develop a comprehensive methodology for adaptation and renewal in libraries. Although the primary objective is to develop a model that can be used generically in many library environments, the model can be modified to suit the circumstances and situation of almost all libraries.

Setting: The data has been primarily extracted from academic, public, and medical libraries.

Methods: The authors have employed a multimodal set of tools including a review of library and management literature, quantitative analysis instruments, and extensive consulting experience. The model has been refined in an iterative manner over two years.

Results: The methodology that was developed aggregates twelve adaptation and renewal elements into four major areas: business considerations, analysis, interaction, and actualization. The twelve elements that compose the model are active leadership, organizational efficacy, business processes, self-analysis, customer analysis, data analysis, creative partnerships, competition, special added value (including space

considerations), continuous learning, technology, and visioning.

Conclusions: Organizational problems can be addressed and solved by combining an effective methodology with logical thinking and appropriate planning. Libraries can thrive if sufficient resources are applied to their continuing adaptation and renewal. An ongoing program using information Darwinianism techniques can help a library identify threats and opportunities to refresh its service model. Although the model can be used “as is” in most environments, it can also be easily modified for special or specific circumstances.

Reading List: HIGA ML, BUNNETT B, MAINA B, PERKINS J, RAMOS T, THOMPSON L, WAYNE R. Redesigning a library’s organizational structure. *Coll Res Libr* 2005 Jan;66(1):41–58.

Medical Library Education
and Medical Informatics Sections

How We Educate Ourselves: A Refresher on Education Options

2:00 p.m.

Panel Discussion

Christopher Stave, instructional and liaison services coordinator, Lane Medical Library and Knowledge Management Center, Stanford University, Stanford, CA; **Steven L. MacCall**, associate professor, School Library and Information Studies, University of Alabama–Tuscaloosa; **Ana D. Cleveland, AHIP**, professor and director, Health Informatics Program Director, Houston Program, Department of Family Medicine Health Sciences Center, University of North Texas–Denton; and **Prudence W. Dalrymple, AHIP**, fellow, Health Sciences Informatics, Johns Hopkins University, Baltimore, MD.

Description: During this session, the panelists will discuss how they educate themselves and keep up with current trends in medical librarianship and informatics. This session is an extension of last year’s presentation on the MLANET survey cosponsored by Medical Informatics, Medical Library Education, and Technical Services Sections on what they do to further our librarianship and/or informatics knowledge. This panel consists of library science faculty members, an library and information science dean currently in an informatics fellowship program, and a current librarian. Panelists were chosen based on their unique experiences and willingness to speak. They will each describe the various keeping-up methods they have employed, including distance education, continuing education classes, and fellowships.

Theme: Collections/ResourcesHistory of the Health Sciences
and Hospital Libraries Sections**Junk into History? Dealing with Archives and Gifts****2:05 p.m.****Tips for Managing Archival Collections in the Health Sciences, or What to Do When You Can't Do It All****Lisa A. Mix**, manager, Archives and Special Collections, Kalmanovitz Library and Center for Knowledge Management, University of California–San Francisco**Objective:** This paper is directed toward librarians with limited knowledge of archival methods, who have been assigned responsibility for historical collections. The author will present some basic steps for handling archival collections, with emphasis on collections in the health sciences and on managing with limited resources.**Methods:** Most institutions assign archival functions to the library. However, not all libraries are able to afford a full-scale archival program or a full-time archivist. Particularly in small libraries, responsibilities for managing archives may be assigned to a librarian with little prior experience in archives. Often, archival programs must function with limited resources. Archives in the health sciences present additional challenges, as some historical materials are subject to federal privacy regulations. Recognizing that many institutions “can’t do it all,” the presenter will identify the basic essentials for a successful archives program and present strategies for managing on limited resources. The presenter will inform the audience of available resources for assisting archivists in the health sciences and for enhancing archival programs.**2:25 p.m.****Enhancing Value and Visibility: The Hospital Library as Manager of Corporate History****Fay Towell**, library manager and archivist, Health Sciences Library, Greenville Hospital System, Greenville, SC**Purpose:** This paper will describe the development of the library’s acquisition of the archives, including how this has enhanced library visibility and value and preserved staffing.**Setting/Participants/Resources:** The library serves over 7,500 health professionals system-wide. The 12 institutions composing the hospital system include acute care hospitals, a children’s hospital, a psychiatric hospital, a rehabilitation hospital, and a long-term care center. In a recent move to partner with state-wide universities, the system became a medical university in April 2005.**Description:** As libraries transition into the electronic age, they must be creative to enhance their value to their organizations. By volunteering to manage the archives, this library has become involved with collecting, preserving, and retrieving documents and artifacts that chart the development of the health system for the past 100 years. This involvement serves to increase the visibility of the library to those both within the organization and outside in the community. Patrons look to the library for answers to questions that are other than medical, therefore diversifying the library’s research capabilities. This paper will reference

involvement of other hospital and medical university libraries in the archives as reported in the literature.

Results/Outcome: The library has become recognized as a place to seek knowledge about organizational and corporate history as well medical information, therefore diversifying both patrons and resources.**Evaluation Method:** A record is kept of all requests that are answered with archive material and reported to the President’s Council. Anecdotally, comments from patrons researching in the archives have been very favorable.**2:45 p.m.****Opening Pandora’s Box: Redux****Richard C. Wood**, executive director, Libraries, Libraries of the Health Sciences, and **Margaret Vugrin, AHIP**, reference librarian, Preston Smith Library of the Health Sciences, Texas Tech University Health Sciences Center–Lubbock**Objective:** Before a possible gift could be accepted, approximately 1,600+ items needed to be identified, cataloged, and photographed to create a product from which an independent appraisal could be made. Collections consisted of medical and pharmaceutical artifacts, books, and journals from the 17th to the mid-20th century. The director was asked to assess the collections and to prepare an inventory.**Methods:** The library director was assisted by an in-house reference librarian/photographer and a student assistant, and, on two occasions, two additional librarians (a cataloguer and a former archivist) joined the team during this eight-month project. All items were numbered, identified, and measured; this information was then dropped into PowerPoint. Multiple digital photographs were taken of all the items. Using PhotoShop, images were enhanced, converted to JPEG format, and then dropped into the appropriate PowerPoint slide. The process of identification and organization employed various technologies to prepare final appraisal products, entailing many intricate steps that will be described in this presentation. Organization of all the 1,600+ items (which varied in size from several centimeters to more than three meters) and their photographs was extremely important. EndNote was used to create a database of the book and journal items**Results:** The end product was an elegantly-crafted CD containing images of all the items in PowerPoint files as well as bibliographies of the book and journal items that could then be used for appraisal purposes.**Conclusion:** The use of fairly simple and readily available tools in the creation of the end product demonstrates the applicability of these techniques to all manner of gifts to a library or other such institution.**3:05 p.m.****Good Impenetrable: The Letters of William J. Armstrong****Richard Nollan**, associate professor, Health Sciences Library, University of Tennessee–Memphis**Objective:** In 2005, roughly 100 letters by William James Armstrong were given to the University of Tennessee (UT) health sciences historical collections. They came to UT folded and carefully packed in a painted tin box. Armstrong moved to Memphis after the Civil War to set up a medical practice and to raise a family with his wife, Lula Armstrong. During the two worst yellow fever epidemics of 1873 and 1878, Armstrong

volunteered to stay in Memphis to help those who would not or could not leave. Armstrong's courage despite his powerlessness in the face of this disease is the central theme of this presentation. He moved his family into the country and the letters were preserved by Lula Armstrong.

Methods: The letters contain a firsthand account of the doctor's observations of his work and his patients and his speculations on the nature of the disease. The letters also paint a picture of the day to day life in Memphis and descriptions of those he praised for their courage and those who failed.

Poster

Transforming 50 Cubic Feet of Papers, 4,000 Slides, and 250 Videotapes into an Archive Celebrating the Life and Work of John C. McDonald

Dee Jones, AHIP, head, Cataloging, Medical Library, and **Marianne Comegys**, director, Medical Library, Louisiana State University Health Sciences Center–Shreveport

Objective: This poster will describe the process of assembling an archive consisting of the primary source materials of John C. McDonald and to further utilize those resources as the basis of a Website. McDonald, chancellor of the Louisiana State University Health Sciences Center-Shreveport (LSUHSC-S), is a pioneering transplant surgeon who was instrumental in the establishment of the national organ sharing network.

Methods: Manuscripts of research papers, seminal files of organ transplant organizations, and papers pertinent to McDonald's thirty-year tenure at LSUHSC-S as chairman of the surgery department, dean, and chancellor will be assembled, sorted, arranged, and described according to current standards of archival practice. Slides that accompany his research will be digitized and older formats of audiovisuals will be transferred to CD-ROM. A Website highlighting the various aspects of McDonald's career will be developed using images of materials in the archive. An expert in digitization and Website design will be brought in as a consultant. The presenters will collaborate with the LSUHSC-S Foundation to secure private and public sector funding for this project.

Results: A proposal was presented to the McDonald family, and partial funding has been secured. A digitization consultant visited the site and positively evaluated the project. Hardware and software recommended by the consultant were purchased, as were archival boxes and other supplies. Work has begun on identifying and sorting 4,000 slides, readying them for scanning. Manuscripts, organizational files, lectures, and related materials have been sorted and archival processing has begun. Sections of the descriptive finding aid have been written.

Conclusions: The consultant's report provided reassurance that the proposed McDonald project was feasible and worthwhile. Potential funding sources have been identified to provide the additional monies required to underwrite the construction of the Website. During the preliminary work on this project, a number of historically important manuscripts, documents, and videotapes have been discovered that will assure an intellectually stimulating Website.

Poster

Managing and Disseminating Historical Content via an Archival Knowledge Management Database Application

Christopher Ryland, coordinator; **Mary Teloh**, Coordinator, Historical Collections; and **Jeremy Nordmoe**, coordinator,

Archives, Eskind Biomedical Library Special Collections; and **Qinghua Kou**, health systems analyst programmer, Eskind Biomedical Library Technical Support and Web Development; Vanderbilt University Medical Center, Nashville, TN

Objective: To describe the structure, development, and use of a knowledge-management database application designed to manage internal and external aspects of archival knowledge and content.

Methods: Special collections staff and programmers at a large academic health sciences center library developed a database application to manage, disseminate, and leverage knowledge related to archival and special collections, including internal process management and external deployment of archival knowledge. This application manages each step of the archival process, from maintaining data about individuals and organizations to the appraisal, accessioning, processing, and use of archival materials. Adhering to the library's philosophy of modular application development, which requires easy reuse and targeted integration with existing tools, the database operates in alignment with the library's special collections digital library to allow dynamic generation of archival finding aids and metadata records on a near real-time basis. Furthermore, the incorporation of principles of reuse and interoperability into this and other library-developed tools helps to strategically position the library to address future knowledge, content, and document management needs.

Results/Outcome: The library's modular Archives Content Manager database manages over 1,000 records, which include internal, organizational knowledge as well as publicly accessible knowledge codified in online archival finding aids. This strategy of managing public and private knowledge simultaneously positions the library to respond flexibly to constantly evolving archival and technological environments. The application has also increased the efficiency of the archives' workflow by amalgamating previously disparate information and archival metadata in a single application, allowing one-time editing and global updating. The resulting rapid deployment of large numbers of electronic finding aids has increased the visibility of the collections as well as the number of users.

Evaluation Method: The library plans to deploy the Archives Content Manager in an allied institution to verify the expected cross-repository applicability of the system and adaptability to varying institutional needs. Staff will also continue to monitor efficiency and visibility gains resulting from use of the database.

Poster

Walking and Talking through History: Putting to Use the Archived Materials of a Specialty Nursing Association

Mark Vrabel, AHIP, information resources supervisor, Library, and **Christine Maloney**, administrative assistant, Library, Oncology Nursing Society, Pittsburgh, PA

Purpose: This poster highlights the ways the archived materials of a specialty nursing association have been utilized and promoted, particularly during anniversary celebrations.

Setting/Participants/Resources: The Oncology Nursing Society (ONS) is a national organization of more than 32,000 registered nurses and other health care professionals. ONS maintains an archived collection of project files, photographs, oral history recordings, and other materials of historical significance. These materials are utilized in various ways, especially during anniversary years such as ONS's 25th and 30th anniversaries.

Results/Outcome: Anniversary celebrations were limited in duration to that given year, and the results of all associated activities were documented in official reports completed by the anniversary project team, of which the librarian was a member. Other archives projects are ongoing, such as the oral history interviews, national office display case, and assistance to chapter and special interest group (SIG) histories.

Evaluation Method: Feedback on the “walk through history” was solicited via a comment box placed at the end of the exhibit. The exhibit also received outside media coverage; for example, an article was published in *Nursing Spectrum*. For activities of this nature, much of the feedback is more informal, such as verbal comments from exhibit attendees and viewers of displays.

Brief Description: In 2000 (ONS 25th anniversary) and 2005 (30th anniversary), some ways in which archived materials were used included a “walk through history” exhibit at the annual congress highlighting the society’s growth and achievements (it also included significant social and medical trends/headlines); a supplement to the society’s Oncology Nursing Forum journal documenting the organization’s development (reprinting many photos and documents from the archives); and columns in the society’s ONS News authored by the librarian as well as excerpts from the oral history interview transcripts of ONS past presidents (excerpts also were displayed as captions to hanging portraits in the aforementioned “walk through history” exhibit). Archived materials are put to use outside of anniversary years as well, via rotating displays in the national office, providing photos and research materials for a book on the history of oncology nursing, and assisting ONS chapters and SIGs with their own historical needs.

Technical Services and Educational Media and Technologies Sections

Transforming Scholarly Publishing: The Role of Institutional Repositories

2:05 p.m.

Lessons Learned: Institutional Repositories at an Academic Health Sciences Library

Sandy Tao, NLM fellow, Health Sciences Library, and **Edward Roberts**, head, Health Sciences Library/Systems, University of Washington–Seattle

Objective: Research libraries have increasing responsibility to generate, disseminate, and preserve digital information. This study will report on the challenges, opportunities, and critical issues in DSpace implementation and adoption at a large, academic health sciences library.

Methods: The health sciences library chose and implemented DSpace as a tool for digital repositories in 2004. The major challenges have been lack of faculty engagement, management of intellectual property rights, and administration support. This process has also brought up several critical issues for the library to tackle: collection development policy on digital contents, submission policy, and effective marketing campaign. Moreover, the library administration must address direct and indirect costs of building the institutional repositories infrastructure and set budgets for these core services. This study examines the essential policies, management issues, and technical infrastructure needed to support the submission, peer-review process and maintenance of the system for long-term preservation.

Results: The outcome of the study is a process plan that documents the numerous and complex challenges in the organization, with an overall plan and strategy to address the issues and identify opportunities for the health sciences library in the next phase of repository development. Institutional repositories have potential to reshape scholarly research, provide access to unpublished materials, and establish alternatives to the high costs of traditional publications. Libraries need to take a proactive approach to support this effort.

2:25 p.m.

An Overview of Institutional Repositories: Issues and Questions for Medical Libraries

Thomas Singarella, professor, chair, and director, and **Lois Bellamy**, associate professor and coordinator, Electronic Services, Health Sciences Library and Biocommunications Center, University of Tennessee Health Science Center–Memphis

Purpose: To present an overview of the issues related to establishing an institutional repository (IR), including what the state of IRs is today and what is currently happening in the field. This paper is written from the perspective of how academic health sciences libraries might (or might not) develop an IR for their institution and the relevant questions that should be answered before doing so. A literature review forms the basis of the paper and presents a broad-brush stroke on select issues. Depending on whether you are a librarian, administrator, researcher, clinician, publisher, vendor, author, or teacher, your view of an IR may be different. The presenters will report on the development, use, and decline of a demonstration digital repository server using Eprint software to facilitate faculty self-archiving articles on a library based digital repository at the health sciences center. The Eprint software that was mounted in late 2004 will be provided as an example of why “build it and they will come” will not work in establishing a digital repository for an academic health science library, and research from the literature will be presented to support this finding.

Results: Anecdotally, the investigators simply monitored usage and articles deposited on the site. The investigators learned that faculty self-archiving of articles does not work, and this was supported by the literature. Few faculty used the library demonstration server to self-archive articles. Lessons learned from using open-source software will be outlined. A list of questions to ask before establishing an IR will be discussed and specific questions that must be answered before mounting an IR. The investigators found that those medical libraries that are connected to a main campus library that already have an IR mandate and effort underway were among the most successful in implementing their own IR.

2:45 p.m.

Institutional Repositories: What if You Determined Needs Before Building it?

Janis F. Brown, AHIP, associate director, Systems and Information Technology, Norris Medical Library; **Deborah A. Holmes-Wong**, project manager, Information Development and Management, Digital Information Management; and **Sara R. Tompson**, science and engineering team leader, Science and Engineering Library; University of Southern California–Los Angeles

Objective: Many academic institutional repositories (IRs) followed a philosophy of “if we build it, they will come,” then

found it difficult to collect items from researchers. Therefore, the institutional repository task force decided to first conduct a needs assessment to gain a better understanding of how faculty disseminate research, to determine faculty receptiveness to IRs, and to gather faculty input as to IR features of most interest.

Methods: From spring through fall 2005, the task force conducted a needs assessment including the following steps:

- conduct a literature search of IR needs assessments
- identify faculty who were cited frequently, young faculty, and owners of existing repositories from which to select interviewees
- develop interview questions to elicit from faculty their research dissemination and collaboration methods, open access requirements of funding agents, and nature and importance of supporting documentation
- interview twelve faculty from various disciplines using interview teams
- from interview findings, develop case examples
- identify other faculty from various disciplines for focus group sessions
- hold four focus group sessions
- summarize findings to develop specifications for the institutional repository
- meet with information technology (IT) staff throughout process to keep pace with investigation of potential IR packages

Results: The interviews and focus groups provided an overall view of faculty needs, although the sample size was too small to determine the pervasiveness of the attitudes. Of potential IR features, faculty are most interested in secure long-term storage of research data with persistent links, rather than in making scholarly publications openly available. The university has a “digital divide” that also affects attitudes towards IRs. Faculty members were interested in features that would help in their research and less interested in features that would require effort on their part with little immediate benefit. The needs assessment was an important step, and the methodology worked well. Without first determining needs, universities will continue to build IRs with features that faculty will be reticent to use. Perhaps if IRs begin with meeting their needs first, then eventually they will be interested in the broader vision of open access to scholarly publications.

3:05 p.m.

A Medical Library Spearheads a Campus-wide Institutional Repository Initiative

Valeri Craigle, digital initiatives librarian; **Mary Youngkin**, assistant director, Information Services; **Joan M. Gregory**, librarian, Technical Services, and **Shona R. Dippie**, metadata and cataloging specialist; Spencer S. Eccles Health Sciences Library, University of Utah—Salt Lake City

Objective: Removing barriers to scholarship and preserving it over time is a major challenge facing higher education today. Institutional repositories (IRs) provide one solution to the problem, and many libraries, primarily academic, are engaged in their development. As purchasers and archivists of some of the most progressive—and expensive—information in the world, medical libraries have firsthand knowledge of the impact of the scholarly communications crisis. This unique perspective makes medical libraries prime candidates for leading institutional repository initiatives. This paper will report on a medical library’s experience in spearheading a campus-wide IR initiative.

Methods: Understanding the need to improve access to information, medical librarians—armed with specialized knowledge of copyright, publisher’s practices, and digital assets management and an acute awareness of faculty needs—organized a campaign to collect, archive, and disseminate the intellectual capital at a large university. The medical library organized a working group of librarians across campus and established a highly effective collaboration with state library consortia. A publications management service was created, a metadata best practices document was developed, a database was built and linked to a Website, and a promotional and educational campaign were developed to disseminate information about the IR initiative.

Poster

The Bioethics Digital Library: Best Practices Evolving from Ground Zero

Amy J. Hatfield, liaison, Bioethics, Ruth Lilly Medical Library; and **Gabriele Hysong**, student, **Chao Huang**, student, and **Shana Kelley**, student, School of Library and Information Science; Indiana University—Indianapolis

Objective: To acquire or borrow collections for digitization and inclusion in the Bioethics Digital Library (BEDL). Targeted content includes, but is not limited to, “classic texts” in bioethics; court decisions and legislation; government documents; the “gray” literature (conference abstracts, presented papers, professional meeting minutes, etc.); full-text journal articles; and both audio and visual materials. The scope will include domestic and international content. The technical goals for managing and maintaining the digital content in BEDL include:

- commitment to open access (no toll)
- compliance with open archives initiative metadata harvesting protocol
- preservation of master digital surrogates
- perpetual “usability”
- persistent universal resource identifier (URI)

Methods: A test case, the National Commission for the Protection of Human Subjects in Biomedical and Behavioral Research meetings minutes and transcripts, were borrowed from the University of Texas Medical Branch, Blocker History of Medicine Collection, and digitized. The encountered processes and experiences produced necessary “best practices” pertaining to:

- collection audit
- materials processing and preparation
- scanning and optical character recognition
- copyright research
- metadata assignment and indexing
- content organization in the digital library framework (DSpace platform)
- marketing

Theme: Education and Outreach

Educational Media and Technologies and Medical Library Education Sections

Virtual Classroom: Demonstrating the Use of Distance Learning Technologies

2:05 p.m.

Evidence-based Medicine for the Remote Student: A Demonstration of the Classroom Across Distances

Janette Shaffer, AHIP, associate director, Dahlgren Memorial Library; **Steven M. Schwartz**, director, Predoctoral Education, and Associate Professor, Department of Family Medicine; and **Tracie Frederick**, assistant director, Education Services, and **Jane L. Blumenthal, AHIP**, library director and assistant dean, Knowledge Management, Dahlgren Memorial Library; Georgetown University Medical Center, Washington, DC

Purpose: Some courses in the medical school curriculum require students complete their community preceptorships off campus. Despite being scattered geographically across several states, remote learners are required to have access to training opportunities equivalent to those of on campus students. This demonstration will show how we use Web-conferencing to meet the challenge of teaching an evidence-based medicine (EBM) workshop to remote participants.

Objectives: Following this Web-conference demonstration, participants will be able to:

- recognize various methods of conducting workshops via distance technology
- explain the use of Web-conferencing as an option for hosting small-group learning for remote students
- participate in a Web-conferenced learning environment
- list practical applications for their own small group learning activities

Methodology: We will set up a virtual classroom with session participants acting as the remote students. One presenter will facilitate the discussion from within the session room, while two presenters will join the session remotely to discuss and demonstrate the features of a Web conference.

Results: Web-conferencing technology has afforded us a way to provide an equivalent learning experience for students who are off-campus to complete their community preceptorships. Although students are able to actively participate in the required EBM workshop, we still need to overcome some challenges to improve the workshop experience for students. The dependency on a solid high-speed Internet connection along with the difficulties students experience in mastering the software are persistent challenges to a successful remote session.

2:25 p.m.

Are Medical Students Happier Online? Teaching and Learning PubMed Skills without Entering a Classroom

Laura M. Schimming, information and education services librarian, Gustave L. and Janet W. Levy Library, Mount Sinai School of Medicine, New York, NY

Objective: To determine if medical student satisfaction and achievement increases when a required introduction to PubMed course and assessment is offered entirely online.

Description: Medical students were separated into two groups by class year. One class attended PubMed workshops taught by librarians in a traditional classroom setting. The other class

completed the PubMed class entirely online, through a Web-based tutorial designed by librarians. Both groups completed an online PubMed skills test and a course evaluation through WEB-CT. Course evaluations, student comments, and test scores were analyzed and compared for both groups. The hypothesis is that students who completed the online training will be more satisfied with the course.

Results: Although the coverage and content of the 2 courses were identical, students who received the online training were more satisfied with the course as a whole: 67% submitted positive evaluative comments compared to 41% of those who attended the traditional classes. Similarly, students who completed the traditional course were more likely to submit negative comments: 20% compared to 6% of the students enrolled in the online course. The course format had no effect on the level of content mastery. The average quiz score for both groups of students was the same (91%). Comments from the students who received online training suggest that the increased control and individual engagement with the Web-based content led to their greater satisfaction with the course.

2:45 p.m.

Breezing Through Online Instruction: Two Case Studies

Katherine T. L. Vaughan, assistant librarian, Health Sciences Library, University of North Carolina–Chapel Hill

Objective: The teleconferencing program Macromedia Breeze has been used and evaluated for effectiveness in teaching library resources and information literacy to two different populations. In one case, librarians from around the state have been introduced to equivalent online training to a face-to-face workshop; in the other case, students at a distant campus received simultaneous instruction with their local peers.

Methods: The Breeze program has been used in two major projects. Both were designed to improve outreach to distant learners on information literacy topics. First, the library provided online learning modules based on a day-long workshop to public and academic librarians. These modules teach how to find health information via the statewide consortial program. Participants were asked to respond to two surveys; the same survey as is given at the day-long workshop and an additional survey designed to address level of comfort with the online environment. These surveys will demonstrate whether moving content into Breeze succeeds compared to the standard, face-to-face paradigm. Second, first-year pharmacy students at a distant campus received simultaneous instruction via Breeze with their on-campus peers. Results from the lab assignment were compared to determine if teleinstruction affected learning outcomes.

Healers and Healing

Consumer and Patient Health Information and Chiropractic Libraries Sections and African American Medical Librarians Alliance SIG

Promoting Patient Safety

2:05 p.m.

Clinical Pathways for Hospitalists at Bellevue Hospital Center

Tania P. Bardin, AHIP, assistant director, Affiliated Libraries, and **Dorice L. Vieira**, clinical librarian and associate curator, Ehrman Medical Library, New York University School of Medicine–New York, and **Douglas B. Bails**, clinical assistant professor, and **Michael C. Brabeck**, clinical assistant professor, School of Medicine, Bellevue Hospital Center, New York, NY

Objective: To evaluate the impact of developing clinical pathways on patient safety at the oldest urban teaching hospital in the United States by analyzing hospitalists' and residents' use Web pages and electronic library services. Working with the hospitalist's medical director and a primary care attending physician, two librarians participated in developing a new Web-based library program.

Methods: The presenters will describe their experiences in testing search strategies, evaluating results, and communicating with physicians and will draw conclusions for future efforts of clinical and nonclinical content delivery to hospitalists through Web-based formats. Hospitalists were asked to identify the most frequent and common diagnoses at the hospitals' inpatient clinic to plan and implement services for them. Librarians developed a search strategy and conducted literature searches on the diagnoses. After an initial search, these search strategies were analyzed by the hospitalists who provided feedback to the librarians to develop a "gold standard" search strategy. The ultimate goal is to promote patient safety through the new library program. Automatic alerts on the topics are emailed to the hospitalist medical director for keeping the pathways current.

Results: Eighteen clinical topics were chosen by 2 hospitalists. Out of the 18 topics, a total of 9 searches were conducted. Librarian C conducted searches on 4 topics including: congestive heart failure, sepsis, liver cirrhosis, and ethyl alcohol withdrawal. Librarian D conducted searches on 5 topics including: pneumonia, cellulitis, acute coronary syndrome, hypercalcemia, and sepsis. A total of 361 references were selected for the 9 topics by the librarians. The hospitalists selected 64 out of 361 references or 18% for inclusion on the hospitalist Website. Hospitalist A selected 16% of the references; Hospitalist B selected 10% of the references. The hospitalists selected 37 out of 195 or 19% of the references for searches conducted by librarian C, with 17 years' professional experience. The hospitalists selected 27 out of 166 or 16% of references for searches conducted by librarian D, with 10 years' professional experience.

2:25 p.m.

Personal Digital Assistants: A Prospective Tool for Enhancing Patient Safety

Joanne V. McHugh-Romano, database consultant, HAM-TMC Library, Houston Academy of Medicine–Texas Medical Center Library, Houston, TX

Objective: To determine if the use of personal digital assistants

(PDAs) by health care professionals has:

1. enhanced patient safety in the areas of diagnosis and treatment
2. augmented clinical decisions made in the practice of evidence-based medicine (EBM)
3. expanded the role of health sciences librarians

Methods: A systematic review of literature from 2002 to 2005 documenting PDA use among health care professionals, safety of PDA drug software, and a diary of PDA use by a rural physician will be used to construct the findings of this report. The review includes a study by Galt, Rule, Young, Remington, and the Creighton University School of Medicine and School of Pharmacy and Health Professions in May 2005, to evaluate the reliability of PDA drug information for patient care. Evaluations were based on physician-approved quality points and ratings of three PDA drug information sources. This paper also examines research by Dee, Teolis, and Todd (2005) regarding PDA impact on clinical decision making, as well as Baumgart's (2005) overview of PDA applications in the medical field.

2:45 p.m.

Integrating Library Expertise in the Development of a Patient Tool to Foster Informed Decision Making and Participatory Health Care

Julie Beauregard, health information analyst, Eskind Biomedical Library; **Jim Jirjis**, director, Adult Primary Care Center; and **Taneyia Koonce**, assistant director, **Shannon Potter**, librarian, and **Nunzia B. Giuse, AHIP, FMLA**, director, Eskind Biomedical Library; Vanderbilt University Medical Center, Nashville, TN

Objective: To facilitate patients' involvement in their own health care and enhance communication with patients, the medical center and library are developing a comprehensive, secure patient Website to allow patient access to test results, billing and appointment information, and, via library-provided links, evidence-based health information.

Methods: The library has long worked in partnership with multidisciplinary teams to provide information at the time and place of need. As partners in the medical center's recent work to revolutionize its existing patient Website, the library is extending its tailored information delivery approaches to the patient community, providing links to vetted, authoritative health information about chronic diseases, preventive medicine, and diagnostics. Librarians also work in conjunction with clinicians, developers, and patient users to explore optimal means for the delivery and representation of health information to the lay audience and for promoting the coaching model of health care. Such integration of librarian expertise in medical center applications is an integral part of the library's strategies to support informed decision making and patient safety. Moreover, the project enhances the library's standing as a valued partner and strategist in the institution's evidence-based practice initiatives.

Results: Incorporation of disease information is aligned with practice areas of clinics in which the portal has been deployed. Preventive topics are selected based on US Preventive Services Task Force recommendations, complemented by additional topics of significant public health importance. Librarians map authoritative consumer-focused information to billing codes in the patient record using International Classification of Diseases (ICD 9) codes, allowing patients to seamlessly access health information directly relevant to their particular conditions.

The library monitors usage statistics and patient and clinician feedback to evaluate and refine health information provided. This strategy of aligning library-provided evidence with informatics initiatives reflects the library's ongoing emphasis on promoting evidence-based health care through leveraging synergies sparked by the library's expertise in critical appraisal and filtering of information, the expertise of informatics teams' in designing applications integrated into health care workflow, and the needs of clinicians as they engage patients as partners in their own care.

3:05 p.m.

An Evidence-based Approach to Development of a Patient-centered Website

Douglas L. Varner, AHIP, clinical informationist fellow; **Kathleen Burr Oliver**, director, Communication and Liaison Services; and **Nancy K. Roderer, AHIP**, director, William H. Welch Medical Library, Johns Hopkins University School of Medicine, Baltimore, MD

Objective: Most consumer health-related Websites currently active on the Internet use a top-down taxonomic hierarchy to guide users to relevant information resources. This hierarchical arrangement presents retrieval challenges for the consumer who may not have a familiarity with the terminology used in the hierarchy vocabulary links. In addition, this type of organizational array leads to hierarchical complexity through which the consumer is required to navigate to access information. This study was conducted to develop a Website that mirrors informational needs of patients requiring reference resources relating to breast cancer.

Methods: An evaluation of the literature was conducted to develop an evidence-based framework for organizing information on the Website based on the patient's perceived information needs. The top-level hierarchy appearing on the opening page was configured using a question format based on evidence from the literature relevant to the types of questions that patients diagnosed with breast cancer posed as an information need. This presentation will describe the question format and content from the opening page of the Website, additional hierarchy launched from the top-level questions, and the unique functionality developed for delivery of content relating to the topic of breast cancer.

Federal Libraries Section and Outreach and African American Medical Librarians Alliance SIGs

Arizona to Zimbabwe, Afghanistan to Vermont

2:05 p.m.

Blogging to Empower

Siobhan Champ-Blackwell, community outreach liaison, National Network of Libraries of Medicine MidContinental Region, Health Sciences Library, Creighton University, Omaha, NE, and **Elizabeth Kelly**, assessment and evaluation liaison, National Network of Libraries of Medicine MidContinental Region, Bernard Becker Medical Library, Washington University, St. Louis, MO

Objective: A regional medical library wanted to support librarians who work with community organizations and to provide health information resources and opportunities to community organizations focusing on health concerns. They

devised a method that met the unique needs of those providing outreach to the underserved to empower them to take action by using health information resources.

Methods: Weblogs (blogs) are fairly new tools being used successfully in libraries to communicate with patrons. A pilot blog project was developed that included several tools to assist in archiving and searching for posts and allowed an online subscription signup, as well as provided a really simply syndication (RSS) feed. To lessen the impact of possible email overload, an informal digest list was created and is maintained for those who want a single daily reminder email. Several email discussion lists were harvested to populate the blog with posts that serve the real needs of community health issues of underserved populations. The blog was promoted at local and state conferences, through email discussion lists and regional newsletters.

Results: Feedback about the blog was received through emails sent to the blog owner and by viewing the original blog posts on other email discussion lists. Comments were coded by how the posts were used (awareness, sharing, etc.), and categorized by the type of reader (medical librarian, community-based organization staff). Feedback was used to determine which types of postings and sources of information were most useful.

Conclusions: The blog has had an impact on its readers and their organizations. The postings are used to increase knowledge on health issues for communities, especially underserved, to locate funding opportunities, provide recognition for the organization by sharing information with colleagues, create programs and more. Creating a blog that has a specific purpose, relies on reader feedback for continual assessment and makes use of the feedback to determine appropriate sources of posting material can be a powerful tool for a library.

2:25 p.m.

Development of a National Library of Medicine Training Program for Pan American Health Organization Librarians

Lidia Hutcherson, NLM associate fellow, Library Operations Division, and **Stacey J. Arnesen**, advisor, Special Projects, Specialized Information Services, National Library of Medicine, Bethesda, MD

Objective: To train Pan American Health Organization (PAHO) librarians to use National Library of Medicine (NLM) information resources. PAHO has thirty-six documentation centers in twenty-eight Latin American countries, managed by librarians. Each center serves the information needs of health care professionals in their respective countries. A training program was developed and presented to them at the Ninth World Congress of Health Information and Libraries.

Methods: A needs assessment tool was developed, translated, and distributed to PAHO librarians to determine their skills and needs in using NLM health information resources. The tool consisted of twenty-five questions in four categories: audience skill level, technological infrastructure, training needs, and language requirements. The analysis of the data was used to design a bilingual training program to improve PAHO librarians' capacity to use these products and disseminate knowledge to their user community.

Results: Topics most commonly investigated by PAHO librarians include chronic diseases, HIV/AIDS, and environmental health. Most librarians used PubMed and MedlinePlus, but fewer than

30% used other NLM resources. Most PAHO librarians stated that an NLM information products training program would be beneficial. NLM conducted a one-day training course at the 9th World Congress on Health Information and Libraries.

Conclusions: The post-training evaluation indicated that the training course was well received. During the course it became apparent that knowledge of NLM resources was less than anticipated. Although one day was insufficient for in-depth training, the PAHO librarians now have a solid foundation in PubMed and MedlinePlus and familiarity with other NLM databases, including TOXNET, NLM Gateway, and PubMed Central. Future needs assessments should be conducted to probe additional needs and levels of understanding. The PAHO librarians also indicated that providing NLM information in other languages, particularly Spanish, would be advantageous.

2:45 p.m.

Information Needs of Overseas Federal Facility (OFF) Staff and Partners

Robert Swain, trainee, Division of Health Sciences Informatics; **Kathleen Oliver**, associate director, Communication and Liaison Service, Welch Medical Library; **Harold Lehmann**, associate professor, Division of Health Sciences Informatics, and **Nancy Roderer**, director, Welch Medical Library; Johns Hopkins, Baltimore, MD; and **Jocelyn Rankin, AHIP, FMLA**, chief, CDC Information Center, and **Teresa Hammett**, epidemiologist, Centers for Disease Control and Prevention, Atlanta, GA.

Objective: To describe the information needs of public health practitioners and their partners in two international remote-field locations.

Methods: Information needs assessments were performed at federal public health facilities. Scripted one-on-one interviews were conducted at each site using open- and closed-ended questions as well as the critical incident technique. Local site assessments were also conducted to assess current and future information access capabilities. The working hypothesis of the assessment is that information needs are not being met. In addition, information related to the care, treatment, and surveillance of HIV and AIDS will be requested. A system will be needed that would provide simple and quick access to information without requiring active searching. Access to electronic resources will depend on available Internet speeds; slower speeds causing frustration and lack of use.

3:05 p.m.

Country of Origin Library Experiences of International Medical Faculty, Researchers, and Students: Implications for Medical Libraries in the United States

Arpita Bose, clinical support librarian, Norris Medical Library, University of Southern California–Los Angeles

Objective: How do international medical faculty, researchers, and students perceive the library, based on their experiences with libraries in their countries of origin? How do their past experiences affect their expectations and use (or non-use) of medical libraries in the United States? How can US medical libraries transform their information services to improve service to international health care professionals?

Methods: The settings are an academic health sciences center and a children's hospital. Study participants at both facilities include a number of international medical faculty, researchers, and students. A qualitative interview queries participants on

their experiences with libraries in their countries of origin.

The interviews gather information about public, academic, and hospital libraries. Participants are asked for their expectations of medical libraries in the United States as well as their use (and non-use) of US medical libraries.

Results: Methodology and results analyze the experiences and perceptions of medical libraries as reported by international faculty, students, and staff. Recommendations are proposed to improve services and resources for international patrons.

Pharmacy and Drug Information Section

EMBASE.com Lecture: Exploring the Boundaries Between Indigenous Healing and Contemporary Biomedicine

2:00 p.m.

EMBASE.com Lecture: Exploring the Boundaries Between Indigenous Healing and Contemporary Biomedicine

Lewis Mehl-Madrona, associate professor, Family Medicine, College of Medicine, Royal University Hospital, University of Saskatchewan–Saskatoon, Canada

Description: This presentation will address different perspectives on healing, from aboriginal to contemporary biomedical. The presenter (www.healing-arts.org/mehl-madrona/) will consider the different ideas about the person, about mind and body, and about healing that these systems pose and how these different medical systems can be integrated. The presenter will explore through story and the use of the narrative process, how healing can occur in the lives of specific individuals and how transformation (including spiritual) is related to healing and cure. The presenter will consider how information about these practices can lead to improved health care and lessen the gap in health disparities among different populations and how health care providers can learn about traditional, aboriginal, and indigenous practices in ways that are sensitive, nonintrusive, and respectful.

Theme: Leadership and Professional Development

Leadership and Management Section, Corporate Information Services, Health Association Libraries, and Technical Services Sections and Lesbian, Gay, Bisexual, and Transgendered Health Sciences Librarians SIG

Managing Change

2:05 p.m.

Transformational Skills in a Perpetually Changing Information Landscape

Brian Bunnett, AHIP, deputy director, and **Jon Crossno, AHIP**, resource development librarian, Library, The University of Texas Southwestern Medical Center–Dallas, and **Regina Lee**, senior information research specialist, Information Resources, Mary Kay, Dallas, TX

Question/Situation: Librarians, at some point in their careers, are certain to take on responsibilities that are of an altogether different character from any of their previous work experiences. This paper will report on the need for information professionals to utilize transformational skills in a perpetually changing

information landscape.

Setting/Participants/Resources: Each of the authors has experienced change in an individual library setting, between types of libraries and in geographical locations. By examining their personal experiences when they changed job titles, task requirements, and/or career paths, they determined skills and competencies not acquired in graduate school or subsequent professional development were often needed to effectively manage the change.

Methods: Several library associations have produced “core competencies” that are transferable from position to position, but many of these are transactional (i.e., task-oriented) in nature and are typically learned in library school or on the job. However, transformational skills (i.e., change-oriented) are also needed and should be emphasized, especially in a library environment that is evolving so rapidly. Examples of transformational skills include lifelong learning, adaptability, flexibility, openness, creativity, and initiative, which often are either learned haphazardly or ignored altogether.

Main Results: Future discussions of core competencies should address both transactional and transformational skills, especially those not learned in library school. To identify a starting list of such skills, a brief survey was distributed to targeted groups of local librarians, and the results will be reported.

Conclusion: The authors hypothesize that core competencies for medical librarianship, including both transactional and transformational skills, should be developed. More detailed research is warranted to generate a complete list of skills. This could also have implications for broader areas of librarianship.

2:25 p.m.

The Library's Role in Transforming the Curriculum of the School of Medicine

Lisa K. Traditi, AHIP, dead, Education and Learning Resource Center, Denison Memorial Library, University of Colorado and Health Sciences Center—Denver

Objective: Can librarians evolve to make a lasting difference in a complete curricular transformation in the school of medicine?

Methods: In the fall of 2005, the school of medicine started a new curriculum, including an informatics and evidence-based medicine thread. The thread director, a physician, and the library's education department developed and integrated content appropriate lesson plans into the curriculum at appropriate times throughout the first year. Challenges are:

- coaching library faculty to evolve from providing “one-off” sessions to a series of “just in time” learning opportunities at the correct curricular learning moment
- learning to assist in the learning of medical school faculty who are themselves being introduced to new information skills
- using qualitative evaluation methods to continuously improve educational sessions

The librarian team works in tandem with the thread director to develop lesson plans and learning goals appropriate for each stage of the medical curriculum. Online tutorials, hands-on computer lab sessions, and assignments designed to reinforce newly learned information-seeking skills have been built into the curriculum. Plans are underway for curricular integration of further knowledge and skills in the second year and beyond.

2:45 p.m.

Reaching New Levels

Jane Fama, associate director, Access Services, and **Elaine Russo Martin**, director, Library Services, and director, National Network of Libraries of Medicine New England Region, Lamar Soutter Library, University of Massachusetts Medical School—Worcester

Objective: How do we manage support staff development in the modern health sciences library? Increasingly, the need for more highly skilled staff is evident. As professional librarians develop new skills and take on the challenges of our evolving profession, attention to support staff is crucial.

Methods: The management team gathered information from library literature and business and government sources as a starting point. The team posed questions as the foundation for developing a holistic plan, based on competencies, to manage support staff development. What will support staff be doing in the future? Can we define the competencies (knowledge, skills, attitude) staff will need? How do we create a flexible system that keeps us poised to respond to change? How do we build a work force with the skills they will need and prepare the staff we already have to take on new tasks? Can we reformat our job descriptions to reflect competencies? How do we develop a measurement framework allowing for objective employee evaluation? How do we ensure a growth plan for employees? Can we translate this plan into something that is compatible with our human resources department? This paper describes how a public sector academic library addressed these questions.

Results: The management team identified five basic competencies for support staff. These competencies, in addition to education and years of service, formed the basis for a plan detailing the progression of an employee from an entry position to the position of para-librarian. The managers identified task-based areas of responsibility, corresponding to competencies, within and across their departments. Areas were divided into achievement stages with specific competency-based frameworks detailed to provide objective employee evaluation. Finally, the policy for employees' advancement through the stages and levels, based on performance in multiple areas of responsibility, was developed. The policy allows for employee growth and promotion, and encourages staff to build a knowledge base in information services, access, retrieval, and organization. The team developed this plan to compliment the library's strategic plan. With administration's support and library staff buy-in, the next step is to incorporate the plan into the medical school's existing salary/grading system.

3:05 p.m.

Incorporating Knowledge Management in an Academic Health Sciences Library to Meet Evolving Customer Needs

Pamela Bradigan, associate director, and **Ruey L. Rodman**, instruction services coordinator, Prior Health Sciences Library, The Ohio State University—Columbus

Objective: This paper identifies how knowledge management services, such as on-demand help for personal digital assistants (PDAs) and laptops, expanded instructional services, and self-help online tools were fully integrated in a traditional academic health sciences library's public services.

Methods: The Prior Health Sciences Library at The Ohio State University formed a partnership with the Center for Knowledge

Management and the medical center information systems help desk to better serve primary customers which include students, faculty, and staff in the colleges of medicine, nursing, dentistry, optometry, and public health; the school of allied medical professions; and five teaching hospitals. The new service concept, space renovation plans, processes, and resources employed to make this dramatic physical and philosophical change in public services will be described including the successes and the lessons learned.

Results: Statistical data will be presented to highlight the changes having the most significant impact. Recommendations for future initiatives will be included.

Poster

The Changing Face of Work: Flextime and Flexplace

Valerie St. Pierre Gordon, AHIP, head, Cataloging, and Staff Development Officer, and **Susan C. Corbett, AHIP**, systems development librarian, Lister Hill Library of the Health Sciences, University of Alabama–Birmingham

Objective: To describe how faculty and staff in academic health sciences libraries use flexible scheduling and telecommuting in their workplace and to document some of the perceived benefits and drawbacks to these arrangements.

Methods: Descriptive survey to provide information about the opportunities for and prevalence of flexible scheduling and telecommuting in academic health sciences libraries. Examples of flexible scheduling include flextime, compressed work schedules, part-time employment, nine-month appointments, and job sharing. Categories of telecommuting include full or part-time telecommuting, regularly scheduled or occasional telecommuting, and local or long-distance telecommuting. Perceived benefits of these arrangements include recruiting and retaining good staff, reducing absenteeism, increasing productivity, improving morale, engendering loyalty, and demonstrating trust. Some of the perceived drawbacks include limited contact with colleagues, reduced sense of connection with the larger organization, lack of visibility and negative impact on promotion, and lack of distinction between work time and off time. The survey will also provide information on the types of library positions that are more or less likely to allow flexible scheduling and telecommuting.

Results: Forty-nine academic health sciences libraries responded to the institutional survey on flexible scheduling, working remotely, and telecommuting. The most prevalent forms of alternative work arrangement allowed were flextime (36 libraries), working remotely (35), and part-time employment (20). The least prevalent were compressed work week (18 libraries), telecommuting (15), job sharing (5), and 9-month appointments (2). Work/life balance, family care, and focus on projects without interruption were the most cited reasons for choosing these arrangements. Increased employee satisfaction was the greatest benefit for all 3 arrangements, with difficulty scheduling meetings listed as the greatest drawback. Those libraries that did not allow these arrangements cited institutional restrictions, lack of staff interest, or coverage issues as the primary reasons. A separate survey polled library staff members who participated in these arrangements or worked with others that did. The 106 responses received from this survey supported and augmented the results of the institutional survey.

Poster

Our Challenge for the Future: Library Reorganization

Beverly Gresehover, associate director, Resources; **Alexa Mayo, AHIP**, associate director, Services; and **M.J. Tooley, AHIP**, executive director; Health Sciences and Human Services Library, University of Maryland–Baltimore

Objective: This poster will report on the strategies, processes, and tools used to plan and implement the reorganization of a large, academic health sciences library with seventy-five full-time equivalents (FTEs). Challenges and opportunities facing a library-wide reorganization will be presented.

Methods: The reorganization team began in fall 2004 to assess the library's goals, staffing, and workflow to create a responsive organizational structure that reflects a changing environment. Over three months, members of the team facilitated twenty-three large and small focus group-style interviews with staff to assess the challenges and opportunities in a new model. The interview team developed questions to learn about the evolving roles of staff and ways work activities could be changed to enhance productivity and improve work life at the library. To develop the new structure, the planning team analyzed the interview data, along with library statistics, trends for future work, workflow models, and departmental planning recommendations. Implementation of the new structure began in July 2005.

Results: Implementation of a new organizational model for the library occurred in stages and continues today. In July 2005, the library moved from a structure in which work was organized among three divisions—resources management, information and instructional services and access services—into two divisions, resources and services. Collection management (shelving), collection development, interlibrary loan, and reserve processing proved to be the most difficult activities to place in the new structure, given that they have both public service and behind-the-scene components. In July 2006, a team will begin to evaluate the success of the organizational changes. Library staff will be invited to participate in an anonymous online survey to gather input about the changes. Based on survey results, focus groups and other group discussions will also be planned.

Poster

Outcomes and Measurable Indicators Drive the Logic Model Approach for a Liaison Program

Neville D. Prendergast, associate director, Communication and Outreach, and **Elizabeth Kelly**, associate director, Information Technology and Library Systems, Bernard Becker Medical Library, Washington University School of Medicine, St. Louis, MO

Objective: Library staff initiated an effort to transform services through an outreach program that meets the users in their workplace because they are not coming to the library. Using an evaluative logic model approach, the library developed a set of program goals and methods of assessment for carrying out activities of the liaison program. This project demonstrates that collaborative planning enables the library to transform its services by tracking activities and judging the effectiveness of the new service to library users.

Methods: Library liaison programs require consideration of the service needs of user groups and the contributions of the librarian provider group. Knowledge of user needs and a set of activities to provide service are not sufficient. The goals and objectives of the program must focus on these needs, and relevant outcomes

and measures of success need to be in place. The professional library staff met in a series of collaborative sessions to arrive at a logic model that articulates the program goals, determines the desired outcomes, and outlines “best” indicators of progress. This approach of plan backward, implement forward produced a logic model for the program that combined the suggested elements.

Results: The liaison program has benefited and will continue to benefit from careful tracking and reporting of activities based on desired goals and outcomes, regular meetings to discuss activities and progress, and a retreat during which we examined contributors to successful relationships. Salient points realized thus far:

- there are values that users hold
- there are traits that build successful partnerships
- there are librarian actions and activities that foster success in establishing and maintaining partnerships

Reported program activities and services indicate that logic model goals and outcomes are beginning to be met.

Conclusions: Successful liaison programs depend on building lasting partnerships with individuals and groups. The plan backward, implement forward logic model allowed us to establish our goals and the outcomes we sought and to define the indicators of success. We deliver value by building on our understanding of sound partnerships while continually reviewing and revising services designed to achieve our goals and outcomes.

Poster

Full Coverage: An Expanded Role For Medical Librarians as Part of a Health Care Team to Address Issues of Health Literacy

Elizabeth K. Hill, AHIP, assistant professor and reference librarian, University of Idaho Library, University of Idaho–Moscow

Objective: Medical librarians are currently involved in health information provision for patients through membership on patient education committees and through their own library services.

More can be done to assist in the fight against low health literacy, which has not been adequately addressed by efforts that seek to increase literacy, improve communication between providers and patients, or make patient education materials more linguistically and culturally appropriate. To be health literate, an individual must not only be able to read and comprehend health information, but must also be able to negotiate the health care system.

Methods: “Full coverage” services would engage staff from medical libraries, patient education departments, and social services departments and, acting as a team, provide needed health information and assistance in negotiating the health care system that would start at admission and continue to be available to the patient for assistance after discharge back into the community.

This proposed model would create an expanded role for medical librarians and could serve to more adequately address the issue of how to develop an informed patient and to provide another opportunity for an inroad into increasing health literacy.

Potential Outcomes: The conceptual framework for “full coverage” services melds the models of patient advocacy, of “wrap-around” services, and of health information literacy. Interventions to address health literacy concerns would be instigated at the first determination of need, which could include health literacy assessment, provision of “just in time” culturally and linguistically appropriate health information, information and referral services, outpatient health education in the patient’s home, and continued follow-up services in the home or community as needed. Through collaboration with patients in an individualized health information literacy plan of intervention, they will become better informed and more empowered, with an increased sense of self-efficacy.

Relevant Issues Section and Lesbian, Gay, Bisexual, and Transgendered Health Sciences Librarians SIG

Transformation Begins with a Single Step...

2:05 p.m.

Refugee Health Information Network and the Role of the Medical Librarian

Gale A. Dutcher, head, Office of Outreach and Special Populations, and **Stacey J. Arnesen**, advisor, Special Projects, Division of Specialized Information Services, National Library of Medicine, Bethesda, MD, and **John C. Scott**, president, Center for Public Service Communications, Arlington, VA

Objective: Many of the thousands of refugees entering the United States each year come from areas where disease is rampant and health care minimal. The two major objectives of this project are: (1) development of a source of multicultural, multilingual health information for refugee caregivers and their patients and (2) creation of an electronic network for resource review among state agencies and providers.

Methods: Locating high-quality information in many refugee languages can be difficult. Many refugee care clinics resort to using materials created by their staff on an ad hoc basis or to other stop-gap measures. A Web-based application has been designed that supports the development of a robust and collaborative database of reviewed materials. Information will be presented about how this system can foster interaction among clinics and state agencies as part of the materials review process. Documentation, description, indexing, and review of the submitted materials as well as the utility of this network for refugees, immigrants, and other consumers and care providers will be discussed. The essential role of the medical librarian in the design, documentation, and indexing process will also be addressed.

Results: The Refugee Health Information Network Website (www.rhin.org) is currently being used by five states as well as being available to the public. These states and their participating clinics have added their most useful materials. To enhance retrieval, all materials are indexed with Medical Subject Headings (MeSH). In addition, specialty terms not found in MeSH but relevant to refugees have been added. Partner Websites have been identified and will be included in a search capability to allow retrieval simultaneously with those materials in the database. The state refugee health coordinators have identified specific tasks for which they are responsible. Further, discussions have started about expanding the model for content contributors and the

review process to include other types of organizations. Medical librarians have played an important role in introducing and helping to implement the concepts of standardized vocabularies, quality review of materials, usability, and copyright.

2:25 p.m.

Information Services in the Chaos of Disaster: Louisiana Medical Reference in the Wake of Hurricane Katrina

Michelynn McKnight, AHIP, assistant professor, School of Library and Information Science, Louisiana State University—Baton Rouge

Objective: Health sciences librarians have a professional responsibility and obligation to plan for and provide needed information services during and in the wake of communitywide emergencies and disasters. “Disaster planning” to most librarians means protection, recover, and preservation of library collections, but they can do more than that.

Methods: In the days and weeks after Hurricane Katrina, librarians and Louisiana State University library and information science students provided health sciences information services in an 800-bed field hospital in Baton Rouge, in evacuee shelters in several parishes, in a mobile trailer library (with online connections), and in the Ochsner Clinic Library (the only health sciences library in New Orleans that was able to stay open). These are some of the lessons learned about providing important information without the resources that are usually considered essential for service.

2:45 p.m.

Web (Non)Sense: Is Lesbian, Gay, Bisexual, and Transgendered Health Information Missing in Action from the Internet at Your Local Hospital?

Mary Jo Dorsey, AHIP, director, Richard M. Johnston Health Sciences Library, The Western Pennsylvania Hospital—Pittsburgh

Objective: Internet filtering programs applied to institutional networks often prohibit access to lesbian, gay, bisexual, and transgendered (LGBT) literature or Websites in the workplace. This paper describes the findings of a survey of hospital and medical libraries whose Web filters may block relevant LGBT health Websites, effectively limiting gateways to important health care information.

Methods: An email survey consisting of nine questions accompanied by a set of eleven Websites to be tested from a hospital, other medical, or public library-networked computer was completed by a sample of medical and public librarians across the United States, Canada, and the United Kingdom.

Results: Results of this survey show that approximately one out of every five institutions that employ Web filters (such as Websense) to restrict “gay or lesbian or bisexual interest” subject matter from networked computers inadvertently blocks valuable LGBT health information. The Web filters thereby limit pertinent health information resources about this population in settings where it may be needed most.

Conclusions: Initial responses to the survey show a relatively low incidence of filters restricting access to online health information. However, narratives by a majority of the respondents indicate that librarians had encountered blocked sites prior to this survey and had worked with their individual information technology (IT) departments to arrange for “exceptions lists” to unblock health information sites at their respective institutions.

Further investigation is warranted to determine if a “universal exceptions list” or smarter algorithm altogether can eliminate the need for redundant adjustments to Web filters.

3:05 p.m.

Transformations Post Katrina: Lions and Tigers Share a Den

Lynette Y. Ralph, AHIP, assistant professor and assistant director, Sims Memorial Library, Southeastern Louisiana University—Hammond; **Ladonna C. Guillot**, assistant professor and health services librarian, Sims Memorial Library, Southeastern Louisiana University—Baton Rouge; **Marlene Bishop**, acquisitions and collection development librarian, **Carolyn Bridgewater, AHIP**, reference librarian, **Kathryn Kerdolff, AHIP**, reference librarian, and **Maureen Knapp**, reference librarian, Health Sciences Center Library; **Julie Schiavo, AHIP**, dental librarian, and **Elizabeth Strother, AHIP**, head dental librarian, School of Dentistry Library; and **Wilba Swearingen, AHIP**, director, Health Sciences Center Library, Louisiana State University—New Orleans

Objective: To describe the conceptualization, collaboration, planning, and implementation involved in a cooperative academic program designed to rapidly reestablish library services for health sciences students and faculty displaced from an urban health sciences center following Hurricane Katrina. The authors will discuss the challenges and outcomes of developing the program in the immediate aftermath of an unprecedented natural disaster.

Methods: The narrative will detail collaborative efforts between south Louisiana librarians from a medium-sized state university with a remote health sciences library and eight librarians from a medium-sized urban health sciences center in the catastrophic aftermath of Hurricane Katrina. The development of a successful library-within-a-library program for the restoration of library services to displaced nursing, dental, allied health, and medical students and faculty will be outlined. Project details from conceptualization, planning, implementation, and evaluation will be included. Selected areas addressed will include working with a dispersed patron base, configuring remote access with fewer network capabilities, working with limited resources on short notice, serving faculty and students under duress, and identifying challenges and overcoming obstacles inherent in incorporating one library into another. Implications for library disaster planning learned from this unprecedented collaborative experience will be discussed.

Results: Displaced Louisiana State University Health Sciences Center-New Orleans librarians have successfully served a dispersed patron population by creating a library-within-a-library at Southeastern Louisiana University’s branch nursing library in Baton Rouge. A unique opportunity for inter-institutional collaboration developed. Joint endeavors will continue in the future.

Theme: Research MethodsMedical Informatics Section and Molecular Biology and Genomics SIG**Biomedical Ontologies and Taxonomies****2:00 p.m.****Ontologies, Taxonomies, Classifications, Thesauri, and Terminologies: Understanding the Differences****Stuart Nelson**, head, Medical Subject Headings, National Institutes of Health, Washington, DC

Description: Representing the richness of human language in a way that can be manipulated by computers is a challenging task. The problem of establishing a single expression to represent a meaning is well known to librarians, who are trained in the use of authority files and similar mechanisms to avoid duplication of meaning. Doing this for computer systems, a necessity for precise operations involving organizing and retrieving information, has only made this problem of representational integrity more prominent. As a result, there has been a proliferation of efforts. To name just a few, there are Medical Subject Headings, Gene Ontology, Virus Taxonomy, SNOMED-CT, National Center for Biotechnology Information Taxonomy, and The International Classification of Diseases. Those efforts have been described with a plethora of names, each of which reflects the intent of the developers. These names represent a spectrum of complexity and of realistic representation of the fundamental defining characteristics of an idea. From the simplest terminology to the most sophisticated ontology, each vocabulary faces common tasks. Often what determines the ultimate usefulness of the vocabulary is the approach to these tasks, which include (a) dealing with updates because of changes in understanding and knowledge, (b) adjusting to the inevitable drift in meanings of words in human language, and (c) altering structure to accommodate newer technological developments.

2:45 p.m.**Ontologies in Bioinformatics and Molecular Biology****Joyce Mitchell**, professor and chair, Department of Medical Informatics, University of Utah–Salt Lake City

Description: An ontology provides for an organizational framework in a domain. It allows for machine-interpretable definitions of concepts and promotes reasoning among the concepts in the ontology. Ontologies have matured within clinical informatics but have become very important in the past few years in the fields of bioinformatics and molecular biology. This talk will cover some of the well-known ontologies such as the Gene Ontology and the Microarray Gene Expression Data (MGED) Ontology as well as some of the emerging ontologies such as the Source Ontology and the PGED Ontology. The focus will be on the reasoning about diverse domains that can potentially arise from the use of these knowledge structures and ways to learn more about them.

Research Section, Hospital Libraries, and Nursing and Allied Health Resources Sections and Outreach and African American Medical Librarians Alliance SIGs**Research 101 Toolbox****2:05 p.m.****Finding Our Foundation: Analysis of the Library and Information Science Abstracts Database for Research Article Retrieval****Carol Perryman**, Triangle Research Libraries Network doctoral fellow, and **Dihui Lu**, doctoral student, School of Information and Library Science, University of North Carolina–Chapel Hill

Objective: A problem frequently mentioned by leaders of the evidence-based librarianship initiative is that of finding our own best evidence to use it as a basis for decision making. The primary objective of this study is to examine the Library and Information Science Abstracts (LISA) database to determine if research literature can consistently be retrieved by using descriptors and/or keywords identifying the research methodologies.

Methods: A LISA database search for all research articles from the top-ten library and information science journals for 2001 as identified by Koufogiannakis, Slater, and Crumley (2004) is conducted, then a filter developed by Beverley (2004) to retrieve research articles is used to identify a second set of document records from the same journal set and year. Disparities and overlaps between the resulting two groups of records are analyzed by use of descriptor frequency ranking, then the unique titles for each set are manually reviewed. Thomson ISI Web of Knowledge journal citation reports and journal coverage comparisons between LISA, Library Literature, and the ERIC databases are discussed to provide a clear discussion of problems of access and retrieval for the profession.

Results: Although it would need to be tested against a random set of citations rather than the purposive sample tested here, the analysis suggests that retrieval using the descriptor terms alone may succeed in only $31.5\% \pm 5.2\%$ of attempts, with a 95% confidence interval.

Conclusions: The LISA thesaurus is neither consistent nor sufficiently comprehensive to serve the needs of researchers. Recommendations for the improved retrievability of library and information science research literature from the database are made.

2:25 p.m.**Achieving Results Through Complex Collaboration: A Case Study of a Needs Assessment of Health Care Professionals Serving Native American Communities**

Lilian Hoffecker, AHIP, reference and education librarian, Denison Memorial Library, University of Colorado and Health Sciences Center–Denver, CO; **Patricia Bradley**, tribal services librarian, Health Sciences Library and Informatics Center, University of New Mexico–Albuquerque; **John Bramble**, outreach librarian, Spencer S. Eccles Health Sciences Library, University of Utah Health Sciences Center–Salt Lake City; **Stephanie Weldon**, AHIP, reference librarian, Denison Memorial Library, University of Colorado and Health Sciences Center–Denver; and **Patricia Aulflick**, outreach librarian, Arizona Health Sciences Library, University of Arizona–Tucson

Objective: This paper describes the collaborative processes in

developing and implementing a needs assessment to discover the information needs of health professionals serving the Native American community. This complex initiative involved three National Network of Libraries of Medicine regions, four academic health sciences libraries, and multiple tribal, state, and federal health agencies.

Project Description: As an initial step toward achieving the goals of the initiative, namely enhancing the impact of outreach to Native American communities, a needs assessment workgroup assumed responsibility for gathering data on the information needs of health care professionals in the Native American community. Via regular teleconference and email discussion, tasks undertaken included: developing, testing, and learning to use the survey instrument; identifying and contacting administrators of health care agencies; establishing credibility and “buy-in” from health administrators and their professional staff; obtaining permissions to conduct face-to-face interviews from federal, state, and tribal organizations; and, finally, conducting the needs assessment and evaluating its results. The experiences related and lessons learned may be of interest to others planning complex multi-institutional projects especially those involving needs assessments and ethnically diverse populations.

Results: The collaborative process resulted in a number of lessons learned: the importance of communicating with clarity to all involved parties, having contingency plans, understanding “health care clinic culture,” and being sensitive to Native American cultural norms.

Conclusions: Any group project must cope with differences among its members—in personal experience levels, communication styles, even interests. Projects involving multiple, distantly located institutions working with ethnically diverse communities, must additionally grapple with variations in organizational practice, contrasts in cultural values, significant communication issues, and perhaps incompatible priorities. The Needs Assessment Workgroup of the Tribal Connections Four Corners Project faced many of these complicating factors, among the members of the workgroup itself and with the subjects—the health care providers—of the assessment. In the end, the workgroup successfully collected useful and practical data, but the process of the collaboration was itself a valuable learning experience.

2:45 p.m.

Mediated Literature Review for Cases Presented at Morning Report Decreases Hospital Charges and Length of Stay

Donna F. Timm, head, User Education, LSU Health Sciences Library, Louisiana State University Health Sciences Center—Shreveport

Objective: To determine whether hospital charges and length of stay decrease for cases presented at morning report supported by clinician and library faculty literature review.

Methods: This collaboration between the departments of medicine and medical science library tested whether a mediated literature review supporting each morning report case presentation reduced in-patient costs and lessened length of stay. This case-control study, conducted from August 2004 to March 2005, compared outcomes for 105 cases admitted the night previously and presented at morning report to 19,105 potential matches. Immediately following morning report, a computerized search was conducted to answer 2 important clinical questions

regarding each patient’s care. Results were hand delivered to the house officer directly and to the rest of the group via email. This immediate feedback allowed the house officer to alter care, as needed. With matching criteria of age (+/- 5 years), identical primary diagnosis, and secondary diagnoses (within 3) using International Classification of Diseases (ICD-9) codes, the investigators were able to match 55 cases to 136 controls.

Results: A structured morning report with mediated literature review and the timely dissemination of full-text articles to the attending physician resulted in a decrease in hospital charges and length of stay for patients presented at morning report compared to matched patients in the comparison group. Length of stay differed significantly between matched cases and controls ($P < 0.024$). The median lengths of stay are 3 days for the morning report group and 5 days for the comparison group. This difference is highly statistically significant ($P < 0.002$). The median total hospital charges are \$7,045 for the morning report group and \$10,663 for the control group. Although this difference is not statistically significant, total hospital charges for patients presented at morning report are less than for their matched controls.

3:05 p.m.

Systematic Reviews and Meta-analysis in Health Sciences Information Research: An Appraisal and a Tutorial

Kalyani Ankem, associate professor, School of Library and Information Sciences, North Carolina Central University—Durham

Objective: To illustrate the lack of application of meta-analysis (a method widely used in medicine) in health sciences information studies and to provide practical guidance for encouraging related conduct of inquiry by health sciences information practitioners and researchers.

Methods: A literature review was undertaken to find systematic reviews, in particular, meta-analyses, in health sciences information literature within the last ten years. Each study was summarized with strengths and weaknesses highlighted. Upon assessment, the state of the art concerning systematic review was explained. Furthermore, to encourage application of the method in the field, a list of suggestions for conduct and report of quantitative research in general was developed, along with an extremely useful tutorial on meta-analysis for health sciences information practitioners and researchers. The tutorial covers designing a meta-analytic study, identifying variables, extracting data, applying statistical procedures, selecting statistical software for analysis, and understanding results.

Results: Substantive meta-analytic studies of health information research are practically non-existent. The systematic reviews that were conducted without mathematical synthesis are mostly descriptive in nature. The two substantive systematic reviews identified in the field are based on percentages gathered from other studies and do not address questions in an analytical approach. The strength of these studies lies in comprehensive literature searching, which clearly shows that health sciences information professionals can make substantial contributions in literature searching for any systematic review. However, in conducting systematic reviews, health sciences information professionals must place more emphasis on the analytical.

Conclusions: The tutorial will inform those researchers who will be conducting meta-analysis in this field. It will also increase the awareness of the requirements for adequately reporting results among those who conduct the base studies, so these studies can later be reviewed in a meta-analysis.

Poster Presentation: Odd Numbers/Sunday, May 21

1

Expanding Our Reach: The Impact of Open Access on the *Journal of the Medical Library Association*

T. Scott Plutchak, AHIP, director, Lister Hill Library of the Health Sciences, University of Alabama–Birmingham

Objective: To examine the impact on readership of the *Journal of the Medical Library Association (JMLA)* as a result of becoming an open access journal.

Methods: PubMed Central (PMC) reports statistics for each of the journals it includes. These include total number of downloads (HTML and PDF), number of unique users per month, as well as the most read articles for the past 30 days, 6 months, and total time available. These statistics for the *JMLA* were analyzed to assess the impact on total readership resulting from the free availability of the journal on PMC. (This poster updates information reported in the editor's editorial in the October 2005 issues of the *JMLA*).

Results: Readership of the *JMLA* has expanded significantly, with more than three times as many individual readers per month as *MLA* members. Analysis of the most-read articles reveals significant patterns underlying this.

3

From Interlibrary Loan to Resource Sharing: Managing Change

Kevin M. O'Brien, assistant access services librarian, Library of the Health Sciences, University of Illinois–Chicago

Objective: Technological developments are influencing the practice of interlibrary loan (ILL) just as they are the delivery of reference and other library services. This poster session will help medical librarians manage change in this area of service as interlibrary loan as it has been traditionally defined evolves into the more expansive concept of resource sharing.

Methods: Three important trends in this evolution are identified and described: (1) the emergence of the International Organization for Standardization (ISO) ILL protocol, (2) the rise of peer-to-peer resource sharing groups, and (3) the integration of practices from commercial vendors (NetFlix, Amazon, Abebooks, Alibris).

5

The Collaborative Curriculum: How the Development of a Virtual Education Library Transformed the Pedagogical Approach of a Medical Society

Nancy Lombardo, systems librarian, and **Valeri Craigle**, Digital Initiatives Librarian, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

Objective: This paper will report on the use of a virtual library in the development of a standardized curriculum for neuro-ophthalmology. Like most practitioners of academic medicine, neuro-ophthalmologists have acquired the dual role of doctor and academician. Neuro-ophthalmology faculty must teach, conduct research, and tend to patients in the clinic, leaving little time to acquire educational materials or organize a curriculum. To address the needs of this highly specialized community, a medical library partnered with a neuro-ophthalmology society to build a virtual library in neuro-ophthalmology and update the neuro-ophthalmology curriculum.

Methods: In the spring of 2003, the National Library of

Medicine awarded a grant to support the development of a neuro-ophthalmology virtual library. Transitioning neuro-ophthalmology teaching materials from their native formats into a virtual environment and disseminating these materials in a meaningful way, required the development of a standardized pedagogy that would provide faculty with a coherent framework for using the resource and clarify for students the competencies required in the discipline. The volume and variety of material contributed and the unique teaching styles of the contributors required a complete reevaluation of the neuro-ophthalmology curriculum and an assessment of vocabularies, like Medical Subject Headings (MeSH), for their coverage of the neuro-ophthalmology subject matter.

7

Library Toolkit: Pathophysiology - Dentistry

Nihat Ispahany, reference librarian; **Kathren Torraca**, librarian; **Marina Chilov**, reference librarian; **Tracy Allen**, head, Access Services; **Konstantina Matsoukas**, department head; and **Elaine Zimpler**, librarian; Augustus C. Long Health Sciences Library, Columbia University, New York, NY

Objectives: In August 2004, librarians at the Columbia University Augustus C. Long Health Sciences Library met with the faculty of the dental school to discuss creating a library Toolkit for the course "Pathophysiology" for dental students.

The objective was teaching dental students pathways in finding answers to clinical questions using library tools and resources.

Methods: The librarians were provided with a syllabus that contained clinical case studies followed by a series of discussion questions. The Toolkit was designed to help students think through the questions and find the best ways to answer them using library resources. Students were first instructed to decide what type of question it was, using elements of evidence-based medicine (EBM), including background or foreground, therapy or diagnosis, etc. To answer a specific "type" of clinical question, the students were guided through a process of selecting appropriate resources and developing efficient search strategies. For each clinical case, the librarians designed search strategies and explained the logic behind the strategy choice. The Toolkit screens contain navigation and design elements that are consistent throughout the Toolkit. This makes the user comfortable and familiar with the Toolkit environment. With ease, they may view all the questions consecutively or randomly.

Results: The Library Toolkit: Pathophysiology - Dentistry was integrated into the dental school curriculum and placed into Courseworks. It helped the faculty to incorporate more of the EBM components in teaching pathophysiology to dental students.

Conclusion: The EBM approach was not originally planned while creating the Library Toolkit: Pathophysiology - Dentistry. We found, however, that the components of EBM lent themselves naturally to incorporating cognitive approaches to the case discussion questions.

9

XML in Action: Collaborating with a Third Party Book Review Service

Steven Hunt, Web programmer, and **Michelle Frisque**, head, Information Systems, Galter Health Sciences Library, Northwestern University, Chicago, IL, and **Rik Tamm-Daniels**, Chief Technology Officer, Information Technology, Doody Enterprises, Chicago, IL

Objective: To integrate content from a third party, in this case a private health sciences book review service, into our own Website without requiring our users to go to that site or login.

Setting: We are a medium-sized academic health sciences library with an existing Website that allows users to login and customize their preferences and displays according to their specialty interests.

Methods: The project required a collaboration with Doody's Book Review Service. Extensible markup language (XML) technologies were the obvious solution to the challenges we faced. XML allows structured data to be stored and communicated between applications over the Web and then searched, sorted, and displayed according to the specifications of the receiving application. Doody's Book Review Service created the XML schemas that defined all the data pertaining to a particular book review. Our Website contacts Doody's server with a well-formed XML request for recent book reviews in our users' specialty and retrieves XML data back. Subsequent requests retrieve summary or full book reviews, as well as allows our users to browse other specialties, etc. The XML data retrieved are manipulated on our end and rendered into hypertext markup language (HTML) using extensible stylesheet language transformations (XSLT). The process is transparent to the user.

Conclusions: Such a project can be relatively easy to implement with a general understanding of XML, a working knowledge of XSLT, and a cooperative content provider. Additional enhancements are planned for this project, including a general searching capability for the entire database of book reviews.

11

EthnoMed: Transformation of a Clinical Information Resource

Edward Roberts, head, Health Sciences Libraries/Systems; **Sandy Tao**, NLM fellow, Health Sciences Libraries; and **Ellen Howard**, clinical librarian, Health Sciences Libraries/K. K. Sherwood Library, Harborview Medical Center; University of Washington—Seattle

Objective: To describe the process of transforming a heavily used Website that serves as a clinical resource in a large medical center

Methods: The Ethnomed Website (ethnomed.org), a locally and nationally recognized resource of culturally and linguistically appropriate health-related information for refugee and immigrant communities and their providers, has grown steadily since its inception in 1994. Funded by various grants, a devoted team of librarians, support staff, and clinicians produces unique and valuable content. However, the information management practices of this Web resource have not developed in parallel with the content growth. This poster describes the steps the EthnoMed team is currently taking to transform this invaluable resource into a manageable and accessible Website. We will work closely with Website managers and end users of the Website to verify our understanding of existing problems with the site, so that our proposed solutions address the issues. We will also look at before and after usage statistics, and accessibility ratings for the Website.

Results: We expect to see improvements in the following areas:

- change visual and structural design of the EthnoMed Website to enhance the user experience
- easily integrate resources ranging from plain text to multimedia, varying by language and font and focusing on providing

information to two groups—care providers and community members

- design and implement a content management system (CMS) that enhances the sustainability of EthnoMed by supporting the routine work required for growth and maintenance
- develop the CMS so that it supports collaborative work with both internal and external groups

13

Streamlining the Handling of CD-ROMs in Compliance with Licenses

Xiaoli Li, head, Technical Services, and **Carolyn Kopper**, Collection Development Librarian, Carlson Health Sciences Library, University of California—Davis

Objective: More books with licensed CD-ROMs are coming into the library. This poster presents licensing scenarios that an academic health sciences library has faced and ways the library has created policies and procedures for these scenarios. The library's goal is to provide access to as much electronic information as possible for users while complying with licensing restrictions.

Methods: Technical services and public services and library licensing personnel collaborated to determine policies and procedures for common licensing scenarios for CD-ROMs. Licenses for CD-ROMs commonly received in the library were reviewed. The licenses were separated into groups according to their restrictions. Technical services drafted procedures for handling the CD-ROMs in the different licensing groups. Staff from public services and technical services discussed policies and the drafted procedures. The procedures were adjusted based on received comments. We expect that these policies and procedures will streamline the handling of CD-ROMs.

Results: Because of licensing, CD-ROMs accompanying books have created extra work for library staff. Established procedures for common licensing scenarios streamlined the handling of these materials. As licensing situations evolve, the library will need to reexamine its procedures.

15

To Honor, Develop, and Promote: An Academic Library Carries on the School of Medicine's Mission of *Cura Personalis*

Ivonne Martinez, education services associate, and **Jane Blumenthal, AHIP**, assistant dean, Knowledge Management, and director, Dahlgren Memorial Library, Georgetown University, Washington, DC

Objective: This paper will describe the process of promoting care of self and others through a reading collection in the humanities and medicine.

Methods: Following the Jesuit tradition of *cura personalis*, caring for the whole person, the library developed a humanities and leisure reading collection for the medical center community. The humanities collection was dedicated in honor of a prominent medical center physician who, as a lifelong bibliophile, believed in reading widely both within and outside one's field. The collection features literature, poetry, philosophy, history, biography, and other works and is designed to help current and future physicians and scientists grow professionally and personally through developing their intellectual interests. To promote the humanities collection, the library launched a poster

campaign with the *cura personalis* theme during National Medical Libraries Month. The library invited faculty members from different departments to be photographed with a favorite book or a book that influenced their life or career and to publish a short essay about the item on the Website.

Results: As the previous year, the *cura personalis* poster campaign was again a great success. Offering a popular humanities and leisure reading collection the library proudly honored John Eisenberg and his vision.

17

The Bioethics Digital Library: Best Practices Evolving from Ground Zero

Amy J. Hatfield, liaison, Bioethics, Ruth Lilly Medical Library; and **Gabriele Hysong**, student, **Chao Huang**, student, and **Shana Kelley**, student, School of Library and Information Science; Indiana University–Indianapolis

Objective: To acquire or borrow collections for digitization and inclusion in the Bioethics Digital Library (BEDL). Targeted content includes, but is not limited to, “classic texts” in bioethics; court decisions and legislation; government documents; the “gray” literature (conference abstracts, presented papers, professional meeting minutes, etc.); full-text journal articles; and both audio and visual materials. The scope will include domestic and international content. The technical goals for managing and maintaining the digital content in BEDL include:

- commitment to open access (no toll)
- compliance with open archives initiative metadata harvesting protocol
- preservation of master digital surrogates
- perpetual “usability”
- persistent universal resource identifier (URI)

Methods: A test case, the National Commission for the Protection of Human Subjects in Biomedical and Behavioral Research meetings minutes and transcripts, were borrowed from the University of Texas Medical Branch, Blocker History of Medicine Collection, and digitized. The encountered processes and experiences produced necessary “best practices” pertaining to:

- collection audit
- materials processing and preparation
- scanning and optical character recognition
- copyright research
- metadata assignment and indexing
- content organization in the digital library framework (DSpace platform)
- marketing

19

From LoST to FindIt!: One Library’s Journey to a Federated Search Tool

Anne Seymour, associate director, Information Services, and **Frank Campbell**, health sciences libraries liaison, Biomedical Library; **Laurie Allen**, social sciences data librarian, Van Pelt Library; **Delphine Khanna**, digital projects librarian, Information Technology and Digital Development; **William Kopycki**, Middle East studies librarian, Van Pelt Library, and **Rachelle Nelson**, head, Shared Cataloging; **Jean Newland**, assistant director, Lippincott Library; **Jeanne Shuttleworth**, head, Electronic Acquisitions, Van Pelt Library; and **Leslie Vallhonrat**, Web

editor, Information Technology and Digital Development; University of Pennsylvania–Philadelphia

Purpose: To describe the process of creating a single interface to search multiple library resources, including: an electronic resources database, library Web pages, online catalog, video catalog, and staff directory.

Setting: Penn’s libraries hold more than 5 million printed volumes, subscribe to more than 40,000 online and print journals, and provide access to over 700 databases and digitized resources. The FindIt! tool was created to help bring together all of these resources in one place.

Brief Description: The Local Search Tool (LoST) team was charged with developing a federated search tool for local resources. The team looked at search logs for several of our local resources and saw a pronounced need for a utility that would allow our patrons to query multiple local databases in one step. Team members explored existing federated search tools and discussed commercial search interfaces. Working with Systems staff, as well as our library Web designer, FindIt! was born. The search tool does not replace the local native search interfaces. It does, however, offer a place to start, whether one wants to scan the library’s e-resources on a topic, is searching for a specific journal title, or is in need of information on library services.

Results: FindIt! was placed on every Penn library home page before the beginning of the Fall 2005 school year replacing an existing e-resource search tool. The new local search tool was instantly accepted and heavily used by our patrons. The implementation committee reviewed the search logs for several months and Systems staff continue to tweak the program to improve search results.

Conclusions: The users at Penn clearly want a federated tool that brings together many of the resources available at the library. Library staff continue to review search logs to improve the system. We continue to add metadata to content allowing for better retrieval. We also plan to add additional resources to search results including our image catalog, special collections, electronic reserves, PennAlerts (TOC alerting service), PennText (open URL linking-tool), Google Scholar, and other non-Penn resources, such as EbscoMegafile and PubMed.

21

Increasing the Availability of Electronic Resources to Health Sciences Libraries

Barbara B. Jones, librarian and outreach coordinator, J. Otto Lottes Health Sciences Library, University of Missouri–Columbia

Objective: To develop a regional buying consortium to license electronic resources for Regional Medical Library (RML) members.

Methods: A region-wide needs assessment was conducted to determine interest in the project and in selected resources. Results showed a high level of interest. Several resources were identified to start working toward licensing across the region. A vendor specializing in working with consortia was selected to handle product negotiations. An advisory group has been established to evaluate future product selections and to represent the interests of health sciences libraries in each state. Currently, two products are being licensed under the consortium, and additional products are being evaluated. The projected outcome is that a regional buying consortium can license electronic resources for health sciences

libraries at a significantly lower cost than libraries operating individually and that libraries will report satisfaction with products offered and ease of participation.

23

Transformations Along the Journey: Consumer Health Online and MedlinePlus "Go Local"

Lee A. Vucovich, AHIP, assistant director, Reference, Lister Hill Library of the Health Sciences, University of Alabama–Birmingham; **Steven MacCall**, assistant professor, School of Library and Information Studies, University of Alabama–Tuscaloosa; and **Catherine Hogan Smith, AHIP**, associate professor, Lister Hill Library of the Health Sciences, University of Alabama–Birmingham

Objective: To examine the National Library of Medicine (NLM) Go Local initiative in the context of evolving consumer health Websites and to develop issues for future Go Local participants to consider, including those involving collection development of online consumer health resources.

Methods: Survey of project directors of existing and impending Go Local Websites to evaluate the rationales and determining factors behind the Go Local participants' decisions to either host their own Go Local Websites or to use the services of NLM. Other data concerning management issues and the role of MedlinePlus as the primary source of health information will also be collected. Literature search for articles relating to the evolution of consumer health Websites, especially library-driven ones, will be done.

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The Pilot's Smooth Landing: Subject Guides "On-the-Fly"

Hattie H. Vines, AHIP, information services librarian, and **Sally Wardell**, Assistant Director, Information Technology Services, Medical Center Library, Duke University, Durham, NC

Objective: To create a pilot database from existing subject guides utilizing content management software, design a search page to render results, allow for more flexibility with multiple access points, and simplify resource management.

Methods: A team of librarians and the information technology (IT) specialist weighed the pros and cons of the development of a pilot database from the ground up versus using a commercially produced module. The decision was made to use Taxis and Zope. We agreed on the fields needed to input data and the IT specialist wrote the scripts and search parameters. Resources from the static pages were input individually and assigned properties such as information level (consumer or professional), author, title, provider, resource owner, resource type, format, location, description, and subject keywords. Resource formats included audiovisual, book, journal, database, and Website. After reassessing data elements, input standards and tweaking, we arrived at a consensus of which elements would display in the public interface and used the "zopeifying" buttons in Taxis to create the final product in Zope.

27

Creating an Online New Books List: Complexities of Sorting, Foreign Character Display, and Online Public Access Catalog (OPAC) Linking

Chris Ewing, Web support librarian, and **Janis Brown, AHIP**,

associate director, Systems and Information Technology Division, Norris Medical Library, University of Southern California–Los Angeles

Objective: To overcome developmental issues raised by creating an online listing of the new books received weekly at the Norris Medical Library. The information given will assist others in their efforts when developing database driven content for the Internet.

Methods: Many patrons today must access the library more frequently through its Website than by physically visiting the building. To provide remote user the same services as those in person, the library proposed making the holdings of the new bookshelf available online. To minimize the maintenance required when publishing the new bookshelf to the Internet, data from the online public access catalog (OPAC) was migrated into a database. During implementation of the project, bibliographic sorting, foreign character display, and OPAC linking demanded unique resolutions. The library's Web support librarian worked with student programmers to develop small open source programs to resolve project hurdles. This poster will show how problems were resolved during the completion of the online new books list.

Results: The use of PHP scripts solved a variety of issues during the development of the online new books list. One script places the data from the OPAC into the database. Another script creates a title sort field that removes "a", "an," and "the" from the title for correct alphabetic display. Foreign character display involves decoding ASCII code and then recoding for Web presentation. The embedding of the OPAC item barcode into the book title hyperlink occurs during page generation and allows for linking directly to the books citation record in the OPAC. Further, PHP scripts automatically rotate books off the new section after two weeks and off the recent section after three months. These various scripts resulted in an intuitive, interactive Web interface providing an easy way for patrons to learn about new books.

29

Core Books and Journals in Veterinary Medicine: Print to Hypertext Markup Language (HTML)

Jill Crawley-Low, head, Veterinary Medicine Library, University of Saskatchewan–Saskatoon, Canada

Objective: To create a Web-based acquisitions and evaluation tool for developing the monograph and serials components of new veterinary medicine collections or for supplementing existing science, technology, and medicine collections where veterinary medicine is in the scope of the collection.

Methods: Two print documents, a paper on core monographs in veterinary medicine (*J Med Libr Assoc* 2004 Oct;92(4):473–88) and a paper describing a bibliometric study of the *American Journal of Veterinary Research* (accepted for publication *J Med Libr Assoc* in 2006) were adapted to hypertext markup language (HTML) format to take advantage of enhancements possible on the Web. Features such as searching, links to book reviews, prices, formats, and currency add value to the content of the printed bibliographies. The Veterinary Medicine Bibliography Website resides at library.usask.ca/vetmed/vetmedbib/ and is hosted by the University of Saskatchewan. Titles in the bibliographies were chosen based on critical reviews of monographs by librarians, faculty, and students from a selection of veterinary medicine colleges in North America. Serials were selected based on the results of a bibliometric study of a prominent veterinary medical journal.

Results: Readers' input is encouraged through a "Recommend a book" link. The number of visits to the site is tabulated automatically

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Evidence of a Transformation? Examining the Reference Collection

Ana G. Ugaz, resources management librarian, and **Taryn Resnick**, resources management librarian, Medical Sciences Library, Texas A&M University—College Station

Objective: To analyze medical titles in our reference collection to compare use of print monographs with their electronic equivalents.

Methods: Use statistics were gathered from vendor data for four electronic resource packages: Stat!Ref, AccessMedicine, books@Ovid, and MD Consult. Data were recorded on a spreadsheet to cumulate use totals for titles available in these electronic packages. We identified titles in the packages for which we owned print copies in our reference collection. In-house circulation statistics for the print items were tallied using our integrated library system, Voyager. Data collection covered a fourteen-month period (January 2005–February 2006). Analysis included comparing print versus electronic use for each title to answer the following questions.

1. Is there evidence that the electronic version is used more than the print?
2. Should the library move from print plus electronic to electronic only?
3. Should the library retain the print?
4. Are there titles that are going unused in either format?

Results: More than 95% of the 61 titles examined (58) had greater use in electronic formats than in print. Use was also examined in National Library of Medicine (NLM) classifications to identify trends by subject areas. The five NLM classes with most use were WB ("Practice of Medicine"), QV ("Pharmacology"), QS ("Human Anatomy"), QZ ("Pathology"), and WG ("Cardiovascular System"); for 25 of the 26 NLM classification subgroups investigated, online usage far outstripped print. Use of electronic editions was 38 times greater than print, with electronic use totaling 13,060, while total print use was 302. Only 1 item showed no use in either format.

Conclusions: In general, data support user preference for electronic format, although there is high variability in use by format in specific subject areas. Our collection development decisions will be guided by trends we observed in this study and further investigation.

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Library Research Skills and the Nursing Curriculum: Engaging Students in the Post-Brandon/Hill Era

Carol L. Watwood, AHIP, health sciences librarian, Helm-Cravens Library, Western Kentucky University—Bowling Green

Objective: In 2004, Western Kentucky University drafted a new quality enhancement plan, "Engaging Students for Success in a Global Society." This initiative encourages students to become "active contributors to their own learning," and to complete projects requiring library research. Because of changes in the nursing profession and in the research literature, new ways of teaching students library research skills must be found. Health sciences research in the twenty-first century is multicultural,

multidisciplinary, and multi-format. A large proportion of nursing faculty and librarians alike went to college in the Brandon/Hill era when most research resources were in print, written by nurses for other nurses. Students, on the other hand, use the Web for research but may not know how to evaluate the materials they find and may not know to access the peer-reviewed journal literature. Nursing faculty members, librarians, and students were asked about issues that needed to be addressed so that students will graduate with high-quality research skills.

Methods:

1. The professional literature was reviewed for background information about what research skills are needed for successful nursing practice, and a bibliography was compiled.
2. A clinical rotation in library research skills was offered as part of a junior-level nursing course, "Health Promotion Across the Lifespan," in spring and fall 2005. Comments and questions were solicited from faculty, librarians, and students.
3. Library skills presentations were made to research-related nursing classes in spring and fall 2005, and suggestions were solicited and reviewed.
4. Web-based methods of delivering information to students in remote locations were investigated.

Results: Several important areas were identified for improvement. Some problems were easily solvable; some were not. Areas needing improvement included providing convenient and timely access to full text, guiding identification of scholarly and peer-reviewed literature, making the library Website easier to use from remote locations, and teaching library skills earlier in the students' college careers. Instructors wanted students to make more use of the library and peer-reviewed journals.

Conclusions: Library instruction in the twenty-first century must emphasize the increasingly multicultural, multidisciplinary, and multi-format nature of nursing research, and students must actively participate in library research throughout the nursing curriculum.

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Changing Perspectives: Strategies to Generate Library Entry Points into Medical Education

Erika L. Severson, health sciences librarian; **Christopher Hooper-Lane**, instructional services coordinator; **Allan Barclay**, AHIP, information architecture coordinator; and **Andrew Boies**, research intern; Ebling Library, University of Wisconsin—Madison

Purpose: This poster will illustrate novel approaches utilized to increase library involvement throughout the medical curriculum.

Settings/Participants: A large academic health sciences library.

Program: In the past few years, this library has had moderate involvement in the curriculum of the medical school. Recently, a library relocation into a shared health sciences education facility, coinciding with a medical school curriculum evaluation, has provided the impetus to take a more systematic and effective role integrating library components into undergraduate medical education. To take advantage of these opportunities, the library designated a liaison dedicated specifically to medical education and hired a recent graduate from the medical program as a one-year intern. The new liaison, in conjunction with the intern, spearheaded efforts to meet with deans, course directors, and other curriculum leaders. The intern also created a map of the medical curriculum, giving an insider's perspective on the

program. As a consequence, staff members have identified key entry points to focus on integrating our expertise, increased representation on key medical school committees, and are enjoying greater visibility throughout the program.

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Enhancing Electronic Learning Through the Use of Training Videos

Mark Berendsen, education librarian, and **Stephanie C. Kerns**, head, Education and Outreach, and Curriculum Librarian, Galter Health Sciences Library, Northwestern University, Chicago, IL

Objective: The main objective of this project is to provide online instructional tutorials covering database searching and the effective use of software programs. The tutorials are Web pages consisting of textual instructions, images, and short videos that illustrate step-by-step instructions for performing specific tasks. A secondary objective is to compare the effectiveness of online tutorials with classroom instruction.

Methods: For several years, the library has offered online user guides for point-of-need training on searching databases, and using software programs. With the advent of Camtasia Studio software, the current project is to enhance user guides by including short videos to illustrate tasks described in the text of the tutorials. These videos are ideal for visual learners who learn by seeing exactly how a task is performed. Camtasia studio can record a computer screen and produce narrated videos that show users how to search a database or use a software product in its native format. Users see the resource they are learning on their screen and are shown where to click to perform specific tasks through step-by-step demonstration. Videos are produced as Flash files, viewable on any computer equipped with the free Flash Player.

Results: Creating instructional videos is an ongoing process. Thus far, staff have created several videos to augment the online guides to EndNote and Ovid MEDLINE and created a video that shows users how to customize our Website and are planning videos for a Current Awareness Services guide. We plan to collect data to determine how often these videos are viewed. While we have no hard data to corroborate this, anecdotal evidence suggests that the videos have been helpful to a number of users. More work needs to be done to develop evaluation tools to measure the effectiveness of Camtasia videos as instructional tools. Additionally, promotion of the videos needs to improve to effect more widespread use. Moreover, developing a streamlined method for creating videos would greatly decrease production time and serve as a reference for all staff with the need or desire to create videos.

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Transforming Lives: How a Book Group Connects Patients and Staff

Amy Louise Frey, AHIP, manager, Health Sciences Library, and **Mary Jo Archambault**, therapeutic recreation specialist, Therapeutic Recreation, Hospital for Special Care, New Britain, CT

Objective: To bring patients and staff at a rehabilitation and long-term acute care hospital together in a nonclinical leisure activity that will provide them with the opportunity to share thoughts and experiences outside the patient-provider relationship.

Methods: Establish a meeting time for the Book Group that takes

into account patient care regimes as well as staff availability. Identify patients on long-term units who are interested in participating in such an activity as well as staff members who would like to be involved in such an interactive program. Each individual is provided with a copy of the month's reading selection in a format appropriate to that person's needs (print, audio, computer file). Members will read the book ahead of the designated meeting time. At the monthly meeting, there will be a discussion of the book led by the librarian and the therapeutic recreation specialist. Book group members who are unable to verbalize their opinions and thoughts do so with the aid of facilitated communication devices. Suggestions for upcoming selections are made by all involved, patients or staff. The group focuses on nonfiction titles that lend themselves to being read in segments (and not having to be read, necessarily, in their entirety) as some patients' health issues impact their cognitive abilities and attention spans.

Results: The Book Group has met monthly since spring 2005. Patients and staff interact enthusiastically in discussing the monthly selection. Issues have been identified and problems solved by all members: (1) changed meeting time as patient care regimes mitigated against some patients attending, (2) needed to provide patients with memory aid to assist in tracking readings, (3) included patients with more severe cognitive/physical needs, and (4) had members more actively involved in the book selection process. As a result, patients chose a book directly related to experiences of the hospital population. In addition, a unit-based facilitated reading group was started. Participants attend the small group and participate in the larger monthly meetings. The group identified the use of sticky notes as an easy method to assist readers in marking passages of interest and/or to note questions or comments as they arise while reading. Staff and patient members look forward to the lively monthly discussions.

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Improving Access to Health Information in the United States-Mexico Borderlands: A Bilingual Guide for Promotoras

Norice Lee, department head, Access Services; **Sylvia P. Ortiz**, business librarian, Reference and Research Services; and **Cindy Watkins**, life sciences librarian, Reference and Research Services; New Mexico State University—Las Cruces

Objective: *Promotoras* are frequently the first-line health care workers consulted by medically underserved populations along the southern New Mexico-Mexico border. Often limited by their lack of readily accessible health care information, a bilingual guide was developed in association with the American Library Association (ALA)/Carnegie-Whitney to assist *promotoras*, librarians, health educators, and researchers in finding references to relevant health information resources.

Method: A \$5,000 grant award was received from ALA/Carnegie-Whitney to publish and distribute a bilingual guide for *promotoras*. A project team consisting of two graduate students and three librarians conducted research to determine pertinent topical areas to be covered in the guide. Topics selected by the team were validated by focus group feedback from *promotoras* working in the field. Border health resources that met established criteria for appropriateness (including local relevancy and reading and literacy levels), reliability, format, and easy accessibility were entered into a database for inclusion into the guide. One

hundred fifty-seven annotations were written specifically for use by *promotoras* and translated into vernacular Spanish to maximize the guide's usability. Guides and accompanying brochures were distributed to *promotoras*, border area libraries, and local health agencies and researchers. An electronic version of the guide was posted to a border health Website.

Results: Seventy-five copies of the bilingual guide were distributed. Area *promotoras* were the target population for receiving the bibliography. Because the researchers did not have frequent contact with *promotoras*, distribution was accomplished through a cooperative network. Researchers enlisted the assistance of a *promotora* coordinator from a local health care agency who shared the guides at a *promotora* meeting. Meeting attendees then delivered them to their colleagues in the field. Accompanying brochures were included with each bibliography distributed. Posting the guide on the BIEN! Website (www.bienhealth.org) was the next phase of making it available to the public. Additional guides were distributed to area libraries, a local hospital, and university faculty members.

Conclusion: Further research is needed to determine the effectiveness of the guide. Of key interest to the researchers is whether or not the guide improved the ability of *promotoras* and/or their clientele to find and access relevant, reliable health information.

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Talk Radio: Advocating and Celebrating Health Information Resources Over the Airwaves

Rozalyn P. McConaughy, assistant director, Education and Outreach; **Ruth A. Riley**, director, Library Services; **Laura Kane, AHIP**, assistant director, Information Services; and **Allison LoCicero**, Web services librarian; School of Medicine Library, University of South Carolina—Columbia

Objective: To describe an outreach project that educates the public about authoritative consumer health Websites and promotes library projects on the radio.

Methods:

Participants: Members of the library faculty have been regular monthly guests on *Health, Wealth, and Happiness*, a local radio show, for over three years.

Setting: *Health, Wealth, and Happiness* is on the air Monday through Friday from 2:00 p.m.-3:00 p.m. on WTGH 620 AM. The Health segment has a guest from the health care community.

Program: Librarians appear once a month to discuss the upcoming National Health Observances listed on the healthfinder.gov Website. Librarians describe Websites related to the observances. In addition to covering some of the content available on the Website, they highlight unique features of the site and talk about the characteristics of a valid consumer health site.

Conclusion: The radio show provides librarians with an opportunity to reach the general public and supply them with information about consumer health Websites. These radio appearances are also an opportunity to promote the library's health information projects, such as the Center for Disability Resources Library, GeriatricWeb, and Go Local-SC, as well as MedlinePlus. The radio show's Website contains a rotating archive of recent shows. Listening to the archives is a way for the librarians to critique their speaking skills and the ways in which they describe the consumer health sites.

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Podcasting with Purpose: Transforming a New Technology into a Useful Service for Library Patrons

Bart Ragon, assistant director, Library Technology and Development, Claude Moore Health Sciences Library, University of Virginia—Charlottesville

Objective: To provide widespread access to the Claude Moore Health Sciences Library's "History of the Health Sciences Lecture Series."

Methods: Currently, library patrons are invited to attend a lecture through mailer, Website, and email. Patrons have to physically attend the lecture to hear the presentation. The library will add three new methods of access enabling patrons to hear the lectures anytime and anywhere via Podcasting, Webcasting, and MP3 download.

Results: Library patrons can subscribe to the lecture series using iTunes, Podder, iPodderX, or other software applications on their computer. An iPod is not necessary but will enable mobile access for patrons on the go. The use of a really simple syndication (RSS) link will enable the patron's software or iPod to automatically update as new lectures are added. Patrons also have the option of listening directly from the Web or downloading a MP3 directly to their computer.

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Designing the Phoenix: The Rebirth of a Course Registration Process into a Curriculum Management System

Patricia Greenberg, education librarian, and **Bart Ragon**, assistant director, Library Technology and Development, Claude Moore Health Sciences Library, University of Virginia—Charlottesville

Objective: To provide a more effective and efficient system for capturing and administering library class registration information and patron evaluations in a single, real-time automated application.

Methods: The library's education program provides classes in various subject areas including scanning, PowerPoint, bibliographic management instruction, and database searching. Approximately seven classes are offered monthly. Classes are free and available to health system faculty, staff, and students. The current process for class registration and course survey is maintained and managed manually. This process will be automated and developed to utilize a database-driven Web application. Collaboration from multiple departments will be needed to ensure proper development of the application for staff and patron use. With the automation of registration information, reports will be generated to provide the education staff with better profiles of class attendees. The automation of the evaluation process will also allow staff to better assess the quality of the classes and instructors. In addition, automation will provide a process for post-evaluation of patrons attending classes.

Results: The new system has completely automated the registration and evaluation process for library patrons. Predefined reports provide enhanced user tracking and analysis tools to ensure that the library obtains a metric value of its education services. Course materials, instructor information, and other descriptive data are also administered through the system.

Conclusions: The automated system has allowed the education librarian, course instructors, and other staff members to

concentrate on the library's education mission, not its administration. It has also provided a valuable tool for assessing the profile of the patrons attending library classes.

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The National Library of Medicine's Hispanic Outreach Portfolio: A Descriptive Overview

Frederick B. Wood, computer scientist, Office of Health Information Programs Development; **Elliot R. Siegel**, associate director, Health Information Programs Development, Office of the Director; **Gale Dutcher**, chief, Office of Outreach and Special Populations, Specialized Information Services; and **Angela Ruffin**, head, National Network of Libraries of Medicine National Network Office; National Library of Medicine, Bethesda, MD

Objective: To prepare a comprehensive overview and analysis of National Library of Medicine (NLM)-sponsored or conducted outreach projects and activities that significantly or substantially involve Hispanic populations—including health consumers, community-based organizations, and health providers. To the extent possible, results and evaluation of Hispanic outreach to date and lessons learned will be included in the presentation overview.

Methods: Systematic survey of all relevant NLM units and review of the NLM Outreach and Consumer Health System database for the last three years. Review and analysis of individual Hispanic outreach project and activity reports, when available. Review of prior Hispanic outreach summaries or analyses prepared by or for NLM.

Results: The principal types of Hispanic outreach include major multidimensional outreach projects, focused outreach projects, training projects, technology infrastructure projects (computers, Internet connectivity), exhibits and health fairs, educational and promotional activities, Spanish-language Websites, community partnerships, and international partnerships (with Spanish-speaking areas of the world). The identified Hispanic outreach projects are distributed throughout the United States, with geographic spread and balance between urban, suburban, and rural/small town areas. Evaluation of these projects varied: some projects were not evaluated, others had modest evaluation, a few included comprehensive evaluation.

Conclusions: NLM has a fairly comprehensive array of Hispanic outreach activities that, taken as a whole, is considerably more robust than ten years ago. However, more consistent evaluation is needed along with greater efforts to identify and share lessons learned across programs and projects. Community based outreach concepts should be applicable. Seeking diverse viewpoints from the Hispanic community on effective outreach should be helpful.

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The Library: A Place to Find a Treasure of Health Information

Logan Ludwig, AHIP, associate dean, Library and Telehealth Services; **Mary J. Klatt**, associate director; **Eric Nygren**, Research Services; and **Stephen VanHouten**, head, Telehealth and Learning Resource Center; Health Sciences Library, Loyola University, Maywood, IL

Objective: To present consumer health information and promote the Library's services to all employees at Loyola University Medical Center through a booth at the Center's Employee Health Fair.

Methods: Annually, the Loyola University Medical Center conducts an Employee Health Fair in October to educate employees about various health care opportunities and resources available at the medical center. Representatives from various medical center departments set up booths where employees can receive health screenings and gather health-related information. This is the second year the library has participated in the Employee Health Fair.

Setting: The Loyola Center for Health & Fitness, a state-of-the-art fitness center, is centrally located on campus and has ample space to accommodate.

Participants: Library staff, faculty, staff and students from the Stritch School of Medicine, Marcella Niehoff School of Nursing, university graduate program, and employees of the medical center. Visitors to the health fair include physicians, nurses, support staff, and medical students. Over 200 employees visited the library's booth.

Resources: Booklets, flyers, and handouts describing consumer health resources and Library resources and services.

Program Methods: This poster session will describe:

- **Promotional activities:** To ensure a good turnout at the library's Health Fair booth, promotional activities included such items as flyers, banners, email messages, items in campus newsletters, and intranet calendar announcements.
- **Prizes and incentives:** Each visitor to the library's booth received a token gift (pens/pencils) branded with the library's Website address and slogan. Visitors were encouraged to sign up for the raffle that was held at the end of the day for a larger prize. Each visitor was given a "coupon" for another small gift they had to pick up in the library.
- **Evaluation process:** Each visitor was asked to fill out a short question about the consumer health information and the library. A follow-up questionnaire was sent to all who filled out a survey.

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Health and Medicine in the News: Linking Users to Health Information Reported in the *Star Tribune* (Minneapolis, MN)

Lisa McGuire, assistant librarian, Reference and Instructional Services, and **Nicole Theis-Mahon**, head, Technical Services, Bio-Medical Library, University of Minnesota—Minneapolis

Question: The goal of the Bio-Medical Library's Health & Medicine in the News service (www.biomed.lib.umn.edu/hmed/) is to provide quick access to the journal literature and meeting abstracts that is discussed in articles published in the *Star Tribune* (Minneapolis, MN).

Setting: The Bio-Medical Library is one of four major libraries on the Twin Cities campus of the University of Minnesota. The Bio-Medical Library serves the students, staff, and faculty of the Academic Health Center. The six schools and colleges that form the Academic Health Center include dentistry, medicine, nursing, pharmacy, public health, and veterinary medicine.

Methods: Health & Medicine in the News was begun in 1994 by librarians at the Bio-Medical Library to assist patrons who had questions about finding the full-text of journal articles that were mentioned in reporting published in the *Star Tribune*. Each day, staff at the library scan the newspaper for articles that mention a journal article and/or findings presented at a professional health sciences meeting. Then, staff summarizes the newspaper article by creating an extensible markup language (XML) document

that can be read by Web browsers with the following headings: **Headline**, **Newspaper Article Synopsis**, **Newspaper Article Source**, and **Journal Article Citation**.

Main Results: Today, *Health & Medicine in the News* is widely used by affiliates of the University of Minnesota and the general public to track down health information that is mentioned in the local paper. During the first nine months of 2005, the *Health & Medicine in the News* site averaged 6,300 hits per month. A sister site that tracks published abstracts of conference proceedings is available (www.biomed.lib.umn.edu/hmed/home.html).

Conclusion: *Health & Medicine in the News* continues to be a valuable service for people searching for health information in Minnesota and beyond. In the future, librarians at the Bio-Medical Library hope to incorporate new technologies to enhance the dynamic potential of the data present in *Health & Medicine in the News* and to link it to a future Minnesota GoLocal project.

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Partnerships to Integrate Evidence-based Practice and Research Skills across the Health Curriculum

Martha J. Portree, Consortium of Professional Schools team librarian; **Tina Adams**, Consortium of Professional Schools team librarian; and **Kevin Ketchner**, Consortium of Professional Schools team librarian; Cline Library, Northern Arizona University—Flagstaff

Objective: Academic library health team leads College of Health Professions dean's initiative to integrate evidence-based practice (EBP) throughout graduate and undergraduate curriculums resulting in partnerships with key faculty and increased leverage of library resources and services. As prominent EBP Working Group members, librarians lead collaborative efforts to ensure students achieve a degree of fluency in research methods and skills.

Methods: Library health team members helped form the College of Health Professions Evidence-Based Practice Group, comprised of faculty from all departments, which was charged with creating an integrated curriculum of EBP principles and concepts. The project management plan included an assessment of EBP across the curriculum, education of faculty to design and use an EBP curriculum, and implementation and assessment of the overall curriculum at graduate and undergraduate levels. Librarians were key members in educating working group faculty regarding the principles and practice of EBP through workshops and resource pages that contained readings and online learning guides. This effort has led to the incorporation of EBP principles into existing course work and the advancement of collaborative efforts aimed at developing a programmatic approach to integrating research methods and resources for targeted courses in the College of Health Professions.

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Prescription for the Spirit: A Library and Pastoral Services Partnership

Heidi Marleau, AHIP, health sciences librarian, Information Services, and **Stephen Johnson**, health sciences librarian, Information Services, Ebling Library, University of Wisconsin—Madison, and **Penny Andrews**, chaplain, Pastoral Services Department, University of Wisconsin Hospital and Clinics—Madison

Objective: To enhance services to library and pastoral care

clientele through a mutually beneficial partnership

Methods: When a chaplain inquired about a library orientation for her colleagues, we had no idea that this session would transform all involved. Soon after the orientation, the pastoral services department asked for the library's help with a collection development project, literature searches, and footwork for a current awareness service devoted to spirituality and medicine. In turn, the fourteen chaplains serving the patients and health care professionals of the large teaching hospital were happy to increase the library's visibility on the frontlines by raising awareness of its offerings including patient education, literature searches, and instruction. With spirituality defined broadly—from a religious experience to meditation to the appreciation of beauty—this local partnership is developing simultaneously with society's growing awareness of the relationship between medicine and spirituality. Two trends bode well for an enduring partnership between the library and pastoral services. First, a substantial increase has been documented in the number of articles devoted to spirituality and religion in the biomedical literature. Second, several institutes have been established at academic health centers charged with researching the mind-body connection.

Results: (1) Email alerts were created in ATLA Religion Database, PsycINFO, and PubMed. The citations are evaluated by the chaplains who then send them to targeted individuals and groups as well as include them in a subscription-based electronic newsletter. (2) The library has applied for a grant to boost its materials on spirituality and medicine. (3) A literature search on cultural and religious barriers to surgery was performed at a senior surgeon's request to educate himself and his residents. (4) Communication channels are being pursued as additional partners are identified such as the local integrative medicine department.

Conclusions: A healthy rapport between chaplains and librarians strengthens offerings to those they serve. In addition, all involved stay on the forefront of new research that promises to transform our understanding of medicine and the mind-body connection.

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Stay Informed: Really Simple Syndication (RSS) Made Easy

Gang (Wendy) Wu, information services librarian, Shiffman Medical Library, Wayne State University, Detroit, MI, and **Jie Li**, AHIP, assistant director, Public Services and Education, Biomedical Library, University of South Alabama—Mobile

Objective: This poster is to provide a quick guide for librarians on using really simple syndication (RSS) technology to support their patrons by delivering information updates of library services and resources to patrons' devices and to stay current in professional areas.

Description: RSS feed has been adopted to deliver news, updates, journal table of contents, database searches, blogs, or audio files to desktop or mobile devices. More and more peoples are looking for RSS solutions to keep them current in their areas of interest, while avoiding information overload. Thus, health sciences librarians need to be familiar with RSS technology, know various readers and news aggregators on different platforms, learn how to integrate RSS feeds into their Websites, as well as how to generate RSS feeds for their library Web content. A quick guide will help busy librarians to jump start and be prepared for this technology.

Conclusion: In this quick guide, we will illustrate the advantage of using RSS feed; list sample RSS feeds; and discuss steps on how to subscribe and read RSS feeds using a Web-based reader Bloglines, how to integrate RSS feed into a library Website, and how to create an RSS feed for library Web content. Our investigation will also include tips on how to create and read an RSS channel on a personal digital assistant (PDA).

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Transformation of Library Orientation for First-year Medical Students

Helvi McCall Price, AHIP, health sciences librarian, and **Ada Seltzer, AHIP, FMLA**, director, Rowland Medical Library, University of Mississippi Medical Center–Jackson

Objective: This poster session demonstrates how the library orientation for first-year medical students at the School of Medicine, University of Mississippi Medical Center, is transformed by the faculty at the Rowland Medical Library into an evidence-based medicine (EBM) curriculum course.

Methods: In 2002, the reference faculty began working with the library director to develop a new orientation program, conceived as a progressive series of instruction on EBM search skills. The traditional tour and library instruction, was replaced in September by a two hour curriculum course, “Biomedical Literature Skills for Evidence-Based Medicine.” The new instruction used a case-based approach to illustrate EBM concepts and resources. The decision in 2005 by the school of medicine to implement curriculum changes for first-year medical students catalyzed additional changes. In August, the library course was integrated into a two-week “Core Concepts” course, a multidisciplinary introduction to the scientific process and EBM. The library instruction was supplemented by a scheduled student meeting with a nursing home patient. During a follow-up session, students refined an answerable question concerning their nursing home patient and used EBM resources to find best evidence answers. Students completed a posttest, practice quiz, and evaluation online using Blackboard.

Results: Student evaluations of the library sessions improved after the transition to the EBM approach. From 2002 to 2005, evaluations are progressively positive. The pre- and posttest results are inconsistent for 2002 and 2003. The degree of difficulty in the questions for pre- and posttests was adjusted, and, for 2004, these results reflect improved learning. Results for the assignment quiz show that in 2002, 29% of the students scored 100%, and, in 2004, 69% of students scored 100%. The assignment quiz changed from 9 to 10 questions in 2005, and 21% scored 100%, while 47% scored 90%.

Conclusions: There are many advantages to the student and to the library faculty in delivering the library course in an integrated framework. Many uncontrolled variables make it difficult to provide conclusive comparisons. Students were very positive about the EBM search for their nursing home patient question.

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How Can Online Learning Object Databases Help Me?

Cynthia L. Sheffield, library liaison, Welch Medical Library, Johns Hopkins Medical Institutions, Baltimore, MD

Objective: What are learning object portals and why would librarians be interested in using them?

Methods: This poster highlights the advantages of using learning

object portals for reasons such as access to readily available information literacy modules, using these portals as a new information resource and providing recognition and promotion for professionally developed online instruction. Topics in these portals cover areas like how to search a database, how to understand statistics, or how to provide better patient care. The portals presented in this poster are readily available to librarians and medical institutions. Despite their value and accessibility, administrators for these portals report overall underutilization. Several librarians have expressed interest in their growth and use. This poster will create awareness about these databases and advocate their value in lifelong learning. It will also begin to explore the reasons why some librarians are using these resources and why others are not.

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Grantwriting and Career Development Skills for New Research Faculty in the Health Sciences

Bonnie McTaggart, grants and funding librarian, Health Sciences Library, School of Medicine, University of Washington–Seattle

Purpose: Actively foster grantwriting and career development skills for new research faculty by:

- participation in new faculty orientations
- program development for funding and grantwriting workshops
- individual consultations and grantsmanship development plans

Setting: The Research Funding Service (RFS) is a joint project of the School of Medicine and the Health Sciences Library. RFS serves the grantwriting needs of faculty, graduate students, and staff that are a part of the six health science schools. RFS maintains a special collection of print resources, subscription to electronic funding databases, comprehensive Website, email discussion list, monthly “Grant\$ for Lunch” program, and a strong commitment to curriculum and elective funding and grantwriting classes.

Brief Description: There is a self-imposed and institutional pressure to bring in grants when new faculty has little, if any, experience with grantwriting. There is additional pressure at the University of Washington because it has a history of success with federal funding. The university ranks first in federal funding for public institutions and number two for both public and private institutions. Lastly, the federal research and development climate is subject to funding from Congress and public health, global health, and national security are all competing priorities for these funding allocations.

Outcomes:

- successful grantwriting skills and career development for new research faculty
- strengthened commitment to fostering research and innovation
- potential new RFS resources and services
- enhanced communication and support to the Health Science academic schools and departments

Evaluation: An entry survey will be given to assess prior grantwriting experience. All classes, workshops, and consultations will provide ongoing solicitation of anonymous feedback regarding participant satisfaction and progress of the program. New research faculty participating in the program will be tracked for grant submission and award.

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Developing Evidence-based Practice Instruction in a Clinical Setting: The Library Perspective

Sue H. Felber, AHIP, coordinator, Biomedical Library; **Terry L. Sylvanus**, clinical nurse V, 3 South, MCC; **Sheila Ferrall**, clinical nurse specialist, Nursing Administration; **Joan I. Miller**, medical librarian, Biomedical Library; H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL

Objective: To present the development of evidence-based nursing practice (EBNP) instruction in an oncology setting from the perspective of library staff.

Methods: Staff of the Biomedical Library at this cancer hospital and research institute participated in development of EBNP instruction with interested clinical nurses. The initiative to study EBNP arose within the Nursing Research Committee as a logical offshoot of research activities. Library involvement consisted of two main activities: (1) classroom instruction for nurses interested in EBNP search strategies and resources and (2) mediated search back-up when presenters experienced difficulty locating evidence-based citations to answer clinical questions. Clinical presenters covered topics such as introduction to EBNP, chemotherapy-induced mucositis and treatment in cancer patients, ways to critically review a professional research article, and use of cooling blankets for fever. Library staff presented classes on search strategies and resources for EBNP in June 2005. Nursing staff requested repeat classes starting in March 2006. Search instruction covered techniques for locating EBNP in PubMed and CINAHL and search strategies specific to EBNP. All EBNP presentations are evaluated through written forms using ratings on a five-point Likert-type scale.

Results: EBNP presentations are an on-going program sponsored by the Nursing Research Committee. Two nurses have been invited to participate in Moffitt's institution-wide initiative on evidence-based medicine, an interdisciplinary working group. Library instruction for nurses is a well-established component of the library's educational offerings, and EBNP search skills instruction is an integral part of the program.

Conclusions: All EBNP presentations are evaluated through written forms, and library instruction has consistently received ratings of five (excellent) on a five-point Likert-type scale, with one representing "poor" and five representing "excellent."

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Starting and Implementing a Bioinformatics Program at Washington University School of Medicine Bernard Becker Medical Library: Transforming Reference Services

Lili Wang, bioinformatics specialist; **Kim Lipsey**, librarian; and **Carol Murray**, senior librarian; Bernard Becker Medical Library, Washington University School of Medicine, St. Louis, MO

Purpose: To implement a bioinformatics program to serve a growing need for bioinformatics services at the university school of medicine.

Participants: Clinical and research faculty, post-docs, graduate students, and principal investigators (PIs).

Program Description: A need was identified for developing a bioinformatics program, the right person was hired. A bioinformatics specialist who possesses a strong background in the field of molecular biology and biostatistics started developing

the program in 2002. Three core courses were developed and in-depth consultations occurred with faculty and researchers to address their specific needs. Partnerships were established in the university medical school community (e.g., Genome Sequencing Center) to license and teach Spotfire, a software package used to analyze microarray data. Site licensing for other software packages were purchased and managed by the library. Efforts to reach outside the university community were formed along with the development of a bioinformatics Website.

Main Results: Overall, based on the formal course evaluation forms that were divided into two categories, "Teacher Evaluation" and "Students Knowledge Gained," the courses were highly rated. When done well, this program creates greater opportunities for serving the university community.

Conclusion: The timing for implementing a bioinformatics program coincided with the university announcing its BioMed 21 Initiative, a \$300 million biomedical science initiative, "which will bring new knowledge of the human genetic blueprint to the patient's bedside and change how illnesses are understood, diagnosed and successfully treated." Due to the increase need for bioinformatics services on campus, the need for additional help is necessary. Therefore, the library is in the process of hiring another bioinformatics specialist to assist with expanding the services. To conclude, other libraries can also develop a similar program but a need must first be identified, and, once a need has been identified, it is important to hire the right person for the job. When done well, this creates greater opportunities for interaction between research faculty and the library.

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Changing Roles: Library Takes Prominent Role in Health Sciences Center's Center of Excellence in Women's Health

Nancy T. Lombardo, systems librarian, and **Sally Patrick**, research assistant librarian, Spencer S. Eccles Health Sciences Library, and **Kathleen B. Digre**, professor, Neurology, School of Medicine, University of Utah-Salt Lake City

Objective: Provide an example of the changing roles of librarians at an academic health sciences institution through description of one library's full participation in a federal Center of Excellence in Women's Health Demonstration project. Librarians are participating in all facets of the project with the express intent of ensuring that the institution gain full Center of Excellence (CoE) status.

Methods: This academic health sciences center was awarded a federal Center of Excellence in Women's Health Demonstration Project. Because the library had worked in unique, innovative ways with the principal investigators and others involved since the inception of the project, librarians were invited to participate in all levels of the project. There are five primary focus areas in the project: outreach, research, clinical care, faculty development, and curriculum development. One or more librarians have been assigned to each group. The librarian is to analyze the focused project goals and find the best means possible to provide appropriate information to the target audience. The principal investigators believe that this high level of library involvement will make the project more effective and will be the unique aspect of the project that will ensure acceptance into the long-term program.

Results: The poster presentation will cover the results of the process. Discussion of the five focus areas will provide an overview of how the librarians provided information to each distinct group, based on those very specific needs. An outline of the activities and progress of the teams will be covered.

Conclusions: While the final decision by the federal Health and Human Services department will not yet be made, the presentation will discuss the librarians' perception of how they were able to positively influence the CoE process and how these roles affected the library in a positive way.

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Extending Customer Service and Instruction Through Podcasts

Andrea Y. Griffith, reference librarian, and **Elisa Cortez**, reference librarian, University Libraries, Loma Linda University, Loma Linda, CA

Objective: To determine whether podcasting is a practical and realistic technology for creating online instructional support material for both on-campus and distance education students.

Methods: The word "podcasting" is a blend of Apple's "iPod" and "broadcasting." Podcasts are audio files, usually in MP3 format, published to the Internet. Users may download the files to personal MP3 players, such as an iPod. The presenters will explore the potential uses of podcasting in an academic health sciences library, specifically focusing on how podcasting can be used as a tool to create library-specific online support material.

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Authors and Zealots: Transforming Scholarly Communication

Mary E. Youngkin, assistant director, Information Services; **Valeri Craigle**, digital initiatives librarian; and **Joan Marcotte Gregory, AHIP**, librarian, Technical Services; Spencer S. Eccles Health Sciences Library, University of Utah—Salt Lake City

Objective: The Spencer S. Eccles Health Sciences Library at the University of Utah is committed to making positive change in scholarly communication and publishing. University faculty are encouraged to participate in open access initiatives, and the library offers resources, services, and tools to support them. This poster will provide an overview of new publications management services, including efforts to assist authors with copyright retention, and submissions to PubMed Central (PMC) and our institutional repository (IR).

Methods: The library's scholarly communication Web page was revamped, offering a variety of new publications management services. Presentations on open access, archiving, and copyright retention were delivered. To assist in building PubMed Central, university authors funded by the National Institutes of Health were identified, and a new service was launched offering the library as a "third party" submitter of manuscripts to PMC.

Results: The library has made considerable progress in raising awareness of the broad issues of scholarly communication, the value of open access publication and copyright retention, and the development of the IR. Library Web page changes facilitated awareness of open access issues and news, alternative licensing language for authors, and manuscript submission for the IR and PMC. The submission process was featured in the library's annual InfoFair and other campus presentations. Utilization of our PMC submission service was disappointing, and a more

intensive author-by-author approach continues. The typical twelve-month embargo on posting to PMC also made it difficult to assess early progress. The time-intensive deciphering of publisher permission policies is also a challenge. The library has expanded its commitment of staff and resources to the archiving of institutional content, open access initiatives, copyright issues, and publications management services with the ultimate goal of transforming the publication and archiving process.

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Transforming Patient-Clinician Communication Through Information: Evaluating the Impact of Mediated Searches for Patients and Families

Ruth Volk, librarian, Patient Education Resource Center, Comprehensive Cancer Center, University of Michigan—Ann Arbor, and, **Karen Hammelef**, director, Patient Support Services and Patient Education, Comprehensive Cancer Center, University of Michigan—Ann Arbor

Objective: To demonstrate that providing information services to cancer patients and families helps to facilitate patient-clinician communication, as well as improve outcomes and quality of life. This poster presents data collected in over 500 evaluation forms of mediated searches. Additional data obtained from physicians, nurse practitioners, and physician assistants may support the findings from the patients' data.

Methods: Users' feedback about the quality and impact of searches is collected through an evaluation form that accompanies each search. The evaluation form includes multiple-choice questions and a space to write comments. Users are asked if the information received was relevant to their questions, if they discussed the information with their health care providers, and if the information improved outcomes and/or quality of life. Users were also asked if they obtained information from other sources and where. Clinicians were surveyed and asked if patients have shared the information with them and whether the information has improved the interaction with the patients. Over a period of five years more than 1,000 searches were conducted and more than 500 evaluations returned by patients and families. An analysis of the statistical data and comments provided by patients and clinicians will prove or disprove the hypothesis.

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Information Rx's: Real and Perceived Barriers to Fulfillment

Monica Leisey, medical social work informationist, and **Jean P. Shipman, AHIP**, director and associate university librarian, VCU Libraries, Tompkins-McCaw Library for the Health Sciences, Virginia Commonwealth University—Richmond

Objective: The aim of this poster is to report on a study conducted to identify physicians' perceived barriers and the real barriers encountered by patients in filling information prescriptions issued by their physicians. Through comparison of these two groups' barriers, suggested strategies were developed to increase the adoption and effectiveness of the information prescription program

Methods: Physicians issuing information prescriptions participated in focus groups to identify the barriers they expected patients to confront when trying to fill information prescriptions. Areas explored during the focus groups included whether the physicians believed patients were interested in accessing health

information, reasons why patients might not fill prescriptions, and problems patients might encounter when trying to fill the prescriptions. Telephone interviews conducted three weeks after patients received information prescriptions provided details about the actual barriers encountered by the patients. The semi-structured interviews included such questions as whether or not the patients filled the information prescriptions, and if so, how the patients filled them; or if not, why the patients did not access the information that was available to them.

Results/Conclusions: Physicians reported that additional health information would be important for positive health outcomes, but that most of their patients would not access health information due to apathy or time constraints. Many of the patients did report that time constraints were a problem, but no patient reported not being interested in having additional information. No patient reported their physician recommended additional health information. Many patients did report accessing health information when they were concerned about a particular condition or medication, even when the information was not prescribed. Communicating the importance of health information to a patient does not seem to happen effectively during the patient visit. Patients acknowledged time as a barrier to accessing information but were able to find time to access information that was pertinent. Patients who did not access information did not believe the information was necessary.

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All About Patient Safety: What the Library Can Do

Kelly Near, outreach librarian, Information Services, and **Gretchen Arnold, AHIP**, interim director, Claude Moore Health Sciences Library, University of Virginia–Charlottesville

Objective: Capitalizing on its strong service ethic and reputation, the health sciences library developed multiple service strategies to support the institution's major patient safety initiative.

Methods: Strategies included networking to identify key patient safety stakeholders and groups, communicating library services that can impact patient safety, developing and hosting a patient safety Website for the entire institution, enhancing the library's collection in patient safety content, performing best practices search services, and becoming a permanent member of the patient safety team. Having a library staff member who is also a health professional was instrumental in building trust and mutual understanding of shared goals. Administrative support in the library assured the necessary resources to respond quickly and directly to opportunities.

Results: The library has become a partner in a "culture of patient safety" at the health system, holding membership in the Patient Safety Committee and the Patient Safety Education Workgroup. Visits to the Patient Safety Web page, hosted by the library, show steady increase. Other communication strategies such as a regular column in the hospital newsletter on patient safety and a new Website for patients and families on patient safety reflect library involvement.

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Consumer Health Information Patient Bedside Rounds: New Roles for Librarians

Patricia A. Hammond, AHIP, librarian; **Catharine S. Canevari**, interim deputy director; and **Jean P. Shipman, AHIP**, director and associate university librarian, VCU Libraries,

Virginia Commonwealth University–Richmond

Objective: Librarians responded to hospital administrators' identified need to improve inpatient satisfaction scores related to health education by partnering with a specialized nursing unit to perform weekday bedside rounds to elicit patient information requests. Hospital administrators embraced the opportunity to try this new customized service with the hope of increasing satisfaction scores and patient education documentation simultaneously.

Methods: Librarians approached hospital administration with a way to potentially improve patient satisfaction scores. Through discussions among librarians, a vice-president for nursing care, a divisional nursing director, and a unit nurse manager, a six-month pilot project providing customized information services to inpatients of a twenty-two-bed women's health surgical wing was offered. A consumer health librarian visited patient rooms on weekdays. Requested topic materials were compiled by the librarian and delivered to the unit the same day for nurses to distribute to their patients. This permitted nurses to address any care concerns originating from the material content. Evaluation methods included collecting usage statistics, tracking time, examining reported patient satisfaction scores for changes, monitoring use of information resources, looking at rates of nurses' patient education documentation, and obtaining direct participant feedback through surveys conducted by the unit.

Results: Thirty percent of the patients visited requested health information. The average time spent accepting and filling each request was thirty minutes. At the conclusion of the pilot, the decision was made to continue the service. Based on the availability of library staff, the service may be expanded to other nursing units. Nursing staff was pleased with the timeliness and convenience of the service. Most frequently, the librarian used MedlinePlus and books from the consumer health library to fill requests.

Conclusion: Providing patient education packets encouraged staff to perform and document their patient educational interactions. Staff awareness of the consumer health library services improved and staff requests library increased. This service was relatively inexpensive to provide and serves as a great model for librarians to become involved with the process of patient education.

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Full Coverage: An Expanded Role For Medical Librarians as Part of a Health Care Team to Address Issues of Health Literacy

Elizabeth K. Hill, AHIP, assistant professor and reference librarian, University of Idaho Library, University of Idaho–Moscow

Objective: Medical librarians are currently involved in health information provision for patients through membership on patient education committees and through their own library services. More can be done to assist in the fight against low health literacy, which has not been adequately addressed by efforts that seek to increase literacy, improve communication between providers and patients, or make patient education materials more linguistically and culturally appropriate. To be health literate, an individual must not only be able to read and comprehend health information, but must also be able to negotiate the health care system.

Methods: "Full coverage" services would engage staff from

medical libraries, patient education departments, and social services departments and, acting as a team, provide needed health information and assistance in negotiating the health care system that would start at admission and continue to be available to the patient for assistance after discharge back into the community. This proposed model would create an expanded role for medical librarians and could serve to more adequately address the issue of how to develop an informed patient and to provide another opportunity for an inroad into increasing health literacy.

Potential Outcomes: The conceptual framework for “full coverage” services melds the models of patient advocacy, of “wrap-around” services, and of health information literacy. Interventions to address health literacy concerns would be instigated at the first determination of need, which could include health literacy assessment, provision of “just in time” culturally and linguistically appropriate health information, information and referral services, outpatient health education in the patient’s home, and continued follow-up services in the home or community as needed. Through collaboration with patients in an individualized health information literacy plan of intervention, they will become better informed and more empowered, with an increased sense of self-efficacy.

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Promoting Patient Safety at the Bedside: Training Nurses on Patient Education Resources

Cynthia J. Vaughn, AHIP, clinical information librarian; **Martha Earl, AHIP**, reference coordinator; and **Elaine Brekke, AHIP**, librarian; Preston Medical Library, Preston Medical Library; **Virginia Turner**, clinical nutrition manager, UT Medical Center, and **Beth Weitz**, health education coordinator, UT Medical Center; and **Sandy Oelschlegel**, director, Preston Medical Library; University of Tennessee–Knoxville

Objective: To train nurse managers and floor nurses to find reliable patient handouts using subscription-based resources and evaluate the subsequent use of the products (MDConsult, ADAM, MICROMEDEX, and UpToDate).

Methods: The Patient Education Committee of an urban teaching hospital purchased ADAM as a patient education handout utility to comply with Joint Commission on Accreditation of Healthcare Organizations (JCAHO) standards. After the committee evaluated the product, the hospital partnered with the library to purchase a site license for MDConsult, which offered more topics in Spanish and an overall lower literacy level (6th–9th grade reading level). In addition, the committee approved use of MICROMEDEX Care Notes and UpToDate’s patient education component. Class handouts provided step-by-step instructions on using each resource. Librarians rotated with nurse coordinators to train staff at nursing stations in the neonatal intensive care unit, pediatric intensive care unit, emergency room, cardiovascular unit, and others. Fifteen-minute sessions were scheduled over a two-week period, plus time for revisiting stations that were busy during the first attempt at training. Longer sessions were scheduled on request.

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Providing Point of Care Information to the Busy Clinician: Transformation from Library Website to Clinical Portal

Robert Cupryk, information and education librarian; **Kerry**

A. O’Rourke, AHIP, campus library director, Robert Wood Johnson Library of the Health Sciences, University of Medicine and Dentistry of New Jersey–New Brunswick, and **Judith Cohn**, associate vice president, Scholarly Information, and university librarian, University Libraries, University of Medicine and Dentistry of New Jersey–Newark

Objective: To develop a clinical portal to facilitate access to clinical knowledge at the point of care.

Methods: Point-of-care scholarly resources provide clinicians with easy access to clinical information at the point of care. At a time when physicians are faced with pressure to improve efficiency and reduce medical errors, it is imperative that clinicians have access to evidence-based information when and where it is needed. The development of a clinical portal is a result of collaboration between the university libraries and university information services and technology (IST) department. The university libraries recently embarked on three disparate but related projects whose end-result was to make access to clinical information seamless. These are link server or open uniform resource locator (URL) technology, federated searching, and point-of-care clinical decision support systems. These technologies are currently being deployed to streamline access to information resources. Simultaneously, IST introduced new portal technology that provides the infrastructure to create a clinical portal.

Results: Content, resources, and services in my.UMDNJ are organized by the university’s mission of education, health care, and research. Users log into a welcome tab where they link to one of three mission tabs or an administrative tab. The content, links, and services on each tab display as channels. The health care channel provides direct access to point-of-care tools, including ClinicalResource@Ovid, DynaMed, First Consult, and InfoRetriever. The channel links directly to high-demand items including drug information, International Classification of Disease (ICD-9) codes, patient education handouts, and differential diagnosis through the quick hits menu. Toolkits contain links to authoritative tools, such as databases, full-text electronic resources, Internet sites, and resources for personal digital assistants (PDAs). Practice Guidelines provide links to frequently diagnosed conditions as well as to the National Guideline Clearinghouse. This first phase of this project integrates the content provided by the libraries with the technology provided by IST to bring clinical knowledge together “just in time” at the point of care.

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Teach on Peach: A Library-Clinician Patient Education Collaboration

Jennifer Diehl, assistant director, Public Services; **Christine Frank, AHIP**, director; and **Toby Gibson**, circulation manager, Library of Rush University Medical Center, Rush University Medical Center, Chicago, IL

Objective: To help clinical staff quickly obtain authoritative, quality information for patient education and to increase compliance with Joint Commission on Accreditation of Healthcare Organizations (JCAHO) patient education documentation requirements. To identify topics for future brochure development by the Patient Education Planning and Development Oversight Committee (PEPDOG).

Methods: The PEPDOC had created a previous publicity campaign to promote patient education documentation. The slogan, "When You Teach, Write on Peach," encouraged clinical staff to fill out a *peach*-colored Interdisciplinary Patient Education Record when providing patient education. However, this protocol was not being followed by many staff due to their busy patient-care schedule. In June, 2005, the library and the patient education coordinator rolled out a project called "Teach on Peach." When the need for patient education material is identified, clinical staff contacts a reference librarian. The reference librarian selects authoritative, quality health information and delivers to the requester two copies of the information within one business day. After reviewing the information for accuracy and appropriateness, the clinical staff gives a copy to the patient and puts a second copy in the patient chart.

Results: User satisfaction survey has been distributed. The results will be analyzed.

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Transforming Nursing Practice for Today's World: Teaching Information Literacy Skills to Nurses as a Preparation for Evidence-based Nursing Practice

Richard A. Billingsley, coordinator, Information and Instructional Services, Himmelfarb Health Sciences Library, The George Washington University, Washington, DC

Objective: To develop informational literacy skills in professional nurses working in a variety of settings as a preparation for utilizing advanced research skills in the promotion of evidence-based nursing practice.

Methods: The library identified the importance of information literacy, informatics, and evidence-based nursing practice as key skills in today's health care environment. Over two years ago, the library began an series of outreach programs to identify nurses working in a variety of settings to collaborate with and promote and teach these skills. These cohorts were instructed in the development of information literacy and retrieval skills and introduced to evidence-based nursing practice. Attendees included graduate nursing students, clinical nurses, nurse educators, and community nurses. Feedback from these nurse leaders was used to refine the curriculum, and lessons learned are being implemented into the university's new distance master's of nursing program. Recently, the library applied for and received a contract to develop a partnership with a local school district to provide instruction on information resources and nursing information literacy useful for the successful practice of school nursing.

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Computer Instruction for Health Care Providers: Transforming the Educator into the Learner

Russell Smith, librarian, Norris Medical Library, University of Southern California—Los Angeles

Objective: To describe the experience of providing computer instruction to health care providers. Networking and outreach issues will also be discussed.

Methods: Setting is an academic health sciences library. In coordination with the Pacific AIDS Education and Training Center (PAETC), a health sciences librarian provided detailed instruction to health care providers. Instruction included basic

Internet skills as well as more sophisticated search strategies to locate evidence-based medical information.

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Identifying the Health Information Needs of Health Care Practitioners Serving Native American Communities in the Four Corners Region

Patricia Bradley, tribal services librarian, Health Sciences Library and Informatics Center, and **Mary Jiron Belgarde**, associate professor, Language Literacy, Sociocultural Studies, and Educational Administration, University of New Mexico—Albuquerque; **Lilian Hoffecker, AHIP**, reference and education librarian, Denison Memorial Library, University of Colorado and Health Sciences Center—Denver; **John Bramble**, outreach librarian, Spencer S. Eccles Health Sciences Library, University of Utah—Salt Lake City; **Stephanie Weldon, AHIP**, reference librarian, Denison Memorial Library, University of Colorado Health Sciences Center—Denver; and **Patricia Auflick**, outreach librarian, Arizona Health Sciences Library, University of Arizona—Tucson

Objective: This poster presents the results of a needs assessment used to learn the information needs of health professionals who serve Native Americans in the Four Corners region of Arizona, Colorado, New Mexico, and Utah.

Methods: Project members included an evaluation consultant and librarians from four academic health sciences libraries and the National Network of Libraries of Medicine, for a total of nine members. Via regular teleconferences and email discussion, a survey instrument was developed and field tested. Members identified appropriate health clinics and hospitals and subsequently contacted their health administrators for permission to conduct the needs assessment among the professional staff. After scheduling appointments with individual physicians, nurses, pharmacists, dentists, and other health care professionals, project members traveled to clinics and hospitals to conduct one-on-one interviews. The assessment responses were compiled and analyzed by the evaluation consultant. Results of the survey will be used in a subsequent phase of the project to deliver health information using both electronic resources and print materials.

Results: The project identified the top five diagnoses of the population served, types of materials needed by the providers, medical library usage by the respondents, Internet searching capabilities of the respondents, and incidence of technological barriers in the facilities.

Conclusions: The survey indicates, there is a need for medical librarians in the "field." Respondents see medical librarians as professionals who put them in touch with the information they need to provide patient care. Because "busy schedule" was cited as a barrier to obtaining health information, medical librarians can be information brokers by putting the providers and the information they need together quickly and easily. Despite the technology lags in some areas, the Internet is still the quickest and most available means of delivering information, especially with vast distances that separate libraries and the health care facilities. When requested print materials can and should be made available.

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Community Service: A Dental Library's Initiative

Marie-Lise Antoun Shams, AHIP, associate librarian, Dental Library, University of Detroit Mercy—Detroit

Purpose: Describe the dental library's participation in community service.

Setting/Participants: The University of Detroit Mercy School of Dentistry—in collaboration with the Detroit District Dental Society, the Macomb Dental Society, and the Oakland County Dental Society—holds an all day event at its clinic. Children from the tri-county area come for free dental care.

Brief Description: *Give Kids a Smile*, an annual event created by the American Dental Association, provides free oral screening and treatment to children from low-income families. The University of Detroit School of Dentistry faculty and students and dentists from the Macomb, Wayne, and Oakland counties volunteer their services. The dental librarian's initiative to participate to provide health information services to the parents in the waiting area will be addressed. The planning and implementation of services rendered will be depicted.

Outcome: While the clinical needs of children are met by dentists and dental students, the informational needs of the parents regarding their children's health as well as their own are delivered by the librarian.

Evaluation: Success of the program are measured by the large number of parents seeking the service, their satisfaction with the information received, and their return for additional information on different topics.

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Health Sciences Library Students Promoting Multicultural Health Literacy

Elizabeth Eisenhauer, information resource specialist and graduate student, Uniform Data System for Medical Rehabilitation, University at Buffalo, Buffalo, NY; **Anne Callas**, medical librarian, Harrison Medical Library, Johns Hopkins Bayview Medical Center, Baltimore, MD; **Patricia Engel**, senior staff assistant, Department of Surgery, University at Buffalo, Buffalo General Hospital, Buffalo, NY; **Sara Zwirlein**, librarian, Central Library, Buffalo and Erie County Public Libraries, Buffalo, NY; **Mary Kennedy**, Patient Education, Buffalo General Hospital, Kaleida Health System, Buffalo, NY; and **Diane Schwartz, AHIP, FMLA**, director, Libraries and Archives, Kaleida Health, research associate professor, Medicine and Family Medicine, and adjunct instructor, School of Informatics, University at Buffalo, Buffalo, NY

Purpose: To demonstrate how students enrolled in a health sciences librarianship course worked in partnership with a hospital librarian/graduate school instructor and the chair of the health system's Patient Education Committee to develop health promotion brochures that targeted low literacy and low health literacy patients. The brochures were specifically intended to link and promote National Medical Librarians Month and Health Literacy Month.

Methods: Working in a problem-based learning format, library science students were assigned the task of developing two health information brochures for low literacy adults. One brochure targeted asthma patients and the other focused on patients with type II diabetes. Each handout was to be written at the fourth-grade reading level with the goal of distributing the brochures

throughout the hospital network. Working as a team, the students conducted the research and collated and edited the information gathered to create two easy-to-read, attractive brochures.

Results: The final versions were submitted to the Patient Education Committee for review and evaluation. The committee overwhelmingly approved the students' work. The project to create health education brochures, in conjunction with the health system's Patient Education Committee, was a unique way of demonstrating the valuable contribution health sciences librarians can make to the health literacy of patients.

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Transforming Diabetes Self-management

Catherine M. Boss, AHIP, coordinator, Library Services, Booker Health Sciences Library, Jersey Shore University Medical Center, Neptune, NJ; **Joanne Papanicolau**, coordinator, Library Services, John B. Movelie MD Medical Library, Riverview Medical Center, Red Bank, NJ; and **Susan Pistolakis**, medical librarian, Information Resource Center, Ocean Medical Center, Brick, NJ

Objective: Public librarians, retired health care workers, retired medical librarians, and interested adults will be transformed into clinical experts to offer MedlinePlus classes at places where senior citizens congregate. The classes train seniors on how to research and access more accurate online information about diabetes concerns, for improved diabetes self management and healthier lifestyles.

Setting/Participants/Resources: The rising number of newly diagnosed cases of diabetes, coupled with an unusually high percentage of senior citizens in area communities, has precipitated increased requests for health education programs on diabetes and diabetes-related complications.

Method: Classes were offered at regional sites for public librarians on how to effectively search MedlinePlus. Staff nurses, retired health care workers, and retired librarians were recruited for a volunteer instructor pool. Training kits were developed, incorporating linguistically and culturally appropriate teaching materials for adult learners. Partner training sites were established at area senior centers. Attendees were taught how to search for diabetes self-management information. Attendees were tested before and after each training session to determine program effectiveness. Questionnaires will be sent to attendees to determine if they have accessed MedlinePlus since attending the class and to determine if accessing MedlinePlus has improved their diabetes self-management.

Results: Approval for the project was received from the medical center's institutional review board. Three sessions were cancelled. As of February 2006, seven classes have been held with twenty-one participants. Feedback from class evaluations proved positive with the course material and the instructors rated most high. In total, seventeen pretests were completed and eighteen posttests. Participants' were able to answer most questions correctly after the teaching activity. Questionnaires will be sent to the participants beginning in March 2006.

Conclusions: Schools, churches, and libraries will provide a better avenue for future classes, as will active adult communities. These facilities have computer labs that can be used for training "younger" seniors, a group more interested in learning how to search the Internet themselves. The "older" seniors preferred

a home delivery service for information to help manage their diabetes.

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Librarians and Clinicians as Coauthors: A True Success Story

Jill B. Mayer, AHIP, librarian, Health Sciences Library, University of North Carolina–Chapel Hill

Objective: To illustrate the process used for clinicians and librarians to coauthor FPIN Clinical Inquiries and describe the mutual benefits of this team approach to publishing.

Methods: Medical residents and faculty are located across the state. Medical librarians from the Area Health Education Centers (AHECs) and the medical schools have the expertise necessary to perform clinically oriented searches for point-of-care questions. Clinical Inquiries are concise answers to real clinical questions from family physicians. FPIN Clinical Inquiries are published in the *Journal of Family Practice*, in the *American Family Physician*, and on www.fpin.org. Librarians work with the statewide family medicine department to develop and implement a statewide process for coauthoring Clinical Inquiries. Topics to be covered in this poster include: an outline of the annual clinical question selection process, overview of librarian and clinician coauthor responsibilities, librarian selection process, description of evidence-based resources used, and involvement in annual family medicine retreat.

Results/Outcome: The success of this statewide coauthorship process is evident in the fact that librarians and clinicians continue to participate. Fifty-one FPIN Clinical Inquiries have been published by clinician/librarian coauthors, and forty are in process. As AHEC and academic librarians gain EBM searching skills, they ask to join the team. Third-year family medicine residents, with a faculty mentor, are being integrated into the authorial process. Creating FPIN Clinical Inquiries provides an opportunity for many librarians and residents to publish in a peer-reviewed journal for the first time.

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From the Ground Up: Developing a Resource Center for Maternal Health and HIV/AIDS in Ethiopia

Alicia A. Livinski, graduate assistant and student, School of Information and Library Science, University of South Florida–Tampa

Objective: To establish as part of a US government-funded HIV/AIDS project in Ethiopia, a resource center for use by local and international organizations to reinforce the important linkages between maternal health and the prevention of mother-to-child transmission (PMTCT) of HIV/AIDS. A second focus was to serve as a central clearinghouse for all locally produced maternal health and HIV/AIDS information, education, and communication (IEC) materials to encourage collaboration and prevent duplication.

Methods: The White Ribbon Alliance for Safe Motherhood (WRA) as a partner on the HIV/AIDS project worked with local partners to collect locally produced IEC materials and other publications in local languages. A US-based and Ethiopia-based staff member worked together via email and during a two-week field visit to physically set-up the resource center. A simple cataloging system using colored circular stickers was developed to organize the collected reports, manuals, CD-ROMs, videos,

journals, IEC materials, and articles into broad subject headings (i.e., “HIV/AIDS”: red, “reproductive health”: purple, “safe motherhood.” blue, “infectious diseases”: green, “gender”: orange, etc.). As needed, more specific subheadings were developed (i.e., “safe motherhood: complications”). A simple database was developed to track titles owned, number of copies available, and circulation. The resource center was open to all.

Results: Although WRA, its members, the development community and the funding agency had significant support and enthusiasm for the resource center, it experienced difficulties with funding, sustaining interest, maintenance of materials, and usage. The short cycle of US government funding and shifting requirements created a situation that was unsustainable once funding ended and the maintenance of the resource center was left to the local members in Ethiopia to sustain and support.

Conclusion: Accurate and up-to-date clinical information and research is greatly needed by health professionals in the developing world requiring unique and innovative methods and partnerships.

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Schizophrenia: Emerging from the Darkness

Clista Clanton, Web development and education librarian, Baugh Biomedical Library, University of South Alabama–Mobile

Objective: While the term schizophrenia is less than 100 years old, written documents have traced accounts of schizophrenia as far back as ancient Egypt. Over 100,000 new people in the United States alone are diagnosed with schizophrenia each year, and it ranks among the top 10 causes of disability in developed countries worldwide. Sadly, however, this has been one of the most misunderstood of diseases.

Methods: This poster will look at societal perceptions of schizophrenia throughout history, key research that has firmly established schizophrenia as a disease of the brain, and highlight some of the promising new pharmacological treatments that have made such a tremendous difference in the lives of both patients and their families.

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Genetics: From Genes to Genomes

Pamela M. Corley, AHIP, research support librarian, Norris Medical Library, University of Southern California–Los Angeles

Objective: There has been an incredible explosion of information in genetics. This poster will present some of the major landmarks in the history of genetics.

Methods: With images and accompanying text, this poster will illustrate key milestones in genetics. The presentation will use a dual timeline with scientific genetic events presented in the context of the significant events in information sciences and medical librarianship.

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Making Every Step Count: Outreach and Collaborative Programming for Child Health in a Community Health Library

Christine W. Allen, AHIP, community health librarian, Community Health Library; **Barbara Platts, AHIP**, manager, Department of Library Services; and **Susan Wischman**, librarian, Community Health Library, Munson Medical Center, Traverse City, MI

Objective: Obesity in children is a serious public health concern in the state. Working with other health professionals, staff at the Community Health Library designed an outreach and programming strategy to address issues of childhood obesity and children's health in the community.

Description: This poster will illustrate three outreach programs that targeted families with children. Programs would demonstrate how to create healthy lifestyles that include increased physical activity, promote nutritious, healthy meals and snacks, and stress the importance of relaxation. Professional collaboration included hospital dietitians, childbirth educators, exercise specialists, and the county health department.

Setting/Participants: The Community Health Library is a service provided by a regional medical center in a rural midwest state with a county population of nearly 80,000.

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Pathways to Patient Education in the Electronic Medical Record

Lora Robbins, AHIP, librarian, Health Sciences Library, and **Sally A. Harvey, AHIP**, director, Learning Resources, Merrill W. Brown MD Health Sciences Library, Banner Good Samaritan Medical Center, Phoenix, AZ

Objective: To developing patient education information and documentation for the new electronic medical record system for Banner Health.

Methods: A large, decentralized hospital system with over twenty-two facilities in the west, faced with implementing an electronic medical record system. The project required new linkages and cooperation among facilities to participate in the process of developing patient education content for the system. Banner Good Samaritan Medical Center (BGSMC) librarians played a leadership role by helping to coordinate the work groups and providing project management assistance through their positions on the system-wide patient education committee.

Results: Work groups were formed around the most frequent diagnoses seen in the hospital system. Librarians coordinated the work of the groups and the subsequent communication between the system-wide implementation team and information technology staff. The librarians were viewed as politically nonthreatening because they traditionally serve their entire facility's staff and have a history of inter-facility sharing and cooperation. They were also viewed as experts in selecting and filtering patient information due to their positions on both facility and system-wide patient education committees.

Conclusions: The librarians' unique positions made possible the coordination of the subject work groups and their approval into the standardized electronic medical record (EMR). They were able to benefit from their involvement by understanding the EMR, which is usually divorced from nonclinical departments. Finally, the librarians' visibility was enhanced at both the facility and the system level.

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Managing and Disseminating Historical Content via an Archival Knowledge Management Database Application

Christopher Ryland, coordinator; **Mary Teloh**, coordinator, Historical Collections; and **Jeremy Nordmoe**, Coordinator, Archives; Special Collections; and **Qinghua Kou**, health systems analyst programmer, Technical Support and Web Development;

Eskind Biomedical Library, Vanderbilt University Medical Center, Nashville, TN

Objective: To describe the structure, development, and use of a knowledge-management database application designed to manage internal and external aspects of archival knowledge and content.

Methods: Special collections staff and programmers at a large academic health sciences center library developed a database application to manage, disseminate, and leverage knowledge related to archival and special collections, including internal process management and external deployment of archival knowledge. This application manages each step of the archival process, from maintaining data about individuals and organizations to the appraisal, accessioning, processing, and use of archival materials. Adhering to the library's philosophy of modular application development, which requires easy reuse and targeted integration with existing tools, the database operates in alignment with the library's special collections digital library to allow dynamic generation of archival finding aids and metadata records on a near real-time basis. Furthermore, the incorporation of principles of reuse and interoperability into this and other library-developed tools helps to strategically position the library to address future knowledge, content, and document management needs.

Results/Outcome: The library's modular Archives Content Manager database manages over 1,000 records, which include internal, organizational knowledge as well as publicly accessible knowledge codified in online archival finding aids. This strategy of managing public and private knowledge simultaneously positions the library to respond flexibly to constantly evolving archival and technological environments. The application has also increased the efficiency of the archives' workflow by amalgamating previously disparate information and archival metadata in a single application, allowing one-time editing and global updating. The resulting rapid deployment of large numbers of electronic finding aids has increased the visibility of the collections as well as the number of users.

Evaluation Method: The library plans to deploy the Archives Content Manager in an allied institution to verify the expected cross-repository applicability of the system and adaptability to varying institutional needs. Staff will also continue to monitor efficiency and visibility gains resulting from use of the database.

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Transforming 50 Cubic Feet of Papers, 4,000 Slides, and 250 Videotapes into an Archive Celebrating the Life and Work of John C. McDonald

Dee Jones, AHIP, head, Cataloging, and **Marianne Comegys**, director, Medical Library, Louisiana State University Health Sciences Center-Shreveport

Objective: This poster will describe the process of assembling an archive consisting of the primary source materials of John C. McDonald and to further utilize those resources as the basis of a Website. McDonald, chancellor of the Louisiana State University Health Sciences Center-Shreveport (LSUHSC-S), is a pioneering transplant surgeon who was instrumental in the establishment of the national organ sharing network.

Methods: Manuscripts of research papers, seminal files of organ transplant organizations, and papers pertinent to McDonald's thirty-year tenure at LSUHSC-S as chairman of the surgery department, dean, and chancellor will be assembled, sorted,

arranged, and described according to current standards of archival practice. Slides that accompany his research will be digitized and older formats of audiovisuals will be transferred to CD-ROM. A Website highlighting the various aspects of McDonald's career will be developed using images of materials in the archive. An expert in digitization and Website design will be brought in as a consultant. The presenters will collaborate with the LSUHSC-S Foundation to secure private and public sector funding for this project.

Results: A proposal was presented to the McDonald family, and partial funding has been secured. A digitization consultant visited the site and positively evaluated the project. Hardware and software recommended by the consultant were purchased, as were archival boxes and other supplies. Work has begun on identifying and sorting 4,000 slides, readying them for scanning. Manuscripts, organizational files, lectures, and related materials have been sorted and archival processing has begun. Sections of the descriptive finding aid have been written.

Conclusions: The consultant's report provided reassurance that the proposed McDonald project was feasible and worthwhile. Potential funding sources have been identified to provide the additional monies required to underwrite the construction of the Website. During the preliminary work on this project, a number of historically important manuscripts, documents, and videotapes have been discovered that will assure an intellectually stimulating Website.

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Health Sciences Luminaries Poster Series Project

Linda Robinson, associate librarian/Webmaster, Reference Department, Louis Stokes Library, Howard University, Washington, DC

Objective: The program objective was to develop an innovative method of sharing rich histories and information with library users on health sciences luminaries, past and present. A medium other than pathfinders and handouts was sought to provide information on outstanding people of color in the health sciences arena. The format decided upon should attract the attention of library users.

Methods: It was decided to develop a 24" x 36" poster series. These accomplished health professionals are often unknown outside of their respective disciplines. This program takes place at an academic health sciences library located in an urban setting. The population served is students and faculty in the medical, dental, nursing, and allied health professions. Campus and community organizations also view the displays during meetings and social events held at the library. The names are accessed from such sources as reference questions and suggestions from faculty, staff and special collections materials. Biographies and professional accomplishments are researched. One individual is selected as a subject for poster development. A poster has been developed each calendar quarter, for one year. The series presently consists of four posters reflecting the fields of medicine, nursing, dentistry, and pharmacy. This will be an annual poster series program.

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The Retreat at York: Providing a Transformation to Humane Treatment of the Mentally Ill in the 19th Century

Joan M. Stoddart, AHIP, deputy director, Spencer S. Eccles Health Sciences Library, University of Utah—Salt Lake City

Objective: This poster will examine the role of the Retreat at York, an English asylum which was founded in 1796 by the York Society of Friends (The Quakers) led by William Tuke. It is credited with revolutionizing the attitude and treatment for the mentally ill in England from cruelty, patient restraint, and filth to one of dignity, decency, and cleanliness.

Methods: The York Retreat can be credited with transforming the treatment of the mentally ill by utilizing what was called "moral treatment," which acknowledged the connection between a sound mind and body, reflecting the Quaker belief in the importance of inner discipline and control. It largely abandoned the practices common to the day such as chaining, beating, purging, and bleeding. Instead, the Retreat at York offered clean and comfortable rooms and activities including daily chores and outdoor exercise. It provided a homelike atmosphere with surrounding grounds that emphasized orderliness and serenity and an opportunity to heal. A treatise titled *A Description of the Retreat, an Institution near York for Insane Persons* was written in 1813 by Samuel Tuke and is thought to be the first full-length written account of a mental institution.

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Digital Oral History: Using the Web to Give History New Life

Barbara Halbrook, associate director, Access Services, and **Ellen Dubinsky**, digital archives librarian, Bernard Becker Medical Library, Washington University School of Medicine, St. Louis, MO

Purpose: To illustrate the use of the Web to bring attention to unique materials and encourage faculty to contribute their memoirs to the history of the school of medicine. Increased use of historical material once they are Web based will also be presented.

Methods: Between 1959 and 1999, Becker Medical Library recorded more than fifty oral histories of Washington University's faculty on reel-to-reel audiotape. Although the audiotapes were transcribed, nothing else was done with them and the oral histories were essentially forgotten—hidden away in archival boxes. During the past year, the oral histories, including one of Nobel Prize winner Carl Cori, have been digitized and presented, with their transcripts, on the Web. Web presentation has given new life to Becker Library's oral history materials that had not been used for at least two decades. It has also led to new interest in medical school history in oral format. Four new oral histories have been recorded on digital video and others are planned.

Results: The digital oral history project has attracted interest from local and national scholars. Two school of medicine faculty have volunteered and conducted new oral history interviews and have other interviews planned. Other faculty and staff have suggested candidates for interviews. In the few months, the Website has been available, it has received more than 500 visits lasting more than 5 minutes. Use of the oral histories is monitored and reported through Analog 6.0 and Report Magic 2.21. Anecdotally, we have received favorable comments from faculty and historians

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Development of a Service Philosophy as a Change Management Tool

Natalie K. Reed, AHIP, associate director, and **Terrance M. Burton**, director, Ebling Library, University of Wisconsin–Madison

Objective: Consolidating five circulation and reference desks into one unified service desk in a brand new building was going to be a major change for a large academic library staff.

Methods: Administration planned far ahead and applied appropriate change management principles so that the merger would be a positive experience for everyone. One effective tool was the process of developing a service philosophy. This poster will describe this inclusive process and present the critical elements on which all agreed.

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Librarians as Key Partners in Campus-wide University-Community Initiatives

Jean P. Shipman, AHIP, director and associate university librarian, VCU Libraries, and **Catharine S. Canevari**, interim deputy director, Tompkins-McCaw Library for the Health Sciences; **Jill S. Stover**, undergraduate services librarian, James Branch Cabell Library; and **Rachel A. Gyore**, NLM associate fellow, Tompkins-McCaw Library for the Health Sciences; Virginia Commonwealth University–Richmond

Objective: As universities partner in their communities, new types of initiatives are offering librarians the opportunity to play major roles as organizers of university faculty efforts and as community leaders while being recognized for their group facilitation skills. This poster describes four community projects and ways the university librarians have worked with teaching faculty on advancing community initiatives.

Methods: As new university community-based initiatives formed, librarians joined these teams through appointment, invitation, and referral. Librarians are members of four community planning teams including a Center for Health Disparities, a Center for Health Communications, University Community Solutions, and a Health Literacy R01 Grant Planning Team. Librarians became key team players as a result of their communication skills and abilities to disseminate information effectively. A variety of methods were employed to contribute to team activities, including assisting with planning agendas, writing proposals, identifying additional partners, organizing communication channels to share information effectively, inventorying faculty expertise and contributions, creating specialized topic guides, gathering data to assess and track progress, and presenting results to the broader university community. Librarians are becoming increasingly visible and highly valued partners by contributing their information management skills to these new university community initiatives.

Results/Conclusions: Librarians continue to be a vital part of the various Virginia Commonwealth University (VCU) university-community initiatives. The VCU Health System Board of Visitors approved the formation of the Center for Health Disparities and a center director has been hired. The Tompkins-McCaw Library director participated in the interviews for the director position. Plans for the Health Literacy R01 Grant continue to be formulated through various team meetings and email. Minutes of the meetings are compiled by library staff. A smaller grant

proposal has been submitted to the local Area Health Education Center (AHEC) for funding to collect pilot data in support of the larger R01 grant. The Center for Health Communications has yet to be approved. In all cases, librarians continue to serve as key promoters and developers of these various VCU community-university initiatives.

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24/7 Operations Across Space and Time, from Planning to Implementation

Janette Shaffer, AHIP, associate director, and **Jane L. Blumenthal, AHIP**, library director/assistant dean, Knowledge Management, Dahlgren Memorial Library, Georgetown University Medical Center, Washington, DC, and **Vani Murthy**, head Librarian, Technical Services, Rockville Campus Library, Montgomery College, Rockville, MD

Purpose: This poster will describe the development and implementation of a recently completed ground floor renovation for 24/7 operations. It will provide information on the necessary changes to implement this type of operation and address some of the challenges and lessons learned during this operational change. We will provide a practical guide to those considering a similar project.

Setting: An academic health sciences library in an urban setting.
Description: Since its 1971 construction, the library had not been updated, and campus administration, staff, and students agreed that a renovation was necessary. In addition, students requested that the library remain open 24 hours per day, 7 days per week to meet their need for access to study space, computing labs, and the collection. To sustain this request in the long-term, we needed to secure our collection, building, and supplies for 24/7 operations. We also had to allow users independent access to our collection during unstaffed hours. We had to deal with relocating our staff and entrance during the renovation and manage renovation-related issues such as asbestos abatement. We will identify the process for managing these issues, the staff time required by the project, and the key players in this undertaking.

Results: After a 6-month assessment, moving to 24/7 operations has proved successful. Dahlgren Library was able to shift to around-the-clock operations without significantly increasing its operating costs. We have increased attendance by an average of 22% per month. Anecdotally user satisfaction is high, however, we will conduct a 12 month satisfaction survey in July to support this assumption. Improving the quality of our after-hour security remains a challenge. We are currently working on making adjustments to ensure the protection of our collection and provide better patron access.

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Work Transformation in the Technical Services and Interlibrary Loan Units of an Academic Medical Library

Mary Blackwelder, AHIP, director, MCW Libraries, Medical College of Wisconsin–Milwaukee

Objective: To transform work in the technical services and interlibrary loan departments as a result of the changing electronic environment, to integrate the work of these two departments into one, to select a new name for the combined new department, and to redesign the work space to more effectively accommodate the resulting work transformation.

Methods: Using the principles of work redesign as outlined by

library consultant Maureen Sullivan, thirteen staff members—four from interlibrary loan, five from technical services, three supervising librarians, and the director—met twice monthly for ninety minutes from August 2004 through January 2005 to outline, discuss, and analyze the work processes and activities of each participating staff member, excluding the director, with a goal of transforming their work to better meet the needs of customers. At the kick-off meeting, the director presented an overview of the steps in work redesign. Initially the two groups, interlibrary loan and technical services, met separately to define their customers, identify their functions, and detail their work tasks. The groups met jointly during December and January to cluster tasks with primary functions, identify potential names for the new combined department and begin planning for space redesign.

Results: Although not without bumps in the road and the inevitable feelings of unsettledness, the interlibrary loan and technical services departments defined their customers, focused on their primary functions, and streamlined their work tasks. The two departments combined into one, newly named Collection Management and Resource Sharing (CMARS). Work space was redesigned and renovation is in process. Participants evaluated the process and comments include: “an engaging and energizing process”; “moved from complaining to commitment”; “gave up some of the self and focused on the whole”; “felt I had some control over the change process”; “gave me a sense of meaning and purpose to what I do”; “gained an appreciation and recognition of other staff’s work”; “I felt engaged and energized.”

Conclusions: With a focus on people—the customer—defined as both library users and library staff, the two teams using the work redesign process transformed their workplace from A-Z.

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Changing Space Needs: A First-floor Renovation and Assessing its Impact on Designing the Electronic Library for the 21st Century

Patricia Wilson, associate director, Public Services; **Anne Linton**, AHIP, director, Library Services; and **Kathe Obrig**, associate director, Collections and Access Services; Himmelfarb Health Sciences Library, The George Washington University, Washington, DC

Objective: An increase in electronic resources, modifications in both users’ and staff’s working styles, and an internal initiative to create a single service desk, all resulted in a recent redesign of the first floor of an urban medical school library. This poster will demonstrate how completion of that project has affected users’ perception of the library and influenced future plans to renovate other library areas.

Methods: Initial renovation project objectives addressed a demand for collaborative study space with wireless access, increased computer availability for electronic resources, reduced space taken by print journals and indexes, and the need for a combined user services desk. Post-renovation, a library wide staff meeting identified a number of public relations efforts to market the new library focus. We also assessed our efforts by observing patron space usage, gate count and anecdotal patron responses given to staff members.

Results: The renovation budget was small. Most library furniture was redeployed. A joint service desk and some seating was purchased. Current journal issues were moved for shelving with

bound journals. A “core” collection of journals remained in a browsing area. Old indexes were removed if available online. The remainder were relocated. Reference staff moved into newly open space, reuniting for the first time in many years. The remaining space was dedicated to new collaborative study space.

Conclusions: The open, light-filled spaces have attracted more users. Positive acceptance of the first-floor changes created a domino effect. A new project includes moving classroom services to a location next to the user services desk, creating a leisure area on the third floor. The audiovisual collection is undergoing reassessment. A computer lab is being redesigned for maximum utilization. Our initial project and future plans have had a positive impact on service and space utilization

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Do ... Let Your Children Grow up to be Librarians: Transformations to Leadership

Beverly Murphy, AHIP, assistant director, Marketing and Publications, and **Virginia Carden**, AHIP, administrative research librarian, Duke University Medical Center Library, Duke University Medical Center, Durham, NC

Objective: Are leaders born or created? This poster will explore how several of our leaders in the medical library profession have transformed from their early beginnings to being part of the vanguard.

Methods: Health sciences libraries and librarians have undergone considerable change over the years in nature, function, and conditions. With this change has come the need for highly skilled and successful leaders. To assess the transformation of several of our key leaders, a mini survey will be conducted of the last six or seven presidents of the Medical Library Association to determine how people, places, events, and activities may have shaped their leadership abilities. Who or what were their influences or role models? Are there commonalities? This survey will explore the leadership pathways they have taken.

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Library Use of Technology

Wallace McLendon, deputy director, Health Sciences Library, University of North Carolina—Chapel Hill

Objective: To present a model to stimulate discussion concerning gaps between the library’s rate of integrating relevant technology into services and programs and the rate of technological change occurring in one’s environment.

Methods: In business management, models are frequently used to stimulate discussion among decision makers concerning the use of tools to enhance or replace a product or a service. This poster will present a model that facilitates the analysis of five elements concerning the library’s use of technology: (1) the general rate of technological change in predefined categories, (2) the rate of the library’s integration of technology integration into existing and new services, (3) gaps between technology change and the rate of library change, (4) the relevancy of the gaps (i.e., has the change in technology occurred in areas that impact the library’s values, mission, goals, and services), and (5) determining steps to close those gaps to enhance or replace products and/or services. Rather than representing an equation that pretends to provide answers to an extremely dynamic issue, this model provides a means for a group of managers to begin

analyzing the complex relationships between transforming library services and the rate of technological change.

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Ensuring a Safer Future for Your Library: Taking a Leadership Role in Developing a Disaster Plan for Your Library

Daniel T. Wilson, assistant director, Collection Management and Access Services; **Susan S. Yowell**, project assistant; and **Gretchen N. Arnold, AHIP**, interim director and associate dean; Claude Moore Health Sciences Library, University of Virginia—Charlottesville

Objective: This poster will describe an effective process for creating a library's comprehensive "Disaster Plan." The presentation will show the leadership and organizational structure for initiating and carrying out the project, as well as the steps involved in creating a disaster plan that can be tailored to any library's situation.

Methods: Our associate director for library operations spearheaded an initiative to create a comprehensive disaster plan for our library, primarily in response to the heightened awareness of emergency and disaster situations resulting from the events of September 11, 2001. In the summer of 2004, she designated the assistant director for collection management and access services to launch the project, which was undertaken by the circulation supervisor. We presented the finished product to the Library Operating Committee in March 2005. This poster will highlight the processes as well as the collaborative nature of the project under a designated manager. It will also show how leading the various library departments in creating the comprehensive plan resulted in greater awareness and appreciation of our common goals and our commitment to safety and continuity of service for all staff, our patrons, and our collections.

Results: All department heads have copies of the disaster plan, one copy on-site and one copy off-site. All staff have received training, including walking through evacuation routes. More intense training has been given to circulation staff, who are responsible for initiating most emergency responses. The plan contains procedures for basic services and other supporting documentation for each library department, so that in the event of an emergency that creates staff shortages, the library can still provide service to our patrons. The health system's emergency preparedness director reviewed our finished disaster plan. She commended us for its comprehensive nature, the supporting documentation, and its overall structure, as well as for having put together a "first of its kind." An opportunity for a self-evaluation occurred following our response to a "microburst" in the summer of 2005. The poster will address changes that we made to staff disaster training following this event.

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Job Descriptions in Perpetual Evolution: A Result of "Going Electronic"

Kathe S. Obrig, associate director, Collections and Access Services; **Anne Linton, AHIP**, director Library Services; and **Cynthia Swope**, print and electronic serials librarian; Himmelfarb Health Sciences Library, George Washington University, Washington, DC

Objective: The increased use of electronic journal titles accompanied by fewer print title subscriptions has resulted in

job descriptions in the serials department that no longer describe actual activities required to keep track of and prepare journals for use by patrons. Beginning with revision of the position description of the serials librarian to reflect both print and electronic duties, the serials department needed to rewrite the remaining jobs to address the evolving increase in electronic journals.

Methods: To create job descriptions that more accurately reflected work of the department, a list of all duties that had to be accomplished in the department was made. This included some of the duties of the electronic resources librarian, who worked with but was not part of the serials department. Many of these duties were technical and having them accomplished by a technician would free up the librarian for higher-level duties. Statistics were consulted to determine exactly how many journals were currently being bound. Cataloging statistics were also consulted as increased electronic titles affected the work load of that area. Duties were then divided among the positions and allocated considering function and volume in each format.

Results: Each job description was rewritten to reflect the current serials organization. The library technician position, which had formerly been a 0.66 full-time equivalent (FTE), became full time. The bindery job became a part-time position. The more technical duties having to do with serials that were previously accomplished by the electronic resources librarian are in the process of being fully moved to the library technician. With a decreasing number of print journals to bind, half-time should prove adequate for the bindery. Hopefully, this new arrangement will also allow more opportunities for the serials librarian to continue to assess the changes with increased electronic resources.

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Our Challenge for the Future: Library Reorganization

Beverly Gresehover, associate director, Resources; **Alexa Mayo, AHIP**, associate director, Services; and **M.J. Tooley, AHIP**, executive director; Health Sciences and Human Services Library, University of Maryland—Baltimore

Objective: This poster will report on the strategies, processes, and tools used to plan and implement the reorganization of a large, academic health sciences library with seventy-five full-time equivalents (FTEs). Challenges and opportunities facing a library-wide reorganization will be presented.

Methods: The reorganization team began in fall 2004 to assess the library's goals, staffing, and workflow to create a responsive organizational structure that reflects a changing environment. Over three months, members of the team facilitated twenty-three large and small focus group-style interviews with staff to assess the challenges and opportunities in a new model. The interview team developed questions to learn about the evolving roles of staff and ways work activities could be changed to enhance productivity and improve work life at the library. To develop the new structure, the planning team analyzed the interview data, along with library statistics, trends for future work, workflow models, and departmental planning recommendations. Implementation of the new structure began in July 2005.

Results: Implementation of a new organizational model for the library occurred in stages and continues today. In July 2005, the library moved from a structure in which work was organized among three divisions—resources management, information and

instructional services and access services—into two divisions, resources and services. Collection management (shelving), collection development, interlibrary loan, and reserve processing proved to be the most difficult activities to place in the new structure, given that they have both public service and behind-the-scene components. In July 2006, a team will begin to evaluate the success of the organizational changes. Library staff will be invited to participate in an anonymous online survey to gather input about the changes. Based on survey results, focus groups and other group discussions will also be planned.

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Return on Investment: Is Virtual Reference Worth the Cost?

Susan C. Whitmore, deputy director, NIH Library, National Institutes of Health, Bethesda, MD

Objective: To determine if the provision of a virtual or digital reference service is cost effective and meets the changing strategic objectives of the library.

Methods: After four years of offering customers of a large biomedical research library virtual reference services, a cost-benefit analysis was performed. The decision to continue or terminate the service was based on an analysis of the cost of providing the service compared to the cost of other means of providing reference service, trends in usage over the four-year period, the results of service evaluation surveys, and the results of a user needs survey.

Results: The expense of providing a virtual reference service was determined not to be cost effective. The cost of answering a question using the service was found to be several times that of answering a question at the information desk. During the 4 years that the service was in use the number of questions received rose from an average of 40 per month to an average of 100 per month during the last 2 years but did not continue to rise. During the same period, questions received at the information desk declined but still remained about 10 times as high as those received by virtual reference. While user satisfaction surveys of the virtual reference service revealed that customers were satisfied with the service (average rating 4.4 out of 5), a user needs survey conducted in 2005 revealed that customers preferred to ask questions (44.5%) and request literature searches (34.2%) via email rather than other means. Finally, there were recurring technological problems that inconvenienced customers, and a planned change in the vendor's software that would inhibit the ability of the librarian and the customer to cobrowse proprietary Web pages removed what had originally been one of the selling points of the software.

Conclusions: Given the need to have staff who have time to pursue new strategic objectives and the higher cost/low benefit of the service, the virtual reference service was discontinued.

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Transforming Librarianship: Librarians as Consumer Health Video Producers

Heather Brown, distance education/outreach librarian; **Teresa Hartman**, head, Education Department; **Marty Magee**, National Network of Libraries of Medicine Nebraska liaison; and **Cynthia Schmidt**, reference librarian; McGoogan Library of Medicine, University of Nebraska Medical Center—Omaha; and, **Alison Bobal**, librarian, Valley Library, Oregon State University—Corvallis

Objective: International cultures exist in all library audiences. Addressing the basic information needs of these consumers can offer librarians new opportunities for outreach programs. The focus of this project was to create and distribute information to an increasingly diverse and non-English speaking population base in Nebraska about accessing the medical system and finding consumer health information.

Methods: A group of Nebraska medical librarians selected video as the format and identified the target audience as young children. Further, they determined it would include steps involved in making a doctor's appointment, checking in at the reception desk, undergoing a physical exam, and visiting a public library for further health information. The video project is unique in that it is easily replicable for any international culture taking part in the US health care system. It was filmed as a silent movie and has been produced in multiple versions with narrated translations in English, Spanish, and Sudanese-Nuer. The project could be a model for other librarians who want to plan new ventures.

Results: The funding for this \$18,000 project was provided by a grant from the University of Nebraska Medical Center. The final product, a 12-minute video and DVD, addressed a medical health issue relevant to recent immigrants, while also highlighting consumer health resources available from libraries. It has been distributed to more than 300 libraries, schools, and community agencies. Evaluation of its use and effectiveness is planned at a later date.

Conclusion: The video format was chosen because of its obvious superiority in conveying unfamiliar information to young children. For the library team, this video outreach project was a new and surprisingly enjoyable challenge. The production process used could be replicated easily in other communities, for other health issues, and in other languages.

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Transitioning to the Latest Teaching Technologies: Responding to Faculty Needs

Jeanne M. Le Ber, education services, Spencer S. Eccles Health Sciences Library, University of Utah—Salt Lake City

Objective: Librarians took a leadership role to assess health sciences faculty needs as they transitioned from obsolete classroom spaces to a state-of-the-art education facility equipped with current instruction technologies.

Methods: The recently completed health sciences education building opened with the start of the 2005 academic year. The library played a significant role in the design and functionality of the facility and is now responsible for managing the classroom technology and providing faculty support. Proactively, the library's education team conducted an online faculty needs assessment prior to the start of the semester to determine faculty readiness for using the new technologies. Results from this survey were used to develop a training program for faculty. A follow-up survey was conducted in later fall 2005 to determine if the library was successful in meeting faculty needs and concerns.

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The Moving of a Medical School After Hurricane Katrina: Lessons Learned

Deborah D. Halsted, associate director, Public Services & Operations, HAM-TMC Library, Houston Academy of Medicine—Texas Medical Center, Houston, TX; **Philip Walker**, reference

librarian, Rudolph Matas Medical Library, Tulane University Medical School, New Orleans, LA; **Elizabeth K. Eaton**, executive director, HAM-TMC Library, Houston Academy of Medicine-Texas Medical Center, Houston, TX; and **Cathy Montoya**, director, Education Resource Center, Baylor College of Medicine, Houston, TX

Objective: In October 2005, the Tulane University Medical and Public Health Schools relocated to Houston, TX, following the tragic events caused by Hurricane Katrina. This move caused three libraries to assess the needs of faculty, students, residents, interns, and staff from Tulane.

Methods: While the Tulane schools relocated to Baylor College of Medicine and the University of Texas, the library of record for the Texas Medical Center (TMC) is the Houston Academy of Medicine (HAM)-TMC Library. Only one Tulane reference librarian relocated temporarily to Houston and volunteered to work in the HAM-TMC library information services department. When he arrived, everyone involved asked how the others from Tulane fare regarding their information needs? How did the three Houston institutions affected by the relocation cope with the influx of an entire medical school? Could this be done successfully? At what cost? Would the vendors cooperate by moving subscriptions? To answer, a survey was distributed to all Tulane people in Houston, asking basic questions concerning electronic resource needs, service space and facilities needs, and ways their library usage had changed since the move.

Results and Conclusions: Because the survey is currently being distributed via Survey Monkey, we do not have the data to report by the poster abstract submission deadlines. More to follow.

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Library Evolution: Moving a Library on a New Campus

Peggy Tahir, manager, Public Services, and **Anneliese Taylor**, manager, Collection Development, Kalmanovitz Library and Center for Knowledge Management, and **Julie Piacentine**, Librarian, Public Services, Mission Bay Library, University of California-San Francisco

Objective: This poster will report on the process of moving into a new facility on the Mission Bay campus.

Methods: Over the last two years, the library has maintained a small branch at a newly developed second campus in the Mission Bay area of San Francisco. That library recently acquired additional space in a new Community Center building on that campus. The Mission Bay library move from a space in a building mainly populated by laboratories to a Community Center environment has been a complex and exciting process for the library, involving staff at all levels of the organization. The poster will report on the many intricacies of the planning process, including user surveys, collection decisions, staffing and recruitment for new positions, Web page development, marketing efforts, and coordination of the physical move. The new library space included room for a computer classroom, and issues surrounding development of the computer lab will also be outlined. Because the library is also maintaining its original library space on the campus, the poster will also report on decisions regarding the use of that space and its transition from a fully staffed library facility to a quiet study area that is accessible 24/7.

Results: In October 2005, the Mission Bay library successfully moved from its original location in Genentech Hall to its current

location in the Mission Bay Community Center. We are currently in process of recruiting additional staff for the library, including a librarian who will be responsible for outreach to the Mission Bay research community. Through gate counter features in both the new library and the original space in Genentech Hall, we are monitoring use of both locations. We will also be conducting additional user surveys to determine user needs and satisfaction with library services on the Mission Bay campus.

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Information Professionals in the Interprofessional Team: Past, Present, and Future

Joanne Rich, information management librarian,; **Ellen Howard**, information management librarian; and **Neil Rambo**, associate director; Health Sciences Library, University of Washington-Seattle

Objective: The health sciences library (HSL) is a large, academic library. Because of HSL's proactive role in biomedical informatics, health sciences leadership have recognized the need to include information professionals, faculty, and students in the development of an interprofessional educational effort. This poster will describe the development of the information professional's roles in a health sciences interprofessional educational program.

Methods: The Center for Health Sciences Interprofessional Education (CHSIE) is an institutionally supported program dedicated to creating an atmosphere of openness and commitment to interprofessional practice for the next century. The CHSIE leads an attempt to foster a truly interprofessional education experience for health sciences students. HSL librarians, as information professionals, have been part of the organizational structure of CHSIE since its inception eight years ago and have contributed to the development and sustainability of its programs. Librarian activities have encompassed advisory input, contribution to grant applications, support of student practica and formal curriculum classes, and research and manuscript collaborations. Over time, the librarians have evolved specific roles that enhance the interprofessional education of health sciences students and faculty. This model provides health sciences libraries and librarians with options that add to the perceived value of the health sciences library and its librarians.

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Looking at the Glass Half Full...Rebuilding Ochsner Clinic Foundation Library and Archives in New Orleans, Louisiana

Ethel U. Madden, director, Ochsner Clinic Foundation Library and Archives, Ochsner Clinic Foundation, New Orleans, LA

Objective: After Hurricane Katrina, thousands of New Orleans area health care professionals were displaced. Ochsner Clinic Foundation Library sought ways to promote library services to not only its own employees, but to welcome the displaced physicians, students, and other allied health professionals.

Methods: The Ochsner Library was the first library to reopen with its own library staff in New Orleans because of the following:

1. The director volunteered to serve in roles outside of the Ochsner Library.
2. FEMA representatives were allowed to support employees and patients inside of the library.

3. The library staff maintained prior commitments to teach library inservices to Baton Rouge groups after the storm.
4. The library staff submitted a grant proposal with the intent of assisting all displaced southeastern Louisiana health care professionals with their information needs.
5. The library staff promoted the National Library of Medicine (NLM) services by designing meals ready to eat for homeless employees living in New Orleans hotels.
6. The library hosted many fun post-Katrina events.

Results: As librarians, we work hard to prepare for the worst case scenario, but no one could have been prepared for Hurricane Katrina and the levee breaks in New Orleans. Lessons learned by Ochsner librarians include the significant need for a strong virtual library. Ochsner physicians were publishing for major journals the week of the storm and using the library's electronic resources for their research. They could not rely on Ochsner Library's print collection because the library was locked down to prevent looting. Print materials could not be obtained through the United States Post Office for months following Hurricane Katrina. Another serious lesson learned was the ability to lead when the world is literally falling apart around you. Librarians need to be visible to administrators in times of disaster. Be willing to "break the rules," be flexible, and look for the opportunities that come your way to allow your library to shine.

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Accuracy of References in the Ophthalmic Literature

Gale A. Oren, AHIP, librarian, Kellogg Eye Center, University of Michigan—Ann Arbor, and, **Maureen M. Watson, AHIP**, optometry librarian, Michigan College of Optometry, Ferris State University, Big Rapids, MI

Objective: To assess the accuracy of bibliographic citations in a number of specialty journals in the ophthalmic literature. To compare the results with earlier studies involving other medical specialties and among publishers. To discuss possible roles for librarians in assuring a higher accuracy rate for published citations.

Methods: Eight to ten journal titles, distributed among a variety of publishers, will be selected. A random sample of 100 references per journal published in the year 2004 will be reviewed for citation accuracy by comparing with the original article in hand (when humanly possible). Errors will then be classified, analyzed, and compared with previous studies.

Anticipated Results: A high rate of error among cited references in a published journal article affects the credibility both of the author(s) and the publisher. These errors result in sloppy presentation, difficulty in retrieving incorrectly cited documents, and credit not given to the correct authors and, in extreme cases, they demonstrate a lack of integrity. We will categorize the errors and learn if the error rate in the ophthalmic literature is higher, lower, or consistent with known values.

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Identifying Targets for Training Public Health Workers: The Gap Score Adapted to a Needs Assessment Instrument

Marie T. Ascher, AHIP, department head, Reference, and **Diana J. Cunningham, AHIP**, associate dean and director, Health Sciences Library, New York Medical College—Valhalla

Objective: To identify targets for training public health workers

by using a "gap score" approach.

Methods: The Public Health Information Partners (PHIP) team developed a needs assessment adapting recommended competencies from the consensus document, *Public Health Informatics Competencies*, combined with a Vanderbilt University benchmarking survey. Participants from three county departments of health self-reported how proficient they felt they were for each competency and how relevant they felt each competency was to their work. Using these measures, the PHIP team computed a mean gap score for each competency: relevance mean - proficiency mean = gap. Gap scores were calculated for each Council on Linkages job level (frontline staff, senior/technical staff, supervisory/management staff, and clerical staff). In addition, gap scores were calculated based on the difference between the consensus recommendation and the self-reported proficiency and relevance means. This gap analysis methodology was adapted from the ARL LibQual+ surveys. This poster explores the usefulness of the gap score as an effective measure to identify targets for developing training for the public health workforce and to benchmark the self-evaluated status quo of respondents relative to recommendations.

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Pyramid Schemes: The Fusion of Evidence Levels and Information Resources

Karen Odato, research and education librarian, Dartmouth Biomedical Libraries, Dartmouth College, Hanover, NH; **Jan Glover, AHIP**, education services librarian, Cushing/Whitney Medical Library, Yale School of Medicine, New Haven, CT; **David Izzo**, manager, Computing and Media Services, Dartmouth Biomedical Libraries, Dartmouth College, Hanover, NH; and **Lei Wang**, instructional design librarian, Cushing/Whitney Medical Library, Yale School of Medicine, New Haven, CT

Objective: To create a Web-based tool that librarians can customize at their own institutions to help clinicians find and use information resources that support evidence-based practice.

Methods: The ACP Journal Club, Clinical Evidence, Cochrane Database, bmjupdates, DARE, PubMed's Clinical Queries—it's a jungle out there! Evidence-based tools are designed to reduce the time it takes clinicians to find the "best" answers to clinical questions. But the proliferation of these resources may, in fact, be increasing confusion and costing time. Pyramid-shaped graphics have traditionally been used to represent hierarchical "levels of evidence." Other graphics have similarly been developed to represent hierarchies of "evidence-based resources." While the levels-of-evidence pyramid is widely accepted, there is no consensus as to how the evidence-based-resources pyramid should be organized. The authors will create a graphical tool that (a) addresses both levels of evidence and information resources and (b) helps library users select and use appropriate evidence-based information. It will include definitions, time-saving tips, and other value-added links. We intend to make it easy for librarians to customize the tool with links to their locally available resources and to adapt it for subject-specific variations. We will test our tool with different clinician groups and types of clinical questions.

The Impact of Technology on the User Education Process

Jill E. Foust, Web manager/reference librarian, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

Objective: To determine the influence of technology on traditional library-based classroom instruction programs over a seven-year period. Advances in technology have revolutionized approaches to instruction including videoconferencing, online tutorials, and outreach and liaison services.

Methods: A 7-year retrospective statistical analysis of attendance trends of 13 in-house user education classes taught at an academic health sciences library that supports 6 health sciences schools and a large academic medical system. All classes reviewed were taught in a computer classroom for 1.5 to 2 hours. According to the library's gate count, the annual average percentage change of in-house library users has decreased 5.3% over the past 7 years. Yet, attendance at traditional in-house classes such as "Ovid MEDLINE," "PubMed," and "PowerPoint" remained steady. Attendance at trendier classes such as "EndNote" and "Searching for Evidence Based Literature" rose dramatically. For other one-time popular classes such as "Health Resources on the WWW" and "Netscape," attendance started strong but declined as patrons became more familiar with new technologies.

Results: A linear analysis comparing average annual class attendance and total annual class attendance from 1998–2005 shows upward trends for two classes ("EndNote," "Evidence Based Medicine Resources"), mixed trends for three classes ("PubMed," "Micromedex/Clinical Information Resources," "PowerPoint"), and a flat trend for one class ("Ovid MEDLINE"). A moderate downward trend is indicated for one class ("Adobe Photoshop") and one class ("Advanced Ovid MEDLINE") showed a significant discrepancy between average and total attendance indicating no clear trend. In addition, five classes ("ProCite," "Health Resources on the WWW," "Search Engines," "Current Contents/Web of Science," "Netscape") are no longer taught due to significant downward trends. Data such as this can be valuable in assessing a library's user education program.

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Changing Teaching Methodologies to Improve Retention of Information Retrieval Skills: Strategy, Results, and Next Steps

Enid M. Geyer, AHIP, associate dean, Information Resources and Technology, and **D. Elizabeth Irish**, AHIP, assistant director, Education and Administrative Services, Schaffer Library of Health Sciences, Albany Medical College, Albany, NY

Objective: To determine if switching to a predominately self-directed, tutorial-based curriculum with increased integration into themes and clerkships impacts student retention.

Methods: At the start of the academic year, prior to any informatics instruction, an anonymous quiz is distributed to each of the four medical school classes to gather data on retention levels. Freshmen complete the survey to establish an entry baseline. Skill retrieval questions are based on exam questions from the LaGrange Medical Informatics Theme. Students are instructed to select "Don't know" to questions they cannot answer. In 2003/04, distribution was both print and electronic

and occurred in classes and through email. In 2004/05, electronic distribution only occurred during clerkship orientation and at registration. In 2005/06, distribution occurred during student registration and by email.

Results: Results indicate a varying increase in retention. The 2007 class results indicate an increase in general searching skills between their freshmen and sophomore years, ranging from a 1%–43% increase/question. As juniors, there was a marked increase in evidence-based medicine (EBM) questions (10%–35%). The 2006 class demonstrated strong EBM retention levels as juniors (23%–40%) and with another increase as seniors (11%–15%). Comparing juniors, the 2006 class demonstrated a higher EBM retention (41%–26%) compared with the 2005 class (2%–65%), and the 2007 class received mixed results. Comparing seniors' perceptions as to the value of informatics education, the 2006 and 2005 classes rated higher than the 2004 class (57% vs. 70% vs. 82%). This dramatic increase correlates with the shift in the 2nd year curriculum from classroom sessions to self-based tutorials with integration into other themes and increased clerkship integration in the 3rd year.

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Utilizing an Interdisciplinary Model to Promote Evidence-based Practice in an Acute Care Hospital

Michele Klein-Fedyshin, AHIP, manager, Library Services, Health Sciences Library, University of Pittsburgh, Pittsburgh, PA, and **Carol M. Patton**, professor and director, Nursing Programs, Natural and Physical Sciences, Chatham College, Pittsburgh, PA.

Objective: The Nursing Research Council at a teaching hospital is integrating evidence-based practice into clinical nursing practice. This presentation will describe:

- a collaborative interdisciplinary model introducing evidence-based skill sets and competencies for nurses
- roles of interdisciplinary team members
- nursing practice and scholarship outcomes resulting from the collaboration
- ways the interdisciplinary model facilitated partnership and success

Setting/Participants/Methods: The setting for the interdisciplinary model for evidence-based practice is a 486-bed acute care, teaching hospital. The interdisciplinary model focused on developing evidence-based skill sets and competencies in evidence-based practice for nursing staff with a variety of backgrounds and proficiencies. Specific strategies for success in the model include developing awareness of and sensitivity to the need for a thorough review of existing literature, skill sets to find the best evidence, and techniques for literature searches performed in the library. The initiative trained clinical nurses to search, conduct a critical literature review, and perform a meta-analysis impacting patient care from a sound, scientific, body of knowledge. The interdisciplinary model team includes a doctorally prepared nurse researcher, library manager, unit leaders, and nursing staff development.

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Information Management Software for Health Sciences Libraries: Looking Back and Looking Forward

Inhye Kim Son, AHIP, electronic services and research librarian; **Elaine Attridge**, clinical and nursing librarian; and

Patricia Greenberg, education librarian; Claude Moore Health Sciences Library, University of Virginia–Charlottesville

Objective: This poster will discuss researchers' information-organizing methods and trends by examining our class roster and consultation participants' information for the last ten years. It will also provide insights on important features for information management software in the future.

Methods: Over the past several decades, bibliographic management has played a last part in researchers' work. Reference management software is a tremendous help to them in managing, organizing, and formatting references. For the past ten years, the library has supported several bibliographic management software programs. Recently Refworks, a Web-based bibliographic management program has been added to the collection of software programs that we support. This poster examined and analyzed the trend of information management needs of clientele and supporting statistical information. By finding out trends in our clients' information-seeking and organizing behavior, we can better fulfill our mission of supporting clientele not only with the desired information, but also in evaluating appropriate tools to manage information. Using class rosters and one-on-one consultation information sheets that were collected for the past ten years, we analyzed the status of participants, the software they preferred, the features of such software, and the trends in their information management needs.

Results: The analysis showed that no single software package is superior to all others as each application has its pros and cons. A variety of products is necessary to satisfy the requirements of our health sciences library users. Library professionals also have a role in providing suggestions to software vendors regarding desirable features and user requirements for library applications.

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Google Scholar versus PubMed: A Comparative Study of Search Results

Mary Shultz, AHIP, Assistant Health Sciences Librarian, Library of the Health Sciences-Urbana, University of Illinois-Chicago, Urbana, IL.

Objective: Google has expanded its realm from general Web searching into the arena of scholarly literature. As researchers and students turn to this familiar service for more of their searching needs, it is possible that they may select Google Scholar over PubMed for biomedical literature. This study compares searching Google Scholar with PubMed and identifies strengths and weaknesses of each system.

Methods: Twenty searches will be executed in PubMed and Google Scholar using parallel search strategies. Results will be compared in terms of quantity of citations, common citations, and unique citations. A further comparison of special features in each system such as controlled vocabulary options, advanced search options, and limiting options will be completed.

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Transformation of Evidence-based Medicine Search Filters: Enhanced Tools for Librarian Searchers for the Family Physicians Inquiries Network (FPIN)

Susan E. Meadows, librarian III and adjunct assistant professor, Family and Community Medicine, University of Missouri–Columbia; **Karen Knight**, education services coordinator, Claude Moore Health Sciences Library, University of Virginia–

Charlottesville; **Joan Nashelsky**, contractor, Iowa City, IA, **Sarah Safranek**, information management librarian, and **Leilani St. Anna, AHIP**, information management librarian, Health Sciences Library, University of Washington–Seattle; **Deborah Ward, AHIP**, director, J. Otto Lottes Health Sciences Library, University of Missouri–Columbia; and **FPIN Library Team (Family Physicians Inquiries Network)**, Family Physicians Inquiries Network, Columbia, MO

Objective: This poster will describe the enhancements to existing filters and the creation of new filters and guidelines for use by members of the Family Physicians Inquiries Network (FPIN) librarian community.

Methods: FPIN librarians collaborate as coauthors for the Clinical Inquiries and, as such, are responsible for the search methodology used for identifying relevant evidence-based results. One of the librarian team's goals is to create a systematic approach to literature searching that achieves a standard of uniformity in retrieval and quality of content. The FPIN search strategies are filters designed for evidence-based retrieval of topics related to therapy, diagnosis, and prognosis and have been customized for use by searchers on the PubMed and Ovid search systems. The filters are based primarily on the work of McKibbin and Haynes as well as other sources. During the past year, the original filters for therapy and diagnosis have been greatly revised, and the team has created new diagnostic testing and prognosis filters. The team has also created in-depth search guidelines that they hope will be particularly helpful to new FPIN librarians as they work through their initial searches. The redesigned and new search filters, posted in September, 2005, are publicly available at the FPIN Website.

Results/Outcome: The outcome of this work provides librarians with evidence-based search filters and search guidelines designed to enhance the creation of uniform search strategies and to facilitate the systematic search process required for all Clinical Inquiries searches.

Evaluation Method: Members of the FPIN librarian team have evaluated and provided feedback, based on their evidence-based search expertise, throughout the filter development process. Evaluation will be ongoing due to the inherent need for updates and improvements to search filters in general. Training and use of these filters, via the FPIN Website, group instruction sessions, or individual mentoring will be key to ensuring both the utilization of these filters and the adherence to the FPIN standard for systematic evidence-based searches.

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Transformation in Open Access Publishing at Two Universities

Virginia M. Carden, AHIP, administrative research librarian, Medical Center Library, Duke University, Durham, NC; **K. T. Vaughan**, librarian, Bioinformatics and Pharmacy; **Stefanie Warlick**, graduate assistant; and **Carol G. Jenkins, AHIP, FMLA**, director; Health Sciences Library, University of North Carolina–Chapel Hill; and **Patricia L. Thibodeau, AHIP**, associate dean, Library Services and Archives, Medical Center Library, Duke University, Durham, NC

Objective: Two academic health sciences libraries studied the publishing patterns of their authors in relation to free full-text journals, both true open access publications and those that embargo titles for a limited number of months. The study

addressed several questions; how many open access articles were published and what similarities and differences existed between the two institutions, one public and one private.

Methods: Duke University Medical Center Library and the Health Sciences Library at the University of North Carolina-Chapel Hill collaborated on a project to identify publications by institutional authors. Using standardized search strategies, articles in open access journals were identified by each school. The results will compare the differences and similarities between these two schools' open access publishing patterns, analyzing the publications chosen and departments represented as well as the number of articles published. A comparison of the authors' open access publishing choices to other publishing will be examined; and an analysis will look at trends in "born free" or immediate open access titles as well as embargoed journals.

Conclusion: The study was successful in generating a list of institutional citations and comparing the open access titles. The data for the journals with the highest number of articles were compared. While publication rates between the two institutions were similar, only five of the top ten journals (based on number of articles) were common to the two schools. Each school had five unique titles in its top ten. When looking at departments, there were more similarities; medicine represented a majority of the publications, but basic sciences departments chose open access journals. The study did underscore the difficulty of identifying which journals were truly "born free" journals at the time of publication, versus those that became open access after an embargo period. Follow-up studies are needed on the authors' awareness of and reasons for choosing open access journals over others in their fields.

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Evaluate the Evidence: An Innovative Method for Web Page Evaluation

Elizabeth M. La Rue, AHIP, student, School of Information Sciences, University of Pittsburgh, Pittsburgh, PA

Objective: The purpose of this poster is to present the process of developing and then validating an instrument for the evaluation of Web pages.

Background: As more users rely on Web-based health information, there is a growing need to identify reliable information sources. Currently, there are a few evaluation approaches, but they require paper-based materials for note taking or utilize a subjective ranking system. In each case, these approaches require an extended period of time to assess the Web pages and do not provide a validated measure of accuracy or quality.

Methods: Site Publisher Audience Text (SPAT) has been developed to provide an assessment instrument that will establish the validity and quality of a health-related Web page. Initial evaluations of SPAT have been conducted through student focus groups and user task analysis. To complete the research a pre- and posttest design will be carried out with certified diabetes educators.

Results: Preliminary results find SPAT to be memorable, functional, and reliably usable for all ages.

Discussion: SPAT does not require note-taking materials and does not have a ranking system for validity and quality. The SPAT instrument guides the user through a systematic process of Web

page assessment. If the user does what the acronym reminds them to do, they will have performed an inclusive assessment on the quality and validity of the Web page.

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Osteopathic Nomenclature in PubMed: An Analysis

Rebecca A. Chapman, outreach/education librarian, and **Faith Ross, AHIP**, university librarian, Midwestern University Library, Midwestern University, Downers Grove, IL

Objective: To identify effective search strategies using the *Glossary of Osteopathic Terminology* terms for finding osteopathic literature in PubMed.

Methods: In this investigation, ten random terms were selected from the *Glossary of Osteopathic Terminology* (GOT) in the *American Osteopathic Association's Yearbook and Directory of Osteopathic Physicians*. Each GOT term was searched for Medical Subject Headings (MeSH) counterparts. Then each GOT term was searched in PubMed. The resulting citations from the PubMed search were each reviewed to identify both overlapping and unique substantive MeSH terms. The citations were also compared to identify common journal titles.

Results: None of the GOT terms mapped to a MeSH counterpart. Two terms had 75% or more citations with a common MeSH term, while two terms had a match of 25% or less. Seven different terms were cited in *Journal of Manipulative and Physiological Therapeutics*, while 6 and 4 different terms were cited in the *Journal of the American Osteopathic Association* and the *Journal of Orthopaedic and Sports Physical Therapy*, respectively.

Conclusions: Based on the study results, use of GOT terminology produced the most effective and thorough article retrieval, while MeSH terms were supplemental. Further testing with a larger sample of GOT terms would be essential before a general conclusion could be drawn for both the GOT searching and common journal titles.

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Citation Analysis: Transforming How Institutions View Their Publications

Patricia L. Thibodeau, AHIP, associate dean, Library Services and Archives, and **Virginia R. M. Carden, AHIP**, administrative research librarian, Medical Center Library, Duke University, Durham, NC

Objective: Academic health centers are trying to find objective measures for evaluating the success of their faculty. One such measure is the publication patterns of their authors and departments as well as of the overall medical center. Emerging citation tools are allowing administrators, faculty, and librarians to analyze institutional publications.

Methods: Duke University Medical Center Library has been experimenting with ways to use these tools to provide information to administrators, chairs, and faculty members. New citation analysis tools in two major commercial databases will be used to explore how librarians and end users can analyze citations. Searches will be performed in Web of Science and Scopus using search strategies developed at Duke for identifying institutional authors. The overall coverage and citation results will be compared. The difference between the citation rates will also be reviewed and analyzed. The tools embedded into the databases for further citation analysis will be applied to selected

author citations. Reports will be generated demonstrating the features of the database and specific citation tools, and the results will be compared.

Results: Each citation analysis tool presents certain strengths and weaknesses. The search results vary between the databases due to differences in coverage. Therefore, citation rates for a given article may differ between the two databases, and a comparison of the lists of articles citing the work may include unique publications as well as duplicates. The level of analysis by author, publication, year, and other factors will also vary depending on the design and capabilities of the tool and the stage of its development. While reports and capabilities may not be the same, the data generated may be useful to faculty and administrators.

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The Health Sciences Library as Partner in Case-based Learning Exercises

Sarah K. McCord, electronic resources and reference librarian, and **Vicki F. Croft, AHIP**, head librarian, Health Sciences Library, Washington State University–Pullman

Objective: Determine which method of instruction is most effective in teaching veterinary students how to search the literature for information relevant to a specific clinical situation.

Setting: The “Diagnostic Challenges” (DCs) are case-based learning activities that take place twice during the second year of the veterinary medical program. During each week-long DC, most regular lecture and lab sessions are cancelled, and students are put into teams and given a case. At the end of the week, teams present synopses of their cases and their clinical reasoning. A literature search is a required part of every DC assignment.

Methods: A variety of strategies have been employed to help students understand both why a literature search is important as well as how to complete one. Strategies have been evaluated through student attendance, efficient use of student and librarian time, and veterinary faculty evaluation of the quality of sources cited during the end-of-case presentation.

Results: Teaching during the reference interview, a DC Literature search Web page, an optional drop-in library instruction class, and “searching from SOAPs” were all explored as possible instructional methods. The “searching from SOAPs” method begins with a practicing veterinarian outlining the subjective, objective, assessment, plan (SOAP) technique for analyzing clinical situations. The librarian builds on the SOAP format, relating it to the ideas of controlled vocabularies and Boolean logic, to show how to use the progress notes for the animal to build effective search strategies. A team who delegated the literature search to a student who did not attend the “searching from SOAPs” session provided an unexpected control group for the “searching from SOAPs” approach.

Conclusion: “Searching from SOAPs” shows improved outcomes in faculty evaluation of student performance on searching and use of literature in clinical case situations.

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A Content Analysis of Questions Generated by Public Health Practitioners

Richard D. Carr, AHIP, coordinator, Reference and User Support Services, and **Jonathan D. Eldredge, AHIP**, associate professor, Health Sciences Library and Informatics Center, The

University of New Mexico–Albuquerque

Objective: To better anticipate and assist public health professionals with their information needs, we classified public health professionals’ naturally occurring questions during a six-week study period according to an (1) evidence-based public health (EBPH) question typology and (2) the University of Massachusetts Soutter Library’s public health subject typology.

Method: Content analysis: The investigators queried participants in the study about their questions three times per week for six weeks with a brief emailed survey. All questions generated by participants were coded on a data sheet by the question itself with tracings to individual participants’ names. Upon completion of a quality assurance check, the investigators removed the individual names. All questions were categorized and frequencies determined according to the following EBPH question types: (1) statistics, (2) determinants, (3) behavioral patterns, and (4) intervention. In addition, all questions also were categorized and frequencies determined by a general public health subject classification system developed by the Soutter Library. This study involved public health professional-level employees from the Departments of Health located in five regions of a predominantly rural state. These professionals’ occupations include: health educators, social workers, nurses, physicians, epidemiologists, physician assistants, nutritionists, and program managers.

Results: Preliminary results show the leading question categories based on the Soutter Classification to be “communicable diseases,” “health services administration,” and “vital statistics and surveillance.” The subject category of “communicable diseases” includes topics such as disease outbreaks, immunization and vaccine safety, and diseases spread by water or food. The Soutter category of “health services administration” includes health policy and planning, as well as health economics and financing. The Soutter category of “vital statistics and surveillance” includes data collection and disease reporting. The leading EPBH question type was “statistics,” defined as how often a disease or condition exists in a specified population. This type of EBPH question usually includes descriptive statistics that gauge the frequency of conditions and ways these rates of frequency compare with other populations. It also includes questions related to surveillance and sentinel events.

Conclusions: The authors will report their research findings at MLA ‘06.

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Use of a Point-of-care Personal Digital Assistant (PDA) Databases Comparison to Develop a Product Evaluation Workflow

Sarah M. Safranek, information management librarian; **Leilani A. St Anna, AHIP**, information management librarian; **Joanne Rich**, information management librarian; and **Nanette Welton**, head, Information Resources; Health Sciences Libraries, University of Washington–Seattle

Objective: This poster describes a study that addresses comparison of personal digital assistant (PDA) databases used by health care providers in clinical settings to answer patient-related questions and development of a library product-selection workflow for evaluating clinical tools.

Methods: Five products are evaluated: InfoRetriever, MobileMicromedex, PEPID, Epocrates, and Lexi-Comp. All products contain resources formatted for quick reference;

include drug, disease, and therapy information; and have both PDA and Web interfaces. Cost, individual product requirements, and vendor requirements for administration of licenses were documented. Primary care physicians, residents, practicing nurses, and physician assistants as well as medical students were asked to participate in the evaluation. A set of clinical questions developed for a study on bedside information tools, was adapted for “real-life applicability” with the help of a practicing physician. Each participant answered the predetermined clinical questions using each product and was surveyed about the quality of information found and usability of the interface and product. Selected participants were interviewed. The library’s resources director handled interactions with vendors, trials set up, and contract negotiations. The librarian clinical team, composed of clinical department liaisons, worked directly with target audiences to identify products, complete preliminary product comparisons, recruit participants, and conduct the study.

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Statistically Speaking, Reference Service On and Off the Desk

Angie Chapple-Sokol, health sciences librarian; **Nancy Bianchi**, health sciences librarian; **Frances Delwiche**, health sciences librarian; **Jeanene Light**, health sciences librarian; **Shiela Phillippe**, health sciences librarian; **Donna O’Malley**, library associate; and **Susan Bishop**, administrative assistant; Dana Medical Library, University of Vermont–Burlington

Objective: To develop a new statistics-gathering method that will accurately reflect the total number and varied type of reference work performed by librarians from all locations, not just the reference desk, and will provide immediate and up-to-date reference statistics to library administration.

Methods: Historically, reference work has been conducted from within a library by librarians stationed at a traditional reference desk. In the past decade, many library resources have evolved to an electronic format resulting in fewer patron visits. However, patrons still have plenty of unanswered questions. Librarians have responded to this environmental change by creating outreach and liaison programs to reach patrons in contemporary ways and have developed an information commons approach to answering questions in the library. Librarians have adapted by creating such programs and have additionally restructured the way we gather statistics and broadened the process to include reference questions asked and answered in the many locations and circumstances in which we interact with patrons. New statistical tools and data points combine to reflect the ongoing changes in our data collection operations in reference service.

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Transforming Open Access from the Top Down: How Are Funder-mandated Open Access Programs Working?

Pamela C. Sieving, informationist, NIH Library, National Institutes of Health Library, Bethesda, MD

Objectives: To determine the impact of funder-mandated programs, such as the National Institutes of Health Public Access manuscript policy and that of the Wellcome Trust, to increase access to biomedical research results.

Methods: Funder-mandated programs established prior to November 1, 2005, allowing or requiring that research results

be deposited in an archive, embargoed for a maximum of 12 months and made publicly accessible, were identified, and details of the programs determined and compared. Characteristics of compliance were determined, and possible impacts of the programs’ requirements on grant applications explored. Finally, the impacts of these programs on access to research results were determined by examining whether the availability of manuscripts through PubMed Central and other repositories was significantly different than access to the same papers through preexisting free access programs.

Results: Analysis of the policy of the National Institutes of Health (NIH) shows that approximately 4% of eligible publications have been made publicly accessible in the PubMed Central (PMC) archive. Few papers funded by the Wellcome Trust have been added to PMC; the Trust is soliciting proposals to establish its own archive for publications and datasets. The Research Councils of the United Kingdom require deposit in an open access repository when feasible. The Max Planck Society and Deutsche Forschungsgemeinschaft encourage open access publication without yet requiring it.

Conclusions: Funder-mandated programs have increased debate among funders, researchers, librarians, the public, and government officials. Several publishers have modified their positions on access to current and archived papers. Many researchers remain uninformed on issues of copyright and access, leaving opportunities for librarians to be involved in educational outreach and lead explorations of institutional repositories and other new forms of scholarly communication.

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Geographic Information Systems (GIS) for Allocation of Health Resources in Developing Countries

Michelle M. Foss, head, Interlibrary Loan, George A. Smathers Libraries; **Lenny Rhine**, emeritus university librarian, Health Science Center Libraries; and **Joe Aufmuth**, GIS/Government Documents, George A. Smathers Libraries; University of Florida–Gainesville

Objective: To investigate the application of geographic information systems (GIS) for the allocation of health resources in developing countries. This study will report on the use of GIS to detect, track, and analyze disease trends and ways this information has been utilized to allocate finite resources.

Methods: The research will review current health-related databases to identify applications of GIS in developing country regions. These research tools will include PubMed, Current Contents, and GIS databases. The study will use the World Bank definitions of developing countries or those that have an average per-person gross national product (GNP) below \$1,000 per annum and \$1,000–3,000 per annum. The research will include analysis of GIS applications by broad health-related categories and in the two World Bank specifications.

Results: The results of the research will be tabulated by subject categories and country GNP levels. This data will be displayed in narrative and chart form. The results will note the extent of the application of GIS and the usage trends in developing countries.

Conclusions: After the research is completed and analyzed, the authors will make suggestions on the future application of GIS in the developing country environment, as a tool for analysis of disease trends and allocation of resources.

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Toward Evidence-based Nursing: The Nurse Intern Library Training Project

Pamella Asquith, librarian, Education Department, Dixie Regional Medical Center, Intermountain Health Care, St George, UT

Objective: To highlight “The Information Resource Training for Nurse Interns Project,” which was funded by the National Network of Libraries of medicine (NN/LM) MidContinental Region as part of the “Demonstrating the Value of the Hospital Library” initiative in 2004.

Problem: Newly graduated and hired nurse interns were not aware of how to use online library resources effectively.

Method: A project was developed to train nurse interns in effective information-seeking behaviors and thus utilize the evidence-based resources available to them through the medical library. First, they were given a pretest to assess needs and abilities as online searchers. Then, they received a four-hour presentation including a PowerPoint, followup exercises, and handouts. After about three months, interns were surveyed about their use of the online resources on the job (the results are being calculated at this time).

Extension of Original Concept: This presentation module of this project was also given to all nurse managers who then invited the librarian to repeat it at department meetings. An abbreviated presentation is given to all nursing and allied health students who do clinical rotations at the hospital. The students have said that they use the hospital library more than their college library for information they need for their studies.

Results: The nurse interns were asked the following questions:

1. Did you think the library database training you received at the time of your orientation was useful and informative?
2. Did your comfort and skill level improve as a result of the training?
3. Have you ever experienced problems logging into the library databases (not to other sites in the intranet)?
4. What is your present comfort level using library databases?
5. How frequently have you used the library databases since starting to work?
6. Which databases have you used?
7. What sort of information have you needed to access?
8. Have you assisted others in using the databases?
9. Do you have suggestions for future training?
10. Do you any suggestions for other library resources or services?

The results will be tallied in early January 2006.

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“How Do I Find...?” Usability of the Health Sciences Center Library’s Website: Implications for Redesign

Donghua Tao, reference librarian, and **Patrick McCarthy**, associate university librarian, Health Sciences Center Library, Saint Louis University, St. Louis, MO; **Grethen Dalzell**, weekend manager, Circulation Desk, Olin Library, Washington University, St. Louis, MO; and **Sandra Borak**, library assistant, and **Susan Fowler**, staff, Reference Desk, Health Sciences Center Library, Saint Louis University, St. Louis, MO

Objective: To test if a redesigned library Website is intuitive and easy to use among different levels of users. To modify the Website structure, navigation, and layout based on user response.

To share the Website redesign experience with other health sciences libraries.

Methods: This study uses cognitive walk-through usability testing techniques. New students enrolled for the 2005 fall semester in schools of allied health, medicine, nursing, and public health were the study population. Three or four participants were randomly selected from each degree program. Participants finished fifteen searching tasks by using the Website and completed pre- and posttest questionnaires. Screen activities, total time used, and number of clicks to finish each task were recorded with an open source application called CamStudio. Participants were asked to think aloud and write down their thought process for each task. In-depth interviews were conducted when participants could not finish a task. ANOVA and content analysis will be used for data analysis.

Preliminary Results: Thus far, 6 subjects (out of a total of 20) have participated in the study. Among a total of 90 tasks, 88.9% have been given correct responses. In 82 tasks, participant’s thought processes were the same as the steps they took to finish the task. Overall task performance measured by the average time used to complete all 15 tasks was analyzed by means of a 2-way between-subject ANOVA with 3 levels of computer and Internet use experience and 3 levels of library use experience (advanced, moderate, basic). Neither computer and Internet experience nor library experience was found to be statistically significant.

Conclusion: Saint Louis University’s Health Sciences Center’s Library’s Website is easy to use and intuitive enough for first-year students in the schools of allied health, medicine, nursing, and public health. Additional improvements can be made to guide users to more complete access to relevant electronic resources and services through the library’s Website.

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Proxies, Ties, and Health Information-Seeking Realities: Survey Results of an African American Community

Ophelia T. Morey, librarian, Health Sciences Library, University at Buffalo, Buffalo, NY

Objective: The purpose of this research poster is to present preliminary findings for a telephone survey. The goal of the survey was to explore consumer health information (CHI)-seeking behavior using Granovetter’s (1973, 1983) strength of weak ties theory as the conceptual framework.

Methods: Cross-sectional, telephone survey of African Americans, male and female, ages 18–74 who reside on the near east side of Buffalo, New York. Interviewers asked 216 respondents questions to determine where individuals go to seek CHI and to explore the closeness of tie relationships if the respondent sought CHI from an individual and/or if the information seeking was for someone else (proxy searching) (Fisher et al., 2005).

Preliminary Results:

- Overall, 45.3% of respondents sought health information from a health service professional, 14.5% from a Website, and 9.8% from another source.
- Respondents who looked for health information in the past 6 months (42.4%) sought the information from a health service professional (weak tie) and most (52.8%) identified their relationship with this person as being “somewhat close” (significant tie) (Horrigan et al., 2006).

- Family members (strong tie) living with (2.4%) and not living with (8.8%) were the second choice for seeking health information for those who had looked for health information in the past 6 months. They are identified as “very close” (core tie) (Horrigan et al., 2006).
- Respondents who looked for health information in the past 6 months were more likely to have sought the information for themselves (76.6%), although 22.2% sought health information on behalf of another person (child, parent, another relative or non-relative).

207**Throw Away the Clicker, Banish the Hash Marks! How Good Is Your Reference Services Evidence?**

Elizabeth D’Antonio-Gan, head, Reference Services, and **Paul Blomquist**, mediated search coordinator, Denison Memorial Library, University of Colorado and Health Sciences Center—Denver

Objective: To demonstrate an enhanced user friendly Web interface for collecting qualitative and quantitative Reference Services usage statistics, increasing ease of data analysis and management with MS Access database software and using the data as evidence in demonstrating value, impacting funding streams, and improving library efficiencies.

Methods: Dissatisfied with the quality of customer usage statistics employed in critical decision making, reference services department librarians explored methods for streamlining data collection. Concurrent to this dissatisfaction was the spiraling downturn in the economy nationwide and locally. This downturn led to significant budgetary and staffing reductions in successive years necessitating enterprise decisions toward workflow efficiencies and increasing non-state funding streams. In mid 2002, the department implemented an online Web input form tied to eighteen MS Access database fields. The fields logged customer demographic information, daily patterns of usage, and duration and nature of the reference question including the type of resource, electronic or print and whether the question was information technology (IT)-related. Data were analyzed monthly, semi-annually and annually and are being used to guide staffing and resource deployment decisions

Results: Staff serving on the reference desk have now been logging data for over three years. Enthusiasm for entering data waxes and wanes. However, analysis of the data provided a consistent pattern of reference services usage by patrons from year to year even though the quantitative data analysis cannot be definitive. The data have been used to support a proposal for increased funding from constituents and to modify reference services. This methodology so impressed other customer service-oriented departments in the library that additional MS Access

data gathering tools were custom-designed for those departments. The databases continue to be enhanced with the addition of pivot tables and charts that turn control of the data and its analysis into the hands of each individual department head.

209**Direct-to-Consumer Advertising of Psychiatric Drugs in Popular Magazines: How Are Mental Disorders Portrayed?**

Rebecca A. Abromitis, reference librarian, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

Objective: Direct-to-consumer (DTC) advertising of prescription medication as a form of patient education information is a controversial topic. This poster endeavors to raise awareness among medical librarians about this debate. The study examines visual portrayals of patients with mental disorders in DTC magazine advertisements and compares the observable demographics in ads with expected prevalence in the general population.

Methods: A hand search of popular magazines published in 2005 was conducted to obtain DTC psychiatric drug ads that contain (1) photographic depictions of patients and (2) detailed patient education information about the drug on an adjoining page. A sample of eleven popular magazines was selected from among sixty that ranked highest in total advertising and circulation revenue for the year 2004. Represented categories include women’s and men’s interests, business, health, home, lifestyle, general, and newsweeklies. Psychiatric drug ads were grouped according to patient portrayal and observable demographics and compared with expected prevalence in the general population. This poster considers the positive and negative aspects of DTC advertising and possible interpretations that consumers might derive from ad imagery and its underlying allusion, including the promise of the product, understanding of the disorder, stigma, and stereotyping.

Results: In the resulting sample of 132 DTC psychiatric drug ads that met inclusion criteria, 20 non-duplicate ads for 7 drugs were identified in which: only white and African American races were portrayed; white women exclusively represented antidepressants; boys were overrepresented (5:1) in ads for treatment of attention deficit hyperactivity disorder (ADHD); adults were not represented in ads for treatment of ADHD; and more women than men suffer from Alzheimer’s disease or insomnia.

Conclusion: One possible rationale for advertisers’ depictions of patients may be to target the population with highest risk for a particular mental disorder. Portrayals based on such a premise do not provide balanced information for consumers and could lead to or reinforce stereotypes (e.g., certain mental disorders afflict only males, females, or whites) or provide false expectations about the drug’s efficacy (e.g., most patients in ads display positive affect).

Poster Presentation: Even Numbers/Monday, May 22**2****Transforming Scholarly Communication: DigitalCommons@ the Texas Medical Center, a Multi-institutional Repository in the Making**

Leah Krevit, associate director, Collections Management, and **Elizabeth K. Eaton**, executive director, Administration, HAM-TMC Library, Houston Academy of Medicine-Texas Medical Center, Houston, TX

Purpose: This electronic poster will examine some of the rationale, objectives and methodologies required to create an institutional repository in a complex environment. It will outline the issues involved in providing open access collections, the usability experience of faculty and others as they interact with the system and self-archive their work and the nature of the workflow.

Brief Description: This project serves as a “proof of concept” establishing an electronic system, ProQuest’s Digital Commons, to capture and make openly and widely accessible scholarly publications from faculty, researchers, and clinicians. UTHSON is the library’s first repository participant, providing digital materials via its extensive collection of scholarly publications, learning objects, and research data. The Library provides the publishing platform, archiving expertise, administration, guidance in establishing new digital communities, and user support.

Results/Outcome: Institutional repositories benefit: the academic institution by managing and showcasing the institution’s intellectual assets and making them searchable and available in one central location; the authors by allowing wide and rapid content dissemination; the research community by speeding innovation due to the free flow of information they provide; and the library by helping it become a leader in the transformation of scholarly communication.

Evaluation Method: Statistical information available includes numbers of individual items deposited by faculty and researchers, downloads of specific items on a monthly basis, and aggregated usage over the life of the repository. User interaction and satisfaction is being documented via surveys. Once the faculty submission workflow has been documented, the repository will be opened to all of the institutions in the Texas Medical Center.

4**Timeline for Transformation: Moving from a Print-based Library to a Virtual Library**

Sharon Easterby-Gannett, AHIP, medical librarian, Christiana Hospital Library; **Christine Chastain-Warheit**, AHIP, director, Libraries, Medical Library; **Ellen Justice**, medical librarian, Christiana Hospital Library; and **Diane Wolf**, AHIP, associate director, Wilmington Hospital Library; Christiana Care Health System, Newark, DE

Objective/Purpose: This poster will outline the evolution of a print-based hospital library to one offering numerous electronic resources. Potential additions to enhance the virtual library offerings will also be included. This is the story of the evolution of the Christiana Care Medical Libraries.

Setting/Participants/Resources: Christiana Care Health System (CCHS) medical libraries consist of four distinct libraries in four different settings. In 1997, the medical libraries began to develop a presence on the health system’s intranet.

Brief Description: The medical libraries were responsible for the institution obtaining a class B license 1988. In 1997, the libraries’ home page was developed and the journal holdings list was posted to the organization’s intranet. The number of online resources were limited, and the only online full text journals were the OVID core collection. There were no full-text books. Today, the medical libraries have several electronic databases, over 25 Web pages, 400 full-text online journals, and 200+ online books. Outcome: This ongoing project has attracted much interest in the health system. The library now employs a systems librarian. In addition to this librarian, two librarians on staff also manipulate Web pages. New features are being added, and the site is constantly updated.

Evaluation Method: In 1998/99, we evaluated and added several new electronic databases and expanded on our library intranet Website so that all of our customers on the Christiana Care network/system, regardless of geographic location, can readily access key library products. Anecdotally, we have received favorable comments from residents, nurses, and administrators concerning our use of technology. We are constantly reviewing our site and making improvements as well as getting feedback via our electronic suggestion box

6**Virtual Medical Library: A Start-up Experience**

Doris Wisher, AHIP, director, Library, Jay Sexter Library, Touro University-Nevada, Henderson, NV

Objective: The medical library is a necessary and integral part of a student’s medical education. Most established academic medical libraries across North America employ some electronic resources to supplement their massive book collections, which evolve over years and cost millions of dollars to purchase and store. What if the medical librarian only had seven weeks and a limited budget to open a library?

Methods: Touro University seized a rare opportunity to innovate by starting a virtual medical library from scratch. The library employs 43 databases making accessible 70 medical textbooks and 140 allied health books electronically in full text plus 6,900 full-text electronic journals. National virtual medical libraries already enjoy success in Germany, Finland, Scotland, and England. This poster addresses two start-up issues: selection of electronic resources and enhancement of e-resource user services. The medical librarian scoured the Internet and subscribed to full-text book and journal products such as EBSCO, Proquest, Stat!Ref plus purchased pertinent CDs and DVDs. E-resources were enhanced by making them readily available to students and faculty, giving “hands on” training in their use, and distributing an annotated list describing each electronic resource.

Results: Touro University-Nevada library’s uniqueness stems not from being one of a handful of academic virtual medical libraries, but from the fact that Touro’s virtual library works. With no time and physical space constraints, students demonstrate their high comfort level in this virtual environment 24/7, each day of the year. Students did not need to be won over to the virtual library, many came with a laptop tucked under one arm. Faculty skepticism evaporated during library e-resource orientation. An accreditation team observed the virtual library and now highly recommends it. The future of the virtual medical library is prosperous with ever-expanding electronic resources to benefit students.

8

Transforming the *Index to Chiropractic Literature* from a Paper Index to a Freely Available Web-based Index

Phyllis J. Harvey, collection management librarian, David D. Palmer Health Sciences Library, Palmer College of Chiropractic, Davenport, IA, and **Annette Osenga**, director, Learning Resources Center, Life Chiropractic College-West, Hayward, CA

Objective: To summarize twenty-five years of progress and evolution in developing the specialized research tool, *Index to Chiropractic Literature (ICL)*, with emphasis on transforming the database to its latest version. To inform the health care community of a newly updated research tool for locating information on chiropractic health care.

Methods: Complementary and alternative medicine (CAM) has steadily grown in the last fifteen years. Chiropractic is among the most utilized of these therapies. It is essential for health care consumers and providers to find reliable information on chiropractic. Since 1980, the Chiropractic Library Consortium has fulfilled that need by producing ICL, first on paper, then paper and disk, and, in 2001, on the Internet (www.chiroindex.org). In 2003, work began to convert the database from Microsoft Access to MySQL. An additional conversion of the Website from hypertext markup language (HTML) to PHP along with enhancements of searching and editing features resulted in a new product. An initial test version of the new database was launched in March 2005. The poster will outline: history and evolution; interface design issues in a small, specialized database; and promotion and plans for the next upgrade.

10

Integrating and Promoting Medical Podcasts into the Library Collection

Michelle Kraft, AHIP, medical librarian, Medical Library, South Pointe Hospital, Warrensville Heights, OH

Objective: This poster describes how podcasts offer a way for medical professionals to listen to current information in medicine from an iPod, MP3 player, handheld device, or computer and how these podcasts can be evaluated and integrated into the library electronic resources collection and promoted to library users.

Methods: Identify and evaluate available medical podcasts according to the library's electronic resources collection development policy. The podcasts will be specifically evaluated on authorship, sponsorship, content, collection relevance, and audience. Selected podcasts will be cataloged using Medical Subject Headings (MeSH) and according to the National Library of Medicine (NLM) classification system. The library will explore creating an intranet library Web page highlighting the selected medical podcasts with information on how to listen to the audio files. Finally, the library will publish a small feature article in the hospital physician newsletter directing users interested in the podcasts to the catalog and intranet page

Results: Podcasting is still in its infancy. The current state of aggregators and search engines makes it difficult to efficiently and effectively search for medical podcasts. Aggregators are more suited for the demands of music sharing rather than podcasts, providing broad subjects for browsing and limited program information. Unless the title or producer of the podcast is known, users must scroll through the large program list. Information in the lists is provided by the producers and is not standardized, resulting in inconsistent and erratic information. Currently, the

best method to organize and feature medical podcasts is on the library's Web page. Podcasts are similar to serials; therefore adding them to the online catalog would reflect the existence of the publication or podcast but not information on each unique program. However, quality medical podcast programs are available, and they would make excellent resources in a library collection. Interest among patrons exists and is growing.

12

HealthyMe@UMB: Promoting Consumer Health Resources to University Staff

M.J. Tooley, AHIP, executive director, and **Stephanie N. Dennis**, NLM associate fellow, Health Sciences and Human Services Library, University of Maryland–Baltimore; **Marian G. Taliaferro**, manager, Reference Center and Mary H. Littlemeyer Archives, Association of American Medical Colleges, Washington, DC; and **Alexa Mayo, AHIP**, associate director, Services; **Wilma A. Bass**, head, Digital Resources and Monographs Management; **Chris Hansen**, reference desk assistant; and **Ann Yeager**, course reserve technician; Health Sciences and Human Services Library, University of Maryland–Baltimore

Description: The HealthyMe project promotes consumer health information, library services, and campus resources to encourage health and wellness. The target population is staff on campus that may not typically use the library. This project involves four major activities. (1) Forming Partnerships: The genesis of the project began with an idea of promoting the library as a health benefit to employees of the university. Through discussions with the university's human resources administration, the project evolved into a library-run Web portal with general wellness information and links to campus health resources. (2) Creating the Site: A library committee worked on the overall plans for the site and solicited feedback from a variety of campus groups such as the athletic center, counseling center and drug information center. An in-house Web design team developed an eye-catching and user-friendly site. (3) Marketing: An aggressive marketing plan included working with human resources, an initial supporter of the project. (4) Evaluating and Maintaining HealthyMe: The library continues to develop the site while monitoring feedback and usage.

Results: The HealthyMe Website is one tool for promoting library services as a health-related benefit to staff. The university's human resources administration includes a description of HealthyMe in the bimonthly new employee orientations. The successful launch of the site, which we coordinated with our celebrations for National Medical Librarians Month, helped raise the profile of the library on campus. Initial use statistics are promising and will be monitored on a regular basis. We are continuing to enhance and promote the Website while looking for new ways to make the site relevant to the health of employees and staff.

14

All Health Is Local: Presenting Go Local Massachusetts

Sally A. Gore, project director, Go Local Massachusetts, Lamar Soutter Library, University of Massachusetts Medical School–Worcester; **Brenda L. Collins**, librarian, Wilkens Library, Cape Cod Community College, West Barnstable, MA; and **Len Levin, AHIP**, manager, Educational Programs, Lamar Soutter Library, the

University of Massachusetts Medical School–Worcester

Objective: To increase public awareness and use of Go Local Massachusetts, a Web-based resource linking users to information on area health care providers and agencies as well as health topics in MedlinePlus.

Methods: While Go Local Massachusetts is not the first instance of this project sponsored by the National Library of Medicine (NLM) made available to the public, it is the first to create a media tool to market and promote the resource's use to libraries and the public across the state. The project librarian in conjunction with a Go Local Massachusetts Advisory Board member worked with a community college media department, local semi-professional actors and a public library to produce audiovisual scenarios demonstrating the use of Go Local Massachusetts as well as MedlinePlus. The short program debuted at the official Go Local Massachusetts launch in November 2005 and is being distributed statewide to libraries, health agencies and public access cable channels, as well as edited into public service announcements for commercial television.

Results: The "All Health Is Local" DVD project demonstrated the practical and economic feasibility of producing promotional and instructional materials at the local level for local dissemination. Scenarios are entertaining and informative and, to date, have been well received. Future projects could include streaming media or podcast distribution with similar satisfactory results.

16

Virtual Cases as a Tool to Promote the Incorporation of Evidence-based Medicine Techniques into Housestaff Training

Nila A. Sathé, associate director, Research; **Pauline Todd**, coordinator, Staff Development; **John Clark**, health systems analyst programmer, Eskin Biomedical Library; **William Gregg**, assistant professor, Departments of Biomedical Informatics and Medicine; and **Nunzia B. Giuse, AHIP, FMLA**, director and professor, Eskin Biomedical Library; Departments of Biomedical Informatics and Medicine; Vanderbilt University Medical Center, Nashville, TN

Purpose: To describe the development of evidence based medicine (EBM) training portal for clinicians and librarians. The portal includes virtual practice cases that illustrate the processes of clinical reasoning, recognizing an information need, locating and appraising evidence, and applying evidence to the patient case

Setting/Participants/Resources: Clinicians and information professionals at an academic health sciences center.

Brief Description: The virtual case training tool is one facet of an evidence-based knowledge portal created to disseminate elements of informationist training as part of an R01-funded evaluation of a clinical informationist program. The portal contains an EBM readiness assessment that allows users to gauge personal and organizational readiness to adopt EBM practices, an interactive EBM tutorial, and virtual practice cases. Virtual cases guide users through the patient/case context, key decision points in the clinical encounter, clinical reasoning processes, and processes of locating and appraising evidence to inform decision making. The tool also illustrates techniques for applying EBM principles in practice. To maximize use of the tool in the

medical center's educational efforts including formal classes, resident clinics, and just-in-time training, the tool was designed in a modular format to allow targeted integration of content in relevant library-created EBM and education resources.

Results/Outcome: The team has developed cases illustrating clinically focused applications of EBM principles including absolute and relative risk, number needed to treat, bias/confounding, cost effectiveness, and sensitivity and specificity of diagnostic tests. Cases use a clinical scenario (e.g., a medical director assessing the prevalence of depression among diabetics and appropriate management) to ground the application of an EBM technique such as assessing cost effectiveness. Users view an explanation of locating relevant evidence, reasoning involved in appraising the evidence, and applying the evidence in clinical care. Cases also contain practice questions to allow users to test their comprehension of the facets presented.

Evaluation Method: Preliminary testing of cases is ongoing with residents and medical students, and initial feedback has been positive. Further evaluation will entail targeted pre- and posttesting of individuals using the cases, feedback forms integrated into the portal, and tracking of repeat portal users' EBM readiness assessment scores.

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www.AZHealthInfo.org: Bridging the Grand Canyon of Local Health Information

Fred L. Heidenreich, AHIP, information services librarian, Information Services Department; **Patricia A. Auflick**, outreach services librarian, Outreach Services; **Sandra S. Kramer**, head, Information Services Department; **Susan J. Trombley**, collection services librarian, Collection Services Department; and **Stefan Walz**, support systems analyst, Systems and Networking Department; Arizona Health Sciences Library, University of Arizona–Tucson

Objective: To create a database of community and state health information resources that fills the gaps of information not covered by MedlinePlus or the Arizona Go Local directory of health services and to improve health outcomes in Arizona through improved access to vital health information.

Methods: The Arizona Health Sciences Library and other Arizona Turning Point Project participants collaboratively developed an online searchable public health Website. Events beyond our control resulted in the loss of 6,000 records, which became the impetus for shifting focus and redesigning with increased search capabilities and enhanced navigation. Learning from mistakes, we eliminated much but retained the most useful design elements. "Healthy People 2010," "Healthy Arizona 2010," and other public health indicators defined priorities and helped reduce content to forty "FocusedTopics" deemed to have the greatest potential for local impact. The ColdFusion-enabled database now emphasizes information as opposed to services. It has a unique purpose, composition, organization, search method, and functionality. Its components include topical summaries with statistics and demographic data, useful groupings of approved Web links, and "related-topics" listings with cross-references that interact with both MedlinePlus and Arizona GoLocal. Though grant funding has expired, the library continues to develop and maintain www.AZHealthInfo.org as part of its outreach mission.

Results: An ever-growing collection of key Arizona electronic resources provides easy access to locally relevant health topics.

As access to health information improves, so will the health and well-being of our citizens.

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Quick-and-easy Personalized Orientation Videos

Leilani A. St Anna, AHIP, information management librarian, and **Janet G. Schnall, AHIP**, information services librarian, Health Sciences Library, University of Washington–Seattle

Objective: Describe a method of producing orientation videos that uses short modules so videos can be easily updated and modified for different audiences.

Methods: The health sciences libraries are part of a large, academic center serving six health sciences schools, with users located in five states. Each year library liaisons orient their specific users to library resources and services. Librarians identified five areas to be covered in all orientations: remote access, checking out books, library Website, library facility, and contacting liaisons. Using Camtasia software, videos for each area and an introduction were recorded and then produced as a single product. The final video, which runs approximately eleven minutes, has a menu so viewers can watch the whole video or can choose a particular one-to-three-minute segment to watch or review. Librarians link the video from appropriate Web pages and advertise to target audiences. Initially produced for medical students librarians did not meet with in-person, tailored orientation videos have been made for nursing and social work students by simply recording a personalized introduction and liaison information and reusing core video segments. In addition, a general orientation video was produced to be used in conjunction with the Library's *Getting Started* handout.

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Electronic Journal Management and Access: Transformation from a Static Website to a Dynamic Link Resolver

Janice Rettino, assistant director, Administration and Special Projects, and **Elizabeth Sosnowska**, electronic resources librarian, UMDNJ University Libraries, University of Medicine and Dentistry of New Jersey–Newark, and **Yingting Zhang**, information and education librarian, UMDNJ Robert Wood Johnson Library of the Health Sciences, University of Medicine and Dentistry of New Jersey–New Brunswick

Objective: To illustrate the advantages and disadvantages of using an OpenURL link resolver to manage electronic resources in a university-wide library system.

Methods: The university libraries lacked a centralized management system for their 13,000 electronic journal subscriptions. Current practice included listing titles in static hypertext markup language (HTML) pages maintained separately by each campus library. Maintenance of the lists was tedious, duplicative, and often ineffective. The titles on the lists could not be searched, only browsed. Bundled titles that were licensed through aggregate databases were neither listed on the Websites nor available through the university libraries' catalog. Implementing an OpenURL link resolver to manage our electronic resources would allow us to centrally manage our electronic resources and provide our users with access to 100% of our electronic resources regardless of the provider and access point.

Results: With an OpenURL link resolver, our Findit@UMDNJ

service enables seamless linking across e-resources regardless of their origin. It improves information retrieval by offering links to other service options when full text is unavailable. It leverages the library's e-resources subscriptions by improving their visibility and usage. It also allows for effective management of our e-resources. There are, however, several challenges facing both users and library staff. For users, they need to navigate in a completely new environment. Their willingness to accept the new design is another challenge. They also need to understand more access could also mean slower performance. For librarians, the challenges are maintaining the integrity of data in the knowledgebase, user training, and troubleshooting. A user survey, conducted three months after Findit@UMDNJ commenced, highlighted some user discontent. These were remedied by introducing a faster A-Z journal list and an improved service menu with fewer windows to navigate.

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Meeting Challenges in the Evolution of a Geographic Information System Environmental Health Resource

Colette Hochstein, technical information specialist, and **Martha Szczur**, deputy associate director, Division of Specialized Information Services, National Library of Medicine, Bethesda, MD, and **Darren Gemoets**, technical lead, Scientific Communities Practice Area, Aquilent, Laurel, MD

Objective: TOXMAP uses maps of the United States to help users visually explore environmental health information and facilitate understanding of environmental health data. This poster presents lessons learned while planning and designing the inclusion of health-related data sets via a geographic information system (GIS) interface that is intuitive to a wide range of users while considering the sensitivity of some types of medical data.

Methods: During focus groups, professionals and concerned citizens suggested that Superfund sites and cancer and disease data be added to TOXMAP to supplement the existing Toxics Release Inventory (TRI) and census data. Designing and implementing the suggestions posed many challenges. These included finding datasets that would integrate seamlessly with the current data, interface, and demographic layers and that would also ensure that privacy concerns were respected. Superfund and health datasets were obtained, reviewed, and compared. Aspects of the data to present and presentation techniques were evaluated, mockups were developed, and usability tests conducted. To expand TOXMAP's chemical search and reference features, Superfund contaminant lists from Environmental Protection Agency (EPA) and Agency for Toxic Substances and Disease Registry (ATSDR) were analyzed and compared to the existing TRI chemical list. Systematically aligned TRI and Superfund lists were developed to provide consistent referencing of all chemicals.

Results: Focus group feedback was used to determine which additional datasets and demographic layers would be most useful for a new version of TOXMAP. Superfund and related contaminant data from the EPA were chosen, along with dozens of new demographic layers (including age, income, cancer mortality, and disease mortality) from the US Geological Survey National Atlas. Based on feedback obtained during usability testing of hypertext markup language (HTML) mockups, "Map Controls" were added to facilitate toggling among different datasets. To guard against misinterpretation of associated maps

(particularly in assuming a causative relationship between Superfund and health data), carefully worded disclaimers and explanations were placed in several key areas of the resource.
Conclusions: Incorporating new datasets into an existing GIS can pose many challenges. It is essential to understand the data well, so that it can be represented faithfully. Such understanding also aids in planning the scope of the effort as well as future enhancements.

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Hurricanes and Other Disasters: Health information for Response, Reentry, and Recovery

Stephanie Publicker, technical information specialist, and **Stacey J. Arnesen**, advisor, Special Projects, Specialized Information Services, National Library of Medicine, Bethesda, MD

Objective: To provide timely and relevant environmental health information for public health workers and affected communities related to disasters.

Methods: A Website on environmental health issues related to disasters was created following Hurricane Katrina. This Website is one of many Web bibliographies, including chemical and biological warfare agents, air pollution, and environmental justice. Because a plan for creating these sites already existed, this site was developed, reviewed, and launched within days of the hurricane. This plan included topic selection methods, a template for site maintenance, link selection criteria, and a review process. First, initial topics and links were suggested and the site was created. Next, a team reviewed the links and identified new sources. Finally, several health professionals evaluated the site, and it was launched on September 2, 2005. Getting this information to people in need was the next challenge. A press release was issued and announcements sent to email discussion lists and other government agencies. Within days, over 1,000 sites linked to it and it had over 5,000 visitors. The Website continues to evolve. It now includes maps and canned searches on chemicals identified in disaster areas. New resources will be added throughout the recovery and rebuilding phases.

Results: Disaster response and recovery is a multi-step process occurring over days, weeks, and months. This Website initially provided links to key environmental health information needed during the first few weeks following Hurricane Katrina. Since September, it has evolved into a comprehensive resource for recovery and reentry help, providing links to information on regional chemical hazards, environmental cleanup, and access to the current medical literature. Although the site was accessed more frequently during the 2005 hurricane season, staff anticipate that this resource will continue to expand and become an important resource for disaster preparedness, as well as response for the next hurricane season.

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Transforming Health Services Research: Combining Traditional and Nontraditional Public Health Resources

Andrea Lynch, health and life sciences librarian; **Cheryl Bartel**, health and life sciences librarian; **Mike Randall**, health and life sciences librarian; Louise M. Darling Biomedical Library; and **Michael Oppenheim**, collections, reference services, and information literacy librarian, Rosenfeld Management Library; University of California–Los Angeles

Objective: This poster will discuss the importance of combining alternate sources with traditional health sciences resources to efficiently and effectively support the full range of health services research needs.

Methods: Recognizing that health services graduate students are future health services research professionals, the librarian team modified a preexisting class to cover the following resources touching on the variety of resources that are necessary to address the wide range of information needs of students in health services research: (1) Business Source Premier, (2) CINAHL, (3) MarketLine, (4) Global Health, (5) Global Market Information Database, (6) MarketResearch.com Academic, (7) PAIS International: Public Affairs Information Service, (8) PubMed Health Services Research Queries, and (9) news resources.

Through feedback from students and faculty, the librarian team was able to modify our session on health services research. We received immediate feedback from students, feedback from the faculty member regarding the students' ability to effectively find resources for effective class performance, and positive faculty perception of the value of the instruction and content of the class.

Results: The librarian team, in conjunction with Department of Health Services faculty, developed a list of business and health sciences resources of particular relevance to both students and practitioners in the field of health services research. Based on this list, the authors developed an online resource (www.library.ucla.edu/biomed/courses/hs436.html) and an instruction plan for both department of health services classes and other librarians and library staff throughout the library.

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Electronic Journal Management Systems: A Comparison

J. Michael Lindsay, electronic resources/collection development librarian, Technical Services, Biomedical Library; **Kathy P. Wheeler**, electronic resources/reference librarian, University of South Alabama Library, **Jie Li, AHIP**, assistant director, Public Services and Education, Reference, Biomedical Library; University of South Alabama–Mobile; and **Patricia M. Williams**, instructor, Marnie and John Burke Memorial Library, Spring Hill College, Mobile, AL

Objective: This poster is designed to be a guide for decision making for libraries that are considering the purchase of an electronic journal management system.

Methods: This presentation will be a feature-by-feature comparison of the public and administrative features of Teldan's TDNet Service, Serials Solutions, and EBSCO's A-Z journal management products.

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A Study of Consumer Health Monographs in Public Libraries Using a Tiered Master Checklist

Jean Williams, independent health information specialist, McGill University Health Centre, McGill University, Montreal, QC, Canada

Question: Do consumer health monograph holdings in public libraries reflect the collection development recommendations of subject experts?

Method: A tiered list of fifty-two recommended monographs in nine consumer health subject areas was developed from the updated lists provided online by health sciences librarians

through MLA's Consumer and Patient Health Information Section and from several other expert sources. For Canadian validation, the titles recommended on two or more lists were searched for in the online public access catalog (OPAC) of a major Canadian public library (Ottawa/Vancouver). The ensuing master list of validated titles was compared to the holdings of two Montreal area public libraries. These two libraries had comparable municipal tax support and the librarians were willing to be interviewed concerning their consumer health information (CHI) collection development policies and strategies.

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Online Journal Usage Statistics for the University of Florida: What We Continue to Learn

Cecilia Botero, AHIP, associate university librarian, Health Science Center Libraries; **Steven Carrico**, associate university librarian, Smathers Library; **Lenny Rhine**, university librarian emeritus, Health Science Center Libraries; and **Michele R. Tennant, AHIP**, bioinformatics librarian, Health Science Center Libraries and University of Florida Genetics Institute; University of Florida–Gainesville

Objectives: To determine how widespread access to online journals affects journal usage in the basic sciences, clinical medicine, humanities, and social sciences. To explore the relationships between consortial arrangements and usage, cost-effectiveness, and the effects of such relationships on materials budgets and selection opportunities.

Setting: The University of Florida is a large, public university. Since the mid-1990s, the university has undergone a transition from predominantly print serials subscriptions to the online and print or online only access formats, with access to more than 4,200 basic sciences and clinical medicine online journals and more than 10,000 online titles campus wide.

Methodology: This study compares 2004 and 2005 usage statistics and data from 3 major libraries on campus: the Smathers Libraries (humanities and social sciences), the Marston Science Library (basic sciences) and the Health Science Center Library (basic sciences and clinical medicine). The study utilizes full-text download statistics derived from COUNTER-compliant publishers, with the data analysis based on a random sample of 682 titles (10% of the total; accurate to 0.04 standard deviation).

Results: In 2004 and 2005, users of the Health Science Center Library and Marston Science Library accessed online journals significantly more than users of the Smathers Libraries (humanities/social sciences), despite the fact that the Smathers Libraries' print publications were inaccessible during a massive building renovation. As a result of consortia packages, the number of journals for each discipline increased by nearly 100% with significant usage of the new titles. For online journal usage, the 20/80 rule is more of a 40/80 rule, despite the fact that not one of the top 20 online journals was from the subdisciplines of medicine (research and experimental).

Conclusions: Our results suggest that the "Big Deals" (consortial deals) are, in most cases, "Good Deals." Collection management must balance the expenditures for consortia agreements with the acquisition of specific (or specialty) journals and monographs and investigate the practicality of forging consortial arrangements based on disciplines rather than geography.

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Library and Curriculum E-Resources: Can a Content Management System Do Both?

Martha Bedard, AHIP, associate dean and director, and **Gale G. Hannigan, AHIP**, professor, Medical Science Library; **Tommy Armstrong**, senior system analyst, Library; and **Darcy Tammen**, coordinator, Learning Resources, College of Medicine; Texas A&M University–College Station

Questions: Content management systems (CMS) are expensive and provide sophisticated organization and representation of information. Can a university library's investment in a content management system to represent library resources be leveraged to provide a curriculum resources database? What are the challenges and features unique to that application?

Settings/Subjects: The Vignette CMS, managed by the university library, was purchased to support the electronic presence of the library. It has also been used to provide a Web-based curriculum resources database for first and second-year college of medicine (COM) students and faculty. The curriculum database includes class schedules, lecture notes, links to streaming video, and other resources.

Methodology: The medical sciences library offered to pilot a curriculum resources database for the COM when the university library planned to purchase a content management system. The curriculum database developed along with the implementation of the library's CMS. We compare the two implementations in terms of goals and management. In assessing the overall value of the curriculum database, we measure cost, use by students, amount, and type of content added over the three years the system has been in place.

Results: Two prototypes helped define the scope and expectations of the curriculum database. Management is a partnership between library systems and COM staff. As trust developed, the COM staff person was given more database "rights." The curriculum database was conceived as a pilot implementation of the CMS; much of the programming cost was absorbed as part of overall systems development. Real costs include 0.60–0.75 full-time equivalents (FTEs) for the COM (editing, posting, publishing) and approximately 0.25–0.50 FTE for library systems (development and maintenance). More than 80% of second-year courses have EdNet content; on average, users access 7 pages per visit and download 4 files.

Discussion/Conclusion: A CMS meets the needs of a curriculum database. The expense may be prohibitive for this application alone but collaborative efforts across an organization can make it a feasible option. The university library is investigating similar applications for other schools and programs.

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Creating Space for Evolving Needs: How to Dramatically Decrease Your Print Journal Collection with Little Impact on Your Patrons

Gretchen Arnold, AHIP, interim director; **Jonathan Lord, AHIP**, assistant director, Collection Development; and **Daniel T. Wilson**, assistant director, Collection Development and Access Services; Claude Moore Health Sciences Library, University of Virginia–Charlottesville

Objective: In partnership with the school of medicine, the library is undertaking major renovations of existing library space. The objective is to meet evolving space needs, including increasing

the number of small group instruction rooms for the school of medicine, improving and enlarging the library's existing small group rooms, and eventually carving out additional space for comfortable seating and study.

Methods: The shift in library collections from large, print collections to electronic resources available any time and from any location creates the possibility for libraries to develop new space opportunities without changing the footprint of the existing building. In the summer of 2005, the library launched a three-phase project to create space by weeding out a large portion of our entire print journal collection. Under the auspices of our Collection Development Committee, the entire print journal collection is being assessed based on the following criteria: usage, impact factor, electronic availability, and citation half-life. In addition, a print core collection, unique to the needs of patrons, is being retained in event of a massive disruption of the Internet. This poster will demonstrate a timeline for the project as well as key documents and deselection criteria.

Results: Phase I resulted in the deselection of over 15,000 print journal volumes. We anticipate phases II and III to result in similar numbers, meaning a great shift from ownership to access. When the project is concluded, our streamlined print collection should include just the core collection, journals not available electronically, and journals available electronically but showing good deal of print usage.

Evaluation: Evaluation will incorporate both subjective and objective data analyses. The subjective evaluation method will center on feedback from patrons. The library staff have attempted to mitigate the impact somewhat by offering free interlibrary loan for any journal title that is weeded during this project. Objective data analysis will examine both print and electronic usage reports.

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Selecting Core Nursing Resources for Point of Care Use

Pauline S. Beam, information and education services librarian, and **Suzanne J. Crow**, collection development librarian, Gustave L. and Janet W. Levy Library, Mount Sinai School of Medicine, New York, NY

Objective: Nurses report lack of time and access to resources, limited search skills, and gaps in experience with research appraisal as barriers to their use of knowledge resources to answer clinical questions. Our intervention aims to reduce these barriers and increase hospital and ambulatory care nurses' familiarity with, access to, and use of selected online resources at the point of care.

Methods: The library, part of an academic medical center, offers access to an expanding array of electronic resources. To improve nurses' knowledge of and access to those materials, we developed a nursing resource guide, "Core Nursing Information for Everyday Practice," which provides a brief, focused collection of links to electronic books and databases. An informal focus group of nurse researchers worked with librarians to select resources from the library's collection and from the nursing department's manuals and educational materials. The collection is limited to reliable, authoritative secondary and tertiary materials and has been kept short to allow nurses to develop skill in using a core list. To reduce the time needed to access the resources, the guide was linked to nursing sites on the medical center's intranet and Internet, as well as the library's Website.

Results: Web trends monitoring began in March on site usage from all access points and is in progress. Nursing interest in the guide was evidenced when nurse practitioners and then clinical nurse managers invited librarians to present inservices on its use. Subsequent feedback was positive and led, in turn, to further requests for information and training. Finally, the hospital's nurse professional practice group has integrated the guide into the hospital's "Nursing Clinical and Administrative Manual" to support their "Standards of Care for all Units." It has also asked for the library's assistance in developing similar resources guides for nursing specialty areas.

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Transforming Borders: A Multi-state, Multi-institutional Approach to Go Local Services

Dana Abbey, consumer health coordinator, Denison Memorial Library, University of Colorado and Health Sciences Center—Denver; **Paul Bracke**, head, Systems and Networking, Arizona Health Sciences Library, University of Arizona—Tucson; **Patricia Bradley**, tribal services librarian, Health Sciences Library and Informatics Center, University of New Mexico—Albuquerque; and **John Bramble**, outreach librarian, and **Claire Hamasu**, Associate Director, National Network of Libraries of Medicine MidContinental Region, Spencer S. Eccles Health Sciences Library, University of Utah—Salt Lake City

Objective: This poster will describe the results of multi-institutional collaboration that worked together to implement Tribal Connections Four Corners MedlinePlus Go Local, a project that provides up-to-date and accurate information on human health services in Native American communities, and the strategies used to address the cultural, institutional, and geographic boundaries that needed to be overcome to implement the project.

Methods: This project consists of a working group with representation from four health sciences libraries that were assigned to implement a MedlinePlus Go Local service that linked Native American communities in their shared region to community human health services. The group developed and implemented a plan, closely worked together to the launch the resource, and continues to work on promoting the site to Native American communities. Strategies were developed from lessons learned, such as addressing how to bring services to an area that spans several political, state, and tribal boundaries; how to develop a resource in an underserved area with few services; and how to coordinate together effectively as a team to produce a relevant resource.

Results: The collaborative successfully launched the Tribal Connections Four Corners MedlinePlus Go Local and continued its work on its promotion through a contract with the National Network of Libraries of Medicine (NN/LM). Through the efforts of the collaboration, progress was made toward: serving a region that spanned the boundaries of four adjoining state, developing a MedlinePlus Go Local project in an underserved area that is racially and culturally distinct, coordinating with other MedlinePlus Go Local projects in the region, and developing an information system and publicizing in a region that is geographically distant from project coordinators. The group was able to employ a collaborative approach to implement Go Local for the area, while complementing activities in the individual states.

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Managing Digital Multimedia at the Campus Level: The HEAL Local Project

Gail L. Persily, director, Education and Public Services, and associate director, Center for Instructional Technology, Kalmanovitz Library and Center for Knowledge Management, University of California–San Francisco; **Sebastian H. J. Uijtdehaage**, assistant professor, Medicine, School of Medicine, University of California–Los Angeles; and **Kathleen Cameron**, special projects librarian, Kalmanovitz Library and Center for Knowledge Management, University of California–San Francisco

Purpose: The project described is the development of a software system that enables faculty to manage, share, and access locally created and/or licensed digital multimedia assets used for teaching.

Setting/Participants/Resources: The project principle investigators are based at two campuses of a large, public university, the library at an academic health sciences campus and the medical school at a large, multidisciplinary campus.

Brief Description: Digital multimedia are commonplace in health sciences education. As libraries embrace new roles as stewards of digital assets, the need for tools to help manage these valuable materials becomes apparent. Individual faculty also lack efficient tools to manage collections. This project has built a multimedia assets management system that allows faculty to build, manage, and distribute personal collections efficiently. The system is designed to be an enterprise-wide repository facilitating sharing of teaching resources within an organization. Based on the Health Education Assets Library (HEAL) architecture, the application is uniquely designed to support health sciences education. It adopts HEAL's metadata schema that is fully compatible with international standards. Furthermore, the design is based on extensive needs assessment among faculty at three institutions. Data on the implementation process, early usage data, and evaluation tools will be presented in this poster.

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Expanding Electronic Journals Through Publisher Site License Access: You Can Do It Too!

James R. Bulger, knowledge consultant, Library Services, Allina Hospitals and Clinics, Minneapolis, MN

Objective: This poster will outline the motivation, processes, and outcomes involved in selecting, negotiating, and eventually obtaining site licenses to provide access to selected titles from a variety of publishers in a multisite networked hospital setting.

Setting/Population: Allina Hospitals and Clinics provides information access and services across a system of eleven hospitals and forty-two primary care clinics in Minnesota and western Wisconsin.

Methods: Publisher online access and licensing models continue to evolve. In the summer of 2004, library staff came to the realization that, given our multisite setting, simple "print+online" access to electronic journals was no longer a valid option. For most publishers, an institutional online subscription now authorized use at one localized site only. To obtain access for multiple sites meant obtaining a site license. Over the next few months, library staff went through a lengthy and complex process of identifying, negotiating, and finally acquiring site licenses from a variety of publishers. This poster will outline factors involved in making these decisions (cost per use, print

journal usage, e-usage, bottom-line cost, etc.), as well as factors in negotiating price and licensing, and describe obstacles encountered.

Results: This process resulted in a significant increase in site license agreements and available online titles. It also streamlined, though not flawlessly, the ordering process through the subscription agent.

Conclusion: The process of selecting, negotiating, and acquiring site license agreements for a greatly expanded e-journal collection proved to be complex but was successful. Staff anticipate being able to build on the work done in 2004 to continue to streamline this process in the years ahead.

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Rhode Island Multi-type Library Outreach for Health Information

MaryAnn Slocomb, AHIP, director, Library Services AMC, Peters Health Sciences Library, Rhode Island Hospital/Lifespan–Providence, and **Tovah Reis**, Medical School Librarian, Sciences Library, Brown University Library, Providence, RI

Objective: Expand the knowledgebase in consumer health resources and improve the information seeking skills of librarians in Rhode Island through a multi-type library effort. Outreach extended to hospital, academic, school and public librarians. Two Regional Medical Library (RML) resource libraries, also multi-type, one hospital, one academic, collaborated to accomplish this project.

Methods: Provide five to six courses on consumer health topics to librarians from all types of libraries in Rhode Island. By bringing together staff from multi-type libraries, it was envisioned that they would share their different experiences in the courses, learn from each other, and form relationships so that the public and health sciences librarians could assist each other in the future. Another component in this multi-type library outreach project was to use existing resources, handouts, brochures, etc., from MLA and the National Library of Medicine (NLM), to distribute them to libraries throughout all of Rhode Island, and to make the libraries aware of these resources so they can obtain them on their own if they want additional copies for future use. Also, multi-type meant getting assistance from others to achieve the objectives—using current technology, especially email discussion list of the professional associations and consortiums to advertise the courses, and sending flyers and material through the state delivery service.

Results: Six consumer health information courses were arranged and presented over a one-year period. A total of 190 attendees from all types of libraries throughout Rhode Island participated. Many attendees participated in more than 1 course. The attendance at the programs exceeded the instructors' and our expectations. With participants from public, health sciences, academic and school libraries bringing their different perspective, all were able to learn from each other's experience and share information. Evaluations of these courses ranged from very good to excellent. Packets of consumer health handouts were sent to all of the public libraries, their branches, and the hospital libraries. Packets included MedSpeak, MedlinePlus brochures and bookmarks (Spanish edition was sent out to appropriate libraries), and MLA's Top Ten Websites. Evaluation of the effect of these packets is in progress.

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From Artsy to Zany: Hospital Library Committee Participation

Rebecca A. Birr, AHIP, library director, Health Sciences Library, Maricopa Integrated Health System, Phoenix, AZ; **Kathy A. Zeblisky**, medical librarian, Medical Library, Phoenix Children's Hospital, Phoenix, AZ; and **Kathleen M. Mathieson**, biostatistician, Department of Research, Maricopa Integrated Health System, Phoenix, AZ

Objective: To identify committees in which hospital librarians are currently participating.

Methods: Currently, what types of hospital committees have librarians as members? What opportunities exist in hospitals for librarians to get involved? Hospital libraries and the role of hospital librarians continue to evolve, often requiring both to find new ways to increase visibility in their institutions. The presenters propose that one way to increase visibility is to participate in committee work. A survey of hospital librarians and their current participation in committees is conducted. Survey results will be shared with colleagues so they can discover ways that librarians are involved with hospital committees. This list of committees, and other shared information, will help librarians think about and develop new ways to become involved in their own institutions.

Results: There were 327 responses to the survey. Respondents participated in a total of 1,572 committees with a median participation of 4.0 committees per respondent. Committees were categorized with involvement in the following areas: education (42.0%), administrative (23.8%), technology (9.5%), research (7.0%), clinical (6.0%), nursing (4.5%), human resources (3.2%), support services (3.1%), and facilities (0.8%). On a 5-point scale where 5 was "very positive," the mean score for respondents rating how committee participation affected the library was 4.1. A compiled list of committees will be available as well as selected comments from librarians regarding their involvement.

Conclusion: Committee participation positively affects the visibility of the library and the librarian. This project can provide librarians suggestions of hospital committees that may benefit from their participation.

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Using Blog Software to Support Resident Report

Sherry Dodson, clinical librarian, Health Sciences Libraries and Information Center; **Andrea Ryce**, resource sharing/network coordinator, National Network of Libraries of Medicine/Pacific Northwest Region; and **Edward Roberts**, head, Information Systems; Health Sciences Libraries and Information Center, University of Washington–Seattle

Objective: To provide a user-friendly online mechanism to access articles in support of patient care and education for a medicine residency program.

Methods: Using Movable Type software, a blog was implemented by the library to be used by the clinical librarian and chief medicine resident to post citations in response to questions that arise during resident report. The citations link directly to PubMed, where the library's icon appears for online full text. Gray literature such as images, electronic presentations, and items from required symposia can be uploaded. The blog serves as an online archive of topics addressed at each report, as well

as being searchable by category and by date. It has proved to be an easy and time-saving method for both the clinical librarian and chief resident to compile and share information for the medicine residents. The medicine residents can access the blog with minimal navigation and provide comments to postings. An evaluation is planned to assess the blog's design, usability, and its impact on resident education.

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Dancing Between the Purist and the Practical: Teaching Evidence-based Medicine to Medical Students in the Third-year Family Medicine Clerkship

Leonard Levin, AHIP, manager, Educational Programming, and **James Comes**, associate director, Research, Education and Information Services, Lamar Soutter Library, University of Massachusetts Medical School–Worcester

Objective: Teach third-year medical students in a family medicine Clerkship rotation the concepts and methods required to practice evidence-based medicine (EBM) and ways to search for good evidence. This course was developed with an emphasis on finding resources and included an extensive epidemiological and statistical component. Using student evaluations, the evolution of this course over five years will be explored.

Methods: The didactic and experimental curriculum was developed with a strict interpretation of search strategies and EBM philosophy and rationale. In 1999, the EBM class contained a detailed component on epidemiology and statistical interpretation of the four clinical study categories (etiology, diagnosis, therapy, and prognosis). Following each session, student evaluations were solicited and changes were made to the curriculum based on student feedback and follow-up faculty discussion. Today, a more treatment-centered, ethics-based curriculum is taught. While evidence-based vocabulary and some statistics such as absolute risk and number needed to treat are included, emphasis is placed on teaching students to look for good evidence and to use these findings in patient interactions. Collected student evaluations from across the five-year time span will be analyzed to demonstrate the evolution of the curriculum.

Results: "More time for searching!" This is always a top comment on student evaluations. Ways to make this happen are consistently being identified and put into practice. As class time is limited, what is taught and how it is taught have become very selective. One recently incorporated tool is the use of a pre-session WebCT-based orientation. Material is always being added in this format to free up class time for more interactive practice. Two other practical content areas that have recently been introduced into the course are (a) talking with patients about relative risk and (b) understanding bias in the medical literature. The very simple evaluation form remains a device with which to collect further student feedback. The course will continue to be updated as EBM methodologies and outlooks within the medical community change and grow.

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Effective Methods for Teaching Evidence-based Public Health Nursing Principles

Josephine Dorsch, AHIP, health sciences librarian, Library of the Health Sciences-Peoria; **Roberta Lyons**, project director, Regional Nursing Program-Peoria; **Sandra De Groot, AHIP**, assistant health sciences librarian, Library of the Health

Sciences-Peoria; and **Kathleen Baldwin**, clinical associate professor, Regional Nursing Program-Peoria, College of Nursing; University of Illinois–Chicago, Peoria, IL

Objective: Evaluate methods used to teach public health nurses to practice and teach evidence-based public health nursing (EBPHN). In-person sessions were designed to teach EBPHN principles to administrators and opinion leaders and enable them to promote the practice of EBPHN. Online modules were developed to provide individualized continuing education in EBPHN skills for nurses in the field.

Methods: Public health nursing administrators attending “Advancing Public Health Nursing Education” (APHNE) consortia meetings in northern and central Illinois completed pre- and posttests during the sessions and a post-test that was readministered three months later. Pre- and posttests using a Likert scale measured knowledge, skills, and perceived level of proficiency in searching for and assessing evidence. Questions were based on objectives of the “Disseminating the Evidence Base in Public Health Nursing” project, funded by the National Library of Medicine to promote evidence-based public health decisions. Short objective quizzes were used to measure actual knowledge and skills gained after the completion of each of the online modules.

Results: In the pretest, participants indicated lack of knowledge about EBPHN and the lack of proficiency in finding and using evidence. By the end of the session, level of expertise increased 55%. Posttests administered 3 months later indicated that participants experienced an additional 5% increase, for an overall 60% increase. Participants stated they were using their new skills and reinforcing what they had learned in the sessions. The online modules were also evaluated positively; quiz scores suggest that participants successfully learned the EBPHN skills presented in the modules.

Conclusions: Train-the-trainer sessions and online modules both were positively received and resulted in improved knowledge about EBPHN and increased proficiency in finding population-based evidence. The consortia sessions enabled leaders to promote the practice of EBPHN in the state and the online modules provided self-paced continuing education for nurses in the field without the need to travel.

58

Book Club Elective for Medical Students: Librarians and Students Share “Book-Talking”

Heather Blunt, research and education librarian, and **Karen Odat**, research and education librarian, Biomedical Libraries, Dartmouth Medical School, Hanover, NH

Objective: To give students the opportunity to explore medical issues in a relaxed, comfortable, “book-talking” environment. To bring together students and librarians outside the usual library-user relationship.

Methods: The Book Club is offered as an enrichment elective for first- and second-year medical students in fall and winter terms. Spouses and significant others are also invited to attend. Two biomedical librarians facilitate the discussion. Each term focuses on a different medical issue; the group reads and discusses three group-selected books over the course of the term:

- fall 2004 theme: coping with chronic illness
- winter 2005 theme: gender and cultural diversity
- fall 2005 theme: ethical dilemmas in medicine

• winter 2006 theme: issues in mental health

Students are expected to:

- help select books
- attend at least three of four meetings
- participate in the discussions

Librarian facilitators:

- choose a theme and suggest books
- participate in the discussions
- purchase books
- reserve comfortable meeting space
- provide dinner

Results: The program has been well received, with increasing enrollment and excellent student participation:

- fall 2004: five students enrolled; four completed
- winter 2005; seven students enrolled and completed
- fall 2005: eleven students enrolled and completed
- winter 2006: eight students currently enrolled

Total cost for the library is approximately \$55 per participant per term, including book purchases and dinner at each meeting.

Conclusion: Attendance and participation have been consistently good. Students report they appreciate the opportunity to read for pleasure, without guilt. We have had interesting book discussions during which students often relate their personal and clinical experiences. The biomedical libraries benefit, as well; students often approach the facilitators for library-related help. “The Book Club Elective” is a simple, enjoyable, relatively inexpensive project that could be easily reproduced in other settings.

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Getting HIP: Health Information Partnerships

Siobhan Champ-Blackwell, community outreach liaison, National Network of Libraries of Medicine MidContinental Region, Health Sciences Library, Creighton University, Omaha, NE, and **Marty Magee**, Nebraska and Education Liaison, McGoogan Library of Medicine, National Network of Libraries of Medicine MidContinental Region, Omaha, NE

Objective: Creating fair and equal partnerships between medical libraries, public libraries, and community organizations can be a daunting process. To foster partnerships, state and regional library organizations brought together potential partners to explore the process of creating alliances.

Methods: A regional and a state symposium were held in the fall of 2005 to facilitate partnerships between medical and public libraries and community organizations. The symposia asked the questions “Who are our potential partners?” and “What are our common goals?” The agenda included “how to” presentations along with small group work, using the Café to Go process, for attendees to brain storm together and come to a better understanding of partnerships and ways to build and maintain them. Informal networking time was also built into the agenda.

Results: Taking the broader regional process to the state level allowed for more concentrated efforts to be developed in a community level. Specific consumer health partners can be identified and brought to the table to create action plans.

Conclusion: Using the process modeled at the Community Health Information Partnerships Symposium, and replicating it on a state level can lead to implementation of consumer health partnerships on a community level.

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Library Outreach: Nobody Is Out-of-reach

Mariana Lapidus, reference librarian, Health Sciences Library, Massachusetts College of Pharmacy and Health Sciences—Boston, and **Irena Dryankova-Bond**, reference librarian, Blais Family Library, Massachusetts College of Pharmacy and Health Sciences—Worcester

Objective: To discuss ways for promoting library services in a small college environment; to describe the process of creating a systematic approach toward publicizing these services among students, faculty, and staff; and to recommend a series of action plans and instruments for measuring user needs and satisfaction.

Methods: The Outreach Committee composed of four reference librarians was appointed in October 2005 and charged with:

- assessing and evaluating of existing methods of promoting Massachusetts College of Pharmacy and Health Sciences Library services and resources, which includes bibliographic instruction, traditional and online live reference, faculty research support, new electronic databases and journals acquisition, Web page presence, library print publications, etc.
- planning and implementing a creative outreach program that would allow effective and systematic coordination of informing users about library activities and resources for education, teaching, and research

Results: The Outreach Committee decided to implement the following plan:

- redesign and improve the library Website; create a blog to update the college community on new database trials and recent collection purchases, publicize electronic resources and library workshops, etc.; in addition, continue using regular email alerts and newspaper column to inform students and faculty about library happenings
- administer regular students and faculty satisfaction surveys at least once a year, starting with the paper surveys in 2006 and moving to online format in 2007
- create two types of print flyers (for students and faculty), informing of library services; distribute them regularly through the registrar, mail, open houses, and library orientation

Conclusions: Systematic approach to library outreach and marketing are essential for establishing the ongoing partnership and connections with students and faculty. Library outreach is an important tool in promoting information literacy on campus and emphasizing lifelong learning.

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Transforming Obstacles into Opportunities: Expanding the Library's Role in the School of Medicine Curriculum

Megan von Isenburg, information and education services librarian; **Anne Powers, AHIP**, Information and education services librarian; and **Connie Schardt, AHIP**, education coordinator; Information and Education Services, Duke University Medical Center Library, Duke University Medical Center, Durham, NC

Objective: Describe the process and specific strategies used by the library to transform its role in the school of medicine (SOM) curriculum from an annual orientation session to a greatly expanded and integrated role in which the Library provides a wide variety of educational interventions.

Methods: When the SOM recently embarked on a restructuring of its curriculum, the library saw an opportunity to integrate

information management and evidence-based medicine (EBM) training into the curriculum. Despite recognition of the importance of these lifelong learning skills, the first iterations of the new curriculum were too compressed to allow for additional content. Some of the strategies used to overcome these obstacles included attaining membership on the SOM's Curriculum Committee, capitalizing on existing relationships with the residency training programs, and leveraging recognized staff expertise in EBM training. This resulted in opportunities to develop an information management assessment tool for first-year students and an EBM curriculum for the "CAPSTONE" course, to participate in a research project exploring the impact of technology on student learning in gross anatomy, and to design an educational intervention for the medicine preclerkship orientation.

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Hit the Road! Developing and Delivering Training on Public Health Information Resources and Mobile Technologies for Rural Practitioners

Lisa Smith, extension librarian, and **Catherine Rhodes**, instructional services librarian, Gibson D. Lewis Health Science Library, University of North Texas Health Science Center—Fort Worth

Objective: Public Health Information for Practitioners (PHIP), a "Partners in Information Access to the Public Health Workforce" project, aimed to increase public health practitioners' awareness of information resources and mobile technologies in medically underserved areas of Texas. The project was funded by the National Network of Libraries of Medicine South Central Region.

Setting/Participants/Resources: The health sciences center library serves each school in the university health sciences center and conducts outreach in 24 counties of Texas. Fifteen of these counties are designated as medically underserved areas (MUAs) and medically underserved populations (MUPs) by the Texas Department of Health.

Brief Description: Three workshops were developed and presented at six sites to rural public health practitioners in the library's twenty-four-county outreach area. The workshops were titled: (1) "Public Health Information Resources on the Internet"; (2) "Community Health Resources"; and (3) "Bioterrorism, Emergency, and First Response Resources". Highlighted National Library of Medicine (NLM) resources included WISER, HazMap, ToxMap, PubMed, and MedlinePlus. Sessions included technology showcases that demonstrated personal digital assistant (PDA) applications and Tablet PC capabilities. PDAs were raffled off at each training site. Course information was available via the project Website. Continuing education credits were available for attendees.

Results/Outcome: The curricula for these workshops expanded both the potential audiences and the instructional course offerings for Lewis Library's outreach program. Additionally, the trainers' subject knowledge and technology skills increased as the curriculum was constructed. The two most challenging obstacles presented during the project were hardware-software compatibility issues and the difficulty faced when attempting to assemble a public health audience. The minimal number of public health practitioners designated to these large rural regions severely reduces the time that practitioners can devote to in-class continuing education opportunities.

Evaluation Method: An initial needs assessment was conducted by surveying public health practitioners within Texas Public Health Regions 2/3 and 7. An evaluation form was filled out by participants at the end of each workshop. These evaluations were analyzed to determine potential flaws in the methodology and the curriculum was altered to more effectively impart course information.

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Utilization of Clinical Decision Support to Enhance Early Detection of Chemical or Biological Terrorism

Jennifer A. Byrnes, informatics cybrarian, and **Art Papier**, associate professor, Department of Dermatology, University of Rochester, Rochester, NY

Purpose: A case study of the New York City Department of Health and Mental Hygiene's (NYCDOHMH) deployment of a clinical decision support system (CDSS) to enhance diagnostic accuracy and surveillance of chemical or biological terrorism will be discussed.

Setting/Participants: Clinicians in the emergency departments of fifteen teaching hospitals in New York City were trained.

Brief Description: Improving early detection and surveillance for chemical or biological disease is at the forefront of current public health challenges. The December 2004 study, *Ready or Not Protecting the Public's Health in the Age of Bioterrorism*, issued by the Trust for America's Health examined our nation's emergency preparedness capabilities, concluding that despite millions dollars in federal funding, many basic bioterrorism detection and diagnostic capabilities are still not in place. Medical librarians play a pivotal role in identifying evidence-based tools that will address such vital needs.

Results/Outcome: Clinicians will become skilled users of a CDSS to support visual diagnostic accuracy and chemical or biological terrorism diagnosis.

Evaluation Method: Usage of the CDSS is monitored through hits to an ASP server. Clinicians will be surveyed. Continuous feedback is provided by clinicians to assess satisfaction.

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Transforming Pharmacy Student Workshops: Program Overview and Evaluation

Brenda F. Green, coordinator/assistant professor, UTHSC Library/Instructional Services, and **Lin Wu**, reference librarian/instructor, UTHSC Library/Reference Services, University of Tennessee Health Science Center—Memphis

Objective: This poster describes a new instruction model that one library tailored for their first-year pharmacy students. Previously pharmacy students voluntarily signed-up to attend a two-hour library workshop held in an electronic classroom with shared workstations. Instruction included didactic and hands-on database training. Workshop evaluations revealed mixed reactions. Some students favorably evaluated the session, others felt the time spent could be shortened, and some felt the entire session could be Web-based. In response to student evaluations, a new teaching model evolved with three goals (1) greater emphasis on self-directed learning, (2) expanded use of Blackboard, and (3) increase attendance.

Methods: A team approach transformed a program, which had been in place for nearly a decade, into a model that could be evaluated based on outcomes as well as student evaluations.

An outline for the program was developed by the instructional services coordinator. Faculty responsible for staffing the information desk assisted in building the curriculum. The new model combined independent learning with traditional and electronic instruction. Blackboard was used to deliver the curriculum, track student participation, and evaluate the session. This model was developed for over 100 first-year pharmacy students attending a comprehensive health sciences center.

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Library Liaisons Enhance Researcher Productivity by Use of a Common Bibliographic Management Software Interface to Deliver Current Awareness Information

Frank Davis, AHIP, head, Reference Commons; **Rick Brewer**, assistant director, Research and Education Division; and **Carla Townsend**, graduate assistant; Medical Center Library, University of Kentucky—Lexington

Objective: The project is designed to deliver quality-filtered full database records to faculty and staff in a customized format that can be easily imported into a common software interface. This allows both widespread individual and shared use of information for patient care, education, and publishing. EndNote is the selected software, because the campus has a site license for faculty, students, and staff.

Methods: Participating liaison librarians contact researchers to assess research and technology needs. Subject specialist librarians determine the best databases and search strategies. Search strategies are created, stored, and run on a regular basis. Each week's new results are entered into EndNote libraries maintained by liaison librarians. New citations are exported in extensible markup language (XML) to participating faculty and staff via email attachment. The researchers save the attachments to desktop and then import results into their appropriate EndNote library by use of the "EndNote Generated XML" filter. Librarians add value by customizing EndNote's "out of the box" database filter templates to include locally added fields that link to full-text citations and the library catalog. Parallel customization of filters is required on the EndNote software on both liaison and researcher terminals to allow importation of full-text links.

Results: A liaison librarian attends internal medicine morning report and researches learning issues pertaining to clinical needs. The librarian searches multiple resources and imports selected records into an EndNote library. Email is used to send selected full-text portable document format (PDF) files and an exported EndNote XML file to chief residents and faculty. The internal medicine EndNote library has over 1,000 quality-filtered citations, most containing full-text hotlinks, searchable from clinician terminals. Sanders-Brown Center on Aging receives a weekly selective dissemination of information (SDI) service in XML format that is imported into a center research repository and forwarded to individual researchers using EndNote in a non-networked setting. Markey Cancer Center uses EndNote to maintain a list of faculty publications. College of dentistry and librarians have begun discussions to evaluate EndNote use for grant support and current awareness. This project enables liaisons to seamlessly deliver timely information to multiple users. Recipients utilize citations for research and publication. The project has interdisciplinary implications.

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The Library's Role in Recruiting Volunteer Clinical Faculty

Rita Sieracki, reference librarian; **Mary Blackwelder**, AHIP, director; and **Barbara Jamieson**, public services librarian; MCW Libraries, Medical College of Wisconsin–Milwaukee

Objective: This poster will highlight a partnership between academic librarians, an office of faculty affairs, and a department of family and community medicine in recruiting volunteer clinical faculty.

Methods: Over the past three years, librarians have collaborated with the office of faculty affairs and a department of family and community medicine in promoting the academic library to community physicians. The goal was to attract community physicians to become volunteer clinical faculty. The department of family and community medicine invited the librarians to assist in staffing a booth at the department's annual continuing medical education open to family physicians throughout the state. The librarians' role was to highlight library resources to all attendees. In addition, librarians and the associate dean for faculty affairs attended eight local community hospital medical staff meetings and conferences. The librarians developed brochures that were distributed to approximately 300 potential volunteer clinical faculty. PowerPoint and online demonstrations of resources of the library were presented that promoted the variety of resources with emphasis on the electronic resources. To date, 85 community physicians have completed the application process through the office of faculty affairs to become volunteer clinical faculty.

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Making a PROMIS and Keeping It: Providing Comprehensive Literature Search Services to a National Institutes of Health Roadmap Initiative

Mary L. Klem, faculty librarian; **Ester M. Saghafi**, faculty librarian; and **Rebecca A. Abromitis**, faculty librarian; **on behalf of the Pittsburgh PROMIS Research Site**, Falk Library of the Health Sciences, University of Pittsburgh, Pittsburgh, PA

Objective: This poster will report on a collaboration between a health sciences library system and investigators from one site of the multisite Patient-Reported Outcomes Measurement Information System (PROMIS), a National Institutes of Health (NIH) roadmap initiative.

Setting/Participants: Librarians from a large academic library system serving six schools of the health sciences and an academic medical center, and investigators from a five-year NIH-funded multisite research project.

Brief Description: The specific aim of PROMIS is to develop new methods of assessing self-reported outcomes in patients with a range of chronic diseases. A key step for the PROMIS site located at the school of medicine was completion of librarians' comprehensive literature searches to identify currently available questionnaires used for assessing patient reports of emotional distress (e.g., depression, anxiety, anger). This poster presentation will discuss: the evolving information needs of project investigators, procedures developed to facilitate communication among librarians and with project investigators, methods for choosing resources used in searches, creation and refinement of search vocabularies, methods used to optimize searches, and quantitative descriptions of search results.

Results: Librarians developed a formal protocol for conducting comprehensive literature searches. As a first step, librarians collected lists of subject headings for each domain of emotional distress and for the concepts of measurement and self-report. Headings and their original sources (e.g., MEDLINE) were entered into an Access database. PROMIS investigators reviewed lists of terms and voted to retain or reject each term. Investigators' votes were tabulated by librarians, who used this input to help in final selection of search terms. The number of terms identified for emotional domains ranged from 305 to 509; 989 terms were found that reflected assessment and self-report. Searches of selected databases yielded 6,169 citations. From these citations, investigators identified 362 primary citations containing relevant assessment instruments. The appointment of one librarian as a coinvestigator and biweekly teleconferences provided for regular communication with investigators. Both were major factors in this successful, ongoing collaboration between librarians and investigators.

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Delivering Health Information to Native Americans: What, Where, Who, and How

Judith Rieke, assistant director and collection management librarian, Library of the Health Sciences, University of North Dakota–Grand Forks

Objectives: This poster will describe a health information outreach subcontract from the Greater Midwest Region of the National Network of Libraries of Medicine. The project had the following objectives: (1) to train Native American health care providers; (2) to reinforce, strengthen, and maintain a working relationship with tribal college librarians on the reservations; and (3) to expand the Linking Native Americans to Health Information Website. The poster will display the what, where, who, and how of the project along with results, evaluation, successes, and challenges.

Methods: Contacts and training sessions were established with (1) physicians and other health care providers at Indian Health Service facilities, hospitals, and clinics; (2) independent physicians and other health care providers on the reservations; and (3) tribal health care personnel and community health representatives (CHRs) who work directly with people living on the reservations.

Results: Sessions held included: 15 hands-on training, 105 attended; 14 demonstration and informational sessions, 553 attended. Persons attending included physicians, physician's assistants, nurses, pharmacists, other professionals (e.g., social workers, tribal CHSs, tribal education coordinators, tribal college faculty and staff, office support staff), and students. One hundred two evaluations were received: 97 said the class met expectations, 101 said that the instructor was organized, and 99 said that the class provided information that respondents will use later. Tribal college librarians felt that it is important to help people find health information, one-on-one training is most effective, and they need more staff to be effective in training others to find health information. Website usage has increased from 1,079 uses in 2002 to 10,864 in 2005.

Conclusions: Reservation health care providers and tribal college librarians appreciate training to find quality health information. They found it helpful to learn about Websites that focus on American Indian health problems. The challenges

of staff shortages, variations in available technology and staff Internet experience, busy schedules, priorities, finding examples to illustrate American Indian health concerns, and tribal politics all impacted the numbers of people getting training. Persistence and flexibility are needed to be effective in a voluntary health information training project.

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Librarian-Faculty Partnership at a Statewide Family Medicine Conference: Transformation from Vendor to Instructor

Barbara Jamieson, public services librarian; **Rita Sieracki**, reference librarian; and **Mary Blackwelder, AHIP**, director; MCW Libraries, Medical College of Wisconsin–Milwaukee

Objective: This poster will trace the evolution of the librarians' role from staffing a faculty booth at a statewide meeting of family practitioners to teaching a class on evidence-based medicine (EBM). The class outline and evaluations will be highlighted.

Methods: The department of family and community medicine (F&CM) sponsors an annual two-day meeting called Winter Refresher for statewide family practitioners. F&CM hosts a booth to promote the department. The first year of library participation was based on a request from F&CM to have librarians help staff the booth and conduct database demonstrations. A number of attendees visited the booth and asked questions about EBM. When the F&CM faculty asked the librarians for feedback on the meeting, the librarians suggested that next year a physician discuss how they use EBM in their practice. Based on evaluations from attendees, who commented very positively on the role of the librarians, F&CM asked the librarians to team teach a seminar on EBM at the following years (2005) meeting. Over seventy registrants attended the EBM seminar in 2005. Class evaluations were complimentary. The librarians have been invited back to teach another EBM session at the 2006 Winter Refresher.

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Assessing and Transforming a Medical Informatics Curriculum for Medical Students

Brenda L. Seago, AHIP, associate professor, Computer Based Instruction Lab, School of Medicine; **Rachel A. Gyore**, NLM fellow, Tompkins-McCaw Library for the Health Sciences; and **Susan Williams**, senior library assistant, Computer Based Instruction Lab, School of Medicine; Virginia Commonwealth University–Richmond

Objective: The school of medicine (SOM) responded to the Medical Informatics Objectives Survey from the Association of American Medical Colleges (AAMC). Each school was asked to state whether the medical informatics objectives were taught, stated, and assessed in the medical school curriculum. Our goal is to determine who has responsibility for each objective and to identify areas for improvement.

Methods: Initially, we mapped the points of integration of informatics with course syllabi in eleven first-year courses, fifteen second-year courses, and seven clinical clerkships during the third year. We developed a structured questionnaire in preparation for interviews with SOM Curriculum Council members. The purpose of the interviews will be to educate faculty on where informatics is already taught in the curriculum. In addition, we would ask faculty to help us identify specific courses and faculty where we might not be aware that the medical informatics

objectives are being taught or assessed. Through this process, we hope to identify any remaining gaps and present these results to the SOM Curriculum Council.

Results: In our review of the medical school curriculum, we have identified gaps in the integration of medical informatics. We have yet to make a formal presentation to the SOM Curriculum Council, but thus far our review of the curriculum has raised awareness of the AAMC medical informatics objectives with faculty. In one case, a course director contacted us to be involved in a grant proposal to integrate public health throughout the medical school curriculum and wants us to include informatics teaching and assignments

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Faculty Technology Workshops: Transforming Faculty Through Training

Leslie Schick, director, Library Services, Academic Information Technology and Library, University of Cincinnati, Cincinnati, OH

Objective: This poster describes a faculty development program developed by librarians at the University of Cincinnati. The goal of the program is to motivate and enable faculty to improve teaching by using technology in the classroom.

Methods: The program goal was achieved by providing a series of ninety-minute, hands-on technology workshops throughout the academic year followed by an intensive weeklong summer instructional technology workshop. Workshop topics have evolved over time. Current workshop topics include Blackboard, Microsoft Office products (beginning, intermediate, and advanced levels), Adobe productivity tools (Acrobat, Illustrator, Photoshop), digital images and sound, bibliographic management software (EndNote, RefWorks), Dreamweaver, personal response systems in the classroom, and personal digital assistant (PDAs). In December 2005 the libraries are hosting a one-day "mini" institute consisting of hands-on workshops as well as the opportunity for faculty who have attended previous workshops or institutes to demonstrate teaching or learning projects that they have implemented in their classrooms.

Results: Over 3,300 faculty have attended workshops since 1999. One hundred forty faculty have participated in the 7 weeklong instructional technology institutes. Faculty are asked to complete evaluation forms at the end of each workshop to provide immediate feedback to the instructors and program coordinators. In addition, faculty who have attended workshops and/or summer institutes are asked to complete a survey 1 or 2 years after attending a workshop to see what impact the workshops has had on their teaching or other scholarly pursuits. Data from these follow-up surveys indicate that faculty believe that skills they learned in the workshops or institutes positively impacted their teaching.

Conclusion: This program has been very successful as measured by both attendance and faculty satisfaction with the workshops or technology institutes. The program has boosted the reputation of librarians on campus as leaders in technology and training and has created opportunities for partnerships and collaborations with other units on campus.

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Translating Student Self-assessments into Improved Instruction

Deborah L. Lauseng, information services librarian, and

Patricia W. Martin, head, Electronic Systems; Taubman Medical Library; **Alison Grodzinski**, head, Operations, Public Health Library and Informatics; and **Bradley Sietz**, Information Services, Taubman Medical Library; University of Michigan–Ann Arbor

Objective: To use incoming nursing students' self-assessment data to support (1) planning and development of future library instruction and (2) increasing the integration of information literacy into the nursing curriculum.

Methods: For the past three summers, incoming school of nursing students have participated in hands-on orientation to library resources. The orientation entailed self-directed exercises in the book and journal stacks and exercises with using the online library catalog. The students ranged from being incoming freshman and sophomore transfers to returning RNs seeking their four-year degrees. Following each hour-long session, the students completed a brief self-assessment. A total of over 320 students have participated in the self-assessments over the past 3 years. The Web-based assessment (11–12 questions) asked about their usage of the Internet and library databases prior to the orientation session and about their comfort level after participating in the orientation.

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ICONic Training: Use of a Content Management System to Provide Continual Reference Student Education

Kathryn J. Skhal, reference and education librarian, and **Catherine Thureson**, reference assistant, Hardin Library for the Health Sciences, University of Iowa–Iowa City

Objective: To provide continuing education to information desk students, career reference staff have created an online course using the university's content management system (CMS).

Methods: The library staffs forty hours a week with four to six graduate students from the university's school of library and information science. Traditionally, the student reference training consisted of four weeks of orientation and bibliographic instruction sessions with staff, desk shadowing, and paper-based quizzes on library resources and services. When the campus purchased Desire2Learn, called Iowa Courses Online (ICON) locally, the library saw an opportunity to extend training throughout each student's term of employment. In May 2005, a "Library Reference Course" went online in ICON. The course was designed to contain three main components: (1) online quizzes on library resources, services and other topics, (2) weekly articles discussions relevant to health sciences librarianship, and (3) a "challenging questions" module where students and staff discuss interesting questions they received while at the desk.

Main Results: ICON has quickly become an essential resource to student training. The schedule is no longer limited to a four week session; students can now obtain much broader and more detailed training. It has enabled the examination of lesser-known resources and awareness of current events in the library world. More problematic questions have been presented as referrals or learning opportunities than ever before. Career staff can also objectively track the students' bibliographic searching skills and professional development and foster group dialogues where work shifts made them difficult.

Conclusion: Content management systems are being widely purchased at the institutional level to support instruction. Libraries should seriously consider utilizing this software

internally for student or career staff orientation and training. ICON has provided a simple way for students to continually improve their reference skills and professional awareness. As an added benefit, course participation also keeps career staff up to date in the field.

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Innovative Access to Consumer Health Information: Partnerships Lead the Way

Sally M. Patrick, research assistant librarian; **John C. Bramble**, outreach librarian; and **Valeri Craigle**, digital initiatives librarian; Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

Description: This poster discusses Utahealthnet at the University of Utah's Spencer S. Eccles Health Sciences Library. The project is information infrastructure program funded by the National Library of Medicine (NLM) that creates collaborations among Utah's diverse health information and service providers. Human networking and data telecommunication technologies are being utilized to provide access to health information for all state residents in multiple formats. Educational resources, services, training, and promotion are provided through the project, facilitating access to high-quality and useful consumer health information regardless of vast geography. Utahealthnet synthesizes locally relevant and Web-based health information from agencies like the Utah Department of Health and Cancer Action Network as well as many other community-based organizations. National health information found on MedlinePlus also gives users a wide range of authoritative consumer health information. MedlinePlus GoLocalUtah resources provide a direct link to human services in each county, most of which are rural communities with few health providers. In addition to a portal Website and strong organizational partnerships, Utahealthnet services include the development of training programs that focus on online, just-in-time, and face-to-face hands-on sources and services, professional marketing of resources, and desktop delivery of full-text health information through Utah Health Info Direct.

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Outcomes and Measurable Indicators Drive the Logic Model Approach for a Liaison Program

Neville D. Prendergast, associate director, Communication and Outreach, and **Elizabeth Kelly**, associate director, Information Technology and Library Systems, Bernard Becker Medical Library, Washington University School of Medicine, St. Louis, MO

Objective: Library staff initiated an effort to transform services through an outreach program that meets the users in their workplace because they are not coming to the library. Using an evaluative logic model approach, the library developed a set of program goals and methods of assessment for carrying out activities of the liaison program. This project demonstrates that collaborative planning enables the library to transform its services by tracking activities and judging the effectiveness of the new service to library users.

Methods: Library liaison programs require consideration of the service needs of user groups and the contributions of the librarian provider group. Knowledge of user needs and a set of activities to provide service are not sufficient. The goals and objectives of

the program must focus on these needs, and relevant outcomes and measures of success need to be in place. The professional library staff met in a series of collaborative sessions to arrive at a logic model that articulates the program goals, determines the desired outcomes, and outlines “best” indicators of progress. This approach of plan backward, implement forward produced a logic model for the program that combined the suggested elements.

Results: The liaison program has benefited and will continue to benefit from careful tracking and reporting of activities based on desired goals and outcomes, regular meetings to discuss activities and progress, and a retreat during which we examined contributors to successful relationships. Salient points realized thus far:

- there are values that users hold
- there are traits that build successful partnerships
- there are librarian actions and activities that foster success in establishing and maintaining partnerships

Reported program activities and services indicate that logic model goals and outcomes are beginning to be met.

Conclusions: Successful liaison programs depend on building lasting partnerships with individuals and groups. The plan backward, implement forward logic model allowed us to establish our goals and the outcomes we sought and to define the indicators of success. We deliver value by building on our understanding of sound partnerships while continually reviewing and revising services designed to achieve our goals and outcomes.

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Blog This! A Proactive Method to Increase Library Outreach

Lisa Huang, reference librarian, Learning Resource Center, Collin County Community College District, McKinney, TX

Objective: To determine if an establishment of a Weblog, commonly referred to as a “blog,” would increase faculty, staff, and student awareness and usage of a library’s services in a community college. The outcomes may assist other libraries and library resource centers in identifying ways to increase usage and promotion of the library’s services.

Methods: Blogs were established for the previous academic year with the respiratory care program at Collin County Community College District, facilitating communication between the health sciences librarian and the faculty and students. The librarian and respiratory care faculty were primarily interested in disseminating and addressing the information needs of the students in the program. Individual user surveys were conducted at the end of the academic year to assess the students’ satisfaction with the blogs and the library.

Description: An online questionnaire was used to capture student responses. The results were sent to the author via email. The students agreed that they liked the blogs (87%) because they supplemented the class content. The students agreed (82%) that the blogs increased their knowledge about the services the library offers. Sixty-nine percent of the students stated that they liked the blog. Please see online survey, data results, and personal comments. A comparison of circulation statistics for the respiratory care titles in the collection revealed a 30% circulation increase between 2003 and 2005.

Discussion/Conclusions: Blogs have the potential to supplement class content and to encourage discussion between faculty and students as exemplified by this study. Librarians can use blogs to

market library services to foster collaboration at their institutions. Further areas to examine are encouragement of student participation in blogs and the use of library sponsored blogs to serve student research needs.

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Teaching Public Health Students Skills for Evidence-based Practice

Gale G. Hannigan, AHIP, professor, Medical Science Library, Texas A&M University—College Station

Objectives/Questions: Can a model for teaching evidence-based medicine to students be transferred successfully to teaching students of public health? What modifications are necessary to reflect the characteristics of public health practice?

Settings/Subjects: Three-semester credit public health informatics course taught once each year to approximately twenty master’s-level students.

Methodology: An evidence-based practice course project was introduced in 2003. It requires students to identify a published report of a public health intervention and critically assess the research using guidelines adapted from an evidence-based medicine critical appraisal assignment. The two sets of guidelines are compared to identify differences that reflect the different research characteristics and practice concerns in medicine and public health. Students’ performance is evaluated, as well as their feedback about the assignment.

Results: There is considerable overlap in the project guidelines for medical and public health critical assessment exercises. Obvious differences reflect the different approaches of the two groups (e.g., clinical versus public health interventions) and applicability to patients in central Texas versus applicability to the rural Texas population. As expected, public health students are more familiar with concepts of validity including study design and methods of analysis.

Discussion/Conclusion: A project designed to teach evidence-based medicine skills can, with slight modification, be used to teach public health students skills for evidence-based practice. Modifications reflect the different approach and skill set of students studying public health.

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Tipping the Scales: The Role of Information Services in an Obesity Prevention Coalition Initiative

Terry Henner, head, Information and Education Services, Savitt Medical Library, University of Nevada School of Medicine—Reno

Objective: To describe the collaboration between an academic medical library and consortia of local public health organizations to build information-sharing capacity into a regional obesity reduction initiative. This pilot study reports on the contribution of a variety of technological approaches to information sharing and dissemination in achieving public health goals.

Project Description: This describes how information technologies can support and enhance the activities of care providers, educators and advocates who have entered into a regional coalition aiming at reducing obesity rates. A collaboration between library and public health professionals led to a multichannel mechanism for access and distribution of information related to obesity reduction. The audience for this project includes a broad range of health-related professionals working in academic, governmental, and nonprofit settings.

Efforts include the creation of a centralized Web-based information clearinghouse; an really simple syndication (RSS)-based current alerts service to deliver updates on current clinical research, legislative activity, and best practices; and a host site for electronic discussion forums on topics related to obesity.

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Teaching Medical School Electives: Beyond Clinical Resources

Doreen R. Bradley, head, Education Services; **Theresa S. Arndt**, head, Outreach Services; **Patricia W. Martin**, head, Electronic Systems; and **Gurpreet K. Rana**, clinical librarian, Taubman Medical Library, University of Michigan–Ann Arbor

Objective: To explore a more holistic approach to information management and teach concepts that are broader than EBM, to expose students to a wide range of information tools and resources than are not typically taught in their required courses, and to increase library integration in the medical school curriculum.

Methods: Second-year medical students are required to take two electives during the fall term. Librarians submitted proposals to teach two electives. Both proposals were accepted and taught in fall 2005. “Information Management for the Busy Clinician” explored appropriate selection of resources, citation searching, health databases beyond MEDLINE and evidence-based medicine (EBM), advanced searching concepts, RefWorks, and current awareness tools such as auto-alerts, really simple syndication (RSS) feeds and podcasts to help them keep up with the growing body of medical information. “Psychosocial Information in the Clinical Setting” examined psychosocial issues in medical practice through the introduction of topical information resources including PsycINFO, SocioFile, and Web of Knowledge using a case-based approach to broaden students’ information-seeking behavior. In both courses, instruction included lecture, hands-on practice, readings, individual, and group projects.

Results: A total of forty-six students signed up for the two electives. Overwhelmingly positive evaluations demonstrated that students appreciated the need for the expanded information skills being taught. Librarians gained important credibility as educators in the medical curriculum.

Conclusion: While EBM is already in most medical curricula, librarians can explore a more holistic approach to information management and teach concepts that are broader than EBM. These sessions demonstrated that medical students see both the immediate and future application of nonclinical information tools and resources to their work.

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Support for the Systematic Review in Evidence-based Practice: A Simplified Model for a Multi-campus Research Team

Sheila Hofstetter, AHIP, senior reference librarian, Noble Science and Engineering Library, Arizona State University–Tempe; **Leslee B. Shell**, assistant librarian, ASUW Library, Arizona State University at West Campus–Phoenix; **Danielle M. Carlock**, reference and instruction librarian, Polytechnic Campus Library, Arizona State University at Polytechnic Campus–Mesa; and **Jenna Amani**, Arizona State University at the West Campus–Phoenix

Objective: How can academic librarians best support nurse researchers engaged in a systematic review? The traditional search methods fall short of the team’s more rigorous requirements for process, structure, documentation, and recall of evidence. This case study closely examines the librarian’s role as a dynamic conduit between information, process, and evaluation in the systematic review process.

Methods: Difficult searching techniques, lack of a clear system for the dissemination and utilization of research findings, and lack of time to review and implement research are commonly described problems for those engaged in a systematic review. Librarians model a systematic search sequence based on the problem, intervention, comparison, outcome (PICO) question, the best levels of an evidence hierarchy, and the best search strategies. To facilitate the team’s strategic need to share citations and articles across three campuses, academic librarians explore several options but ultimately select a Web-based citation management tool. Moreover, librarians devise a naming convention for citation management folders that reflects the search strategy and required elements for documentation. With innovations in place within the team process, librarians expand them into a Web-based graphic teaching model.

Results: Team members refer to new innovations that provide quick access to vital information required for team discussions, writing reviews and grants, replicating search strategy, standardizing workflow for efficient management of incoming and outgoing information, and defending their proposal and research topics.

Conclusion: Integration into the research team was essential to the librarians’ discovery of hurdles facing faculty in early stages of conducting a search for best evidence. Librarians respond with timely and “on the spot” innovations to resolve a wide range of complex and interrelated issues arising from the unique mix of information challenges inherent in the evidence based practice research model.

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Library Contributions to Cultural Competency: Greater than the Sum of the Parts

Theresa S. Arndt, head, Outreach Services, Taubman Medical Library; **Alison Grodzinski**, head, Operations, and **Helen Look**, information services librarian, Public Health Library and Informatics; **Anna Ercoli Schnitzer**, information services librarian, Taubman Medical Library; and **Patricia F. Anderson**, head librarian, Dentistry Library, University of Michigan–Ann Arbor

Objectives: To increase outreach and educational efforts for addressing unmet cultural competency needs. To create a synergistic effect by building relationships with institutional partners.

Methods: The three health sciences libraries participated in a variety of low-cost outreach and educational projects to increase cultural competency for the university and health system patrons. Emphasis was placed on small, easily achievable projects and on establishing relationships with institutional partners including the health system Office of Multicultural Health, the University Council for Disability Concerns, and the campus Information Technology Department. Exhibits addressed health disparities; racial, ethnic, and gender issues; and library resources and services to support cultural competency. Special needs equipment

was acquired to serve patrons with disabilities. Specialized Web resources were developed to link minority and bilingual populations with quality-screened health information and local community resources. Cultural competency projects underway include a Web guide to cultural competency resources, an open class in search strategies for finding cultural competency resources, and more in-depth collection development activities.

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Expediting Evidence-based Practice by Building Clinical Partnerships: The Role of Central Arizona Biomedical Libraries in the Arizona Consortium for the Advancement of Evidence-based Practice

Lora Robbins, AHIP, librarian, Merrill W. Brown Health Sciences Library, Banner Good Samaritan Medical Center, Phoenix, AZ; **Shelia Hofstetter, AHIP**, senior reference librarian, Noble Science and Engineering Library, Arizona State University–Tempe; **Darlene Perry, AHIP**, medical librarian, Medical Library, Mayo Clinic–Scottsdale, Scottsdale, AZ; and **Michael Kronenfeld, AHIP**, librarian, Learning Resource Center, AT Still University for the Health Sciences, Mesa, AZ

Objective: To unite medical librarians with nursing faculty and hospital clinicians throughout the state and across the learning research, and practice continuum to expedite the implementation of evidence-based practice (EBP) through focused identification, assessment, and eradication of barriers.

Setting/Participants: In 2005, Arizona State University’s College of Nursing launched the first of its kind, a state-wide Arizona Consortium for the Advancement of Evidence-based Practice (AZCAEP). Currently, nurses represent over fifty agencies and institutions that joined together to implement EBP. The membership of the Central Arizona Biomedical Libraries (CABL) consisting of thirty-eight hospital, academic, community colleges, and special libraries have joined with AZCAEP to further its goals.

Program: The founding leadership of the AZCAEP champion the vital role that librarians play in EBP and encourage health care professionals to invite their institutional librarians to their meetings and workshops. CABL members serve on the various committees of AZCAEP and seek to further the efforts of the consortium through their advocacy of EBP back to their facilities.

Results: The initiatives done by the CABL members benefit their institutions and the community through their participation in this vast and supportive learning community focused on building an infrastructure that supports the teaching, learning, and implementing evidence-based practice.

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Creating a Scientific Editing Service

Rhona S. Kelley, AHIP, head, Reference and Education; **Fran E. Kovach, AHIP**, reference and education librarian; and **Carol Thornton, AHIP**, reference and education librarian; Medical Library; and **Connie Poole, AHIP**, associate dean, Information Resources; Southern Illinois University School of Medicine–Springfield

Objective: A scientific editing service was proposed during a meeting of representatives of the school of medicine library and the associate and assistant deans of research and faculty affairs (ADRAF) to respond to a growing research mandate of the university and the school. Medical library faculty agreed to offer

this service as a one-year trial.

Methods: The medical library faculty, in conjunction with ADRAF, established the scope and procedures for meeting deadlines and editing scientific papers. The service was announced at research meetings, to the Executive Committee, and via an all-user email announcement. The trial study would determine whether a scientific editing service would be used by the faculty and could become a permanent service. The number of papers received, the availability of medical library faculty time, and the usefulness of the editing to the authors were factors to be considered in evaluating the success of the service.

Results: Six departments (two basic science and four clinical science) submitted sixteen documents representing nine journal articles, three abstracts, three grants, and one book chapter. Two grants were from basic sciences, and one from clinical sciences. Five journal articles were from basic sciences, and three from clinical sciences. One journal article was from a combined basic-clinical joint research project. The book chapter was from the clinical sciences. Initial author response was positive.

Conclusions: The service was positively received, and the workload was manageable. At the end of the trial, plans were made to further publicize and extend the service. Further extension of this service to the Carbondale campus of Southern Illinois University School of Medicine is under consideration. This service supports the institutional goal of achieving growth of the research enterprise of Southern Illinois University.

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Out of the Box: Bioethics Facilitation and a Nontraditional Approach to Campus Outreach and Professional Development

Elizabeth D’Antonio-Gan, head, Reference Services, Denison Memorial Library, University of Colorado and Health Sciences Center–Denver

Objective: This paper describes the author’s participation as a facilitator in an inter-professional bioethics course as a means of doing outreach to students and faculty, doing “in-situ” observation of information literacy skills, and contributing to the university’s educational initiatives through a nontraditional method, while acquiring relevant professional skills

Methods: All beginning graduate students on the health sciences campus are required to enroll in the “Ethics in the Health Professions” course. The interdisciplinary approach to teaching this course places students in a diverse classroom setting with students from other health professions, along with volunteer facilitators from all walks of life including members of hospital ethics committees, practicing lawyers, social workers, chaplains, businesspeople, and others. Over 400 students were divided into small groups. Course materials were distributed online through Blackboard, and the groups met to discuss a variety of ethical questions using an 8-step case analysis process. The richness of this experience for students and facilitators will be highlighted as well as the benefits for librarians to become involved in nontypical teaching experiences. All it took was one step toward this unusual outreach activity.

Results: During the ten-week bioethics course, students and facilitators gained a deeper understanding of and respect for each others’ health professions and left with a greater commitment to collaborate with all members of the health care team in the delivery of ethical patient care. Of note is

that students learned the importance of consulting a librarian as part of the health care team for assistance in searching for background information beyond MEDLINE, including health and social policy, demographic, cultural competency, and legal information, to name a few fields. Professional development for the librarian/author included improvement in extended teaching and facilitation skills beyond the traditional one-shot library instruction session, networking with professionals from the community, and expanding her knowledgebase in ethics and the culture of the various health careers.

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Expert Searchers' Contributions to Evidence-based Health Policy Making

Min-Lin E. Fang, information services librarian; **Gail Persily**, director, Education and Public Services; **Keir Reavie**, manager, Education Services; and **David Owen**, education coordinator; Kalmanovitz Library and Center for Knowledge Management, University of California–San Francisco; and **Penny Coppernoll-Blach**, librarian, Biomedical Library, University of California–San Diego, La Jolla, CA

Objective: This presentation will describe the significant contribution medical librarians could make in support of evidence-based health policy practice for proposed state legislation. It will also discuss the development of guidelines and procedures to work efficiently with a multi-campus team.

Methods: The Health Benefits Review Program was established in 2002 to respond requests from the legislature and to provide independent analyses of the medical, financial, and public health impacts of proposed health insurance benefit mandates. A team was formed consisting of clinical and research faculty from multiple university campuses with expertise in clinical medicine, public health, medical economics, health policy, and librarians. Librarians worked closely with the team and conducted extensive literature searches for each proposed mandate. Based on the evidence-based medical literature, the team wrote independent analyses on medical and cost effectiveness and public health impacts of proposed bills. Each report summarizes sound scientific evidence relevant to the proposed bill but defers policy decision making to the legislature. The evidence-based reports are invaluable to the legislature in its decision making.

Results: The project has provided an excellent venue for librarians to work with faculty and researchers in multiple disciplines from multiple campuses. The experience has showed a new role for librarians to contribute their searching expertise to shape the health care policy.

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Collaborating with Faculty to Support Research in Medical Education and the Implementation of Innovative Medical School Curriculum

Josephine Tan, education and information consultant, Clinical Programs, and **Keir T. Reavie**, manager, Education and Information Services, Kalmanovitz Library and Center for Knowledge Management, University of California–San Francisco

Program Objective: Librarians teach in a medical education research course and participate in a weekly conference to help school of medicine faculty and students locate relevant research literature for funding applications and writing articles in medical education.

Setting: Medical school in a large academic research environment, where faculty and students do extensive research in medical education to support continuing innovation of the medical school curriculum.

Participants: Faculty and students in the school of medicine and librarians.

Program: The school of medicine offers their “Teaching Scholars” course once a year for teaching faculty. The course helps faculty become better researchers in medical education practices, which facilitates innovation in the medical school curriculum. “Teaching Scholars” students complete a medical education research proposal that contains a comprehensive literature review. Librarians teach a hands-on literature searching workshop during this course. Librarians also participate year-round in a weekly “Educational Scholars Conference” with faculty and students. The conference is used to review and discuss drafts of faculty and student funding proposals to research medical education and articles being prepared for submission to medical education journals.

Main Results: Librarians teach a hands-on workshop in the library’s computer lab for “Teaching Scholars” students on searching the medical education literature, utilizing PubMed, CINAHL, ERIC, and evidence-based medical education Websites like the Campbell Collaboration and Best Evidence Medical Education (BEME). Before the Educational Scholars Conference, librarians review funding proposals and articles, run preliminary literature searches, and provide relevant research literature to faculty and students. Librarians may also perform follow-up searches for faculty and students after the conference discussion. In some instances, librarians meet individually with faculty and students to help them complete comprehensive literature searches for their medical education research.

Conclusions: The presence of librarians in the “Teaching Scholars” course and the weekly “Educational Scholars Conferences” helps faculty and students retrieve and manage information more efficiently and visibly strengthens their funding applications and journal publications.

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Evidence-based Surgery Training: Collaborating to Fulfill Competencies

Linda C. O’Dwyer, education librarian, Galter Health Sciences Library, and **John Coyle**, Associate Program Director, Curriculum, Department of Surgery, Northwestern University, Chicago, IL

Objective: To assist the surgery department in fulfilling some of the competencies outlined by the Accreditation Council for Graduate Medical Education (ACGME), namely: use information technology to support patient care decisions; locate, appraise, and assimilate evidence from scientific studies; and make informed decisions about diagnostic and therapeutic interventions based on up-to-date scientific evidence and clinical judgment.

Methods: Traditionally, EBM training initiatives at the institution have focused exclusively on medicine programs, with little emphasis on the needs of the surgery curriculum. Based on an instructional model used elsewhere and adapted to the requirements of the institution, the clinical education librarian collaborated with the surgery department to develop an evidence-based surgery training program. The librarian and the director

of the surgery curriculum created a training session covering framing a surgical question and searching for the best evidence in the literature. The director of the surgery curriculum formulated questions relevant to the residents' specialties, while the librarian taught the residents how to do efficient evidence-based surgery searches in MEDLINE. The residents were asked to submit the results of their searches to the librarian, who graded the searches using a set criteria and returned them to the residents with comments and constructive criticism.

Results: Of 25 residents in the first-year surgery program (PGY-1), 20 attended the instructional session and 15 of the 20 attendees submitted the assigned exercise. Comments during and after the instructional session indicated that residents thought it a worthwhile exercise and felt that they had learned valuable skills. Most of the residents achieved a score over 80% according to the grading criteria used. Next year, staff plan to take additional time to focus on problem, intervention, comparison, outcome (PICO) and question-formulation. The program can be improved by asking the residents to formulate their own questions from recently encountered patient scenarios rather than distributing prepared questions in their specialty. While currently time does not permit this, we would also like to add a critical appraisal component to the program.

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A Stroke in Time: Senior Citizen Access to Trusted Stroke Information

Valerie A. Gross, AHIP, director, Community Health Resource Library, and **Britain G. Roth, AHIP**, director, Academic Information, Geisinger Health System, Danville, PA; **JoAnn Babish, AHIP**, director, Health Sciences Library, and **Vicki Frisino**, director, HealthInfo Library, Moses Taylor Hospital, Scranton, PA; and **Linda Famiglio**, director, Medical Education, Pennsylvania Rural Stroke Initiative–Danville

Objective: Two health care systems, a state district public library, and a physician-based community organization established a collaborative partnership to increase access to quality stroke information using Internet resources and blended educational instruction for a community of senior persons.

Methods: With outside funding procured, the multidimensional team implemented a strategy to reach seniors in a predominately rural area. The project included building an educational program to meet information needs, enhance health literacy, and improve senior persons' ability to partner with caregivers in improving stroke outcome in the community. The educational program included two pieces:

1. "How to Prevent, Recognize, React, and Recover from a Stroke"
2. "How to Find Trusted Stroke Information on the Internet"

A librarian-health care professional team presented the program at twenty-four senior centers and public libraries. The project incorporated the development of a Website to house an online version of the educational program and resources. A targeted marketing campaign increased awareness of the training program and Website.

Results: The results from the demographic survey, pretests, posttests, and evaluation form were double-key entered to ensure accuracy. The majority of participants fell within the target audience age range with 34% "65–79 years old" and 41% "80 and older." Most participants (85%) had at least a high school

diploma or GED. In most cases, posttest scores improved over pretest scores, with vast improvements occurring in the areas related to knowledge of Internet resources. The participants overwhelmingly agreed that the presenters were knowledgeable, interesting, and approachable. The participants felt they would be able to identify ways to prevent a stroke, recognize a stroke, be able to identify steps to take when a stroke occurs, identify steps to recovery, and be able to find trusted stroke information on the Internet. Overall, the program met the goals of educating the community about stroke and access to trusted stroke information on the Internet.

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Developing a Tutorial for Consumers on Evaluating Online Health Information

Stephanie N. Dennis, NLM associate fellow, Health Sciences and Human Services Library, University of Maryland–Baltimore, and **Naomi Miller**, manager, Consumer Health Information, and **Paula Kitendaugh**, lead, Health Information Products Unit, National Library of Medicine, Bethesda, MD

Objective: To develop a stand-alone tutorial for consumers on how to evaluate online health information.

Methods: The project team reviewed the professional literature regarding how users search for online health information and explored sites on evaluating online health information. The Regional Medical Libraries' consumer health and outreach librarians provided feedback on the overall tutorial concept. Next, the team devised a list of technical and content specifications. They opted to create a prototype in PowerPoint that could be used to fine-tune the tutorial before final implementation. To identify key concepts to cover in the tutorial, the team evaluated nine selection guidelines (e.g., HONcode, DISCERN) and identified recurring elements. A programmer created "good" and a "bad" Websites that the tutorial would compare. After drafting a script, the team created the PowerPoint prototype that served as a springboard for developing the final product in Viewlet.

Results: A programmer used the PowerPoint prototype as a guide when creating the final version of the tutorial. The tutorial will be available online through MedlinePlus and in a stand-alone version. The project team anticipates that the product will be useful to librarians, information professionals, consumer health or outreach librarians at the Regional Medical Libraries, and consumers.

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A New Role for Hospital-based Librarians in Academic Medical Centers: Providing Consumer Health Information Curricular-based Practica

Patricia A. Hammond, AHIP, librarian; **Jean P. Shipman, AHIP**, director and associate university librarian; and **Catharine S. Canevari**, interim deputy director; VCU Libraries, Virginia Commonwealth University–Richmond

Objective: With cultural competencies increasingly emphasized in health sciences curricula, students seek experiences working with vulnerable populations. Our hospital-based consumer health information center offers practica that allow medical, pharmacy, and public health students the opportunity to improve their patient education and communication skills. The students learn how to identify and access consumer health information and to work directly with the public.

Methods: The electives were developed to meet specific course requirements. The school of medicine elective was designed as a four-week course for fourth-year students who desire to improve their ability to relate appropriate health information to patients. The school of pharmacy elective provides a twenty-hour service learning opportunity about health behaviors in pharmacy. A twenty-hour community service experience is available to master of public health students. The librarian and other hospital staff introduce students to the criteria for evaluating and locating current and reliable consumer health information; tips for selecting information that is culturally sensitive, age appropriate, and understandable; health literacy issues; learning barriers; and assessment of information resource readability levels. Students practice their new knowledge by giving individual assistance to the patients and family members who visit the consumer health information center.

Results and Conclusion: Two medical students, two pharmacy students, and four public health students have completed the electives. Student evaluations have been positive because the experience increased their awareness of information resources, improved their ability to communicate with patients, expanded their ability to assess patient learning skills, and altered their teaching methods to meet individual needs. The electives provided students with direct contact with patients and community members, which enhanced the university-community relationship. Difficulties to overcome in attracting students included faculty turnover, existing curricular requirements, competing electives, and informing students of the new elective. The elective has augmented the role of librarianship in the academic medical center and further integrated services provided by the health sciences library into the curricula.

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Using Controlled Vocabulary in Adverse Event Reporting to Improve Patient Safety in Clinical Trials

Margaret M. Gorman, coordinator, Data and Safety, Arizona Cancer Center, University of Arizona–Tucson

Objective: This poster will show how the use of the National Cancer Institute's Common Toxicity Criteria has improved accuracy, timeliness, and efficiency of adverse event (AE) reporting in therapeutic clinical trials.

Methods: The poster will illustrate the process and timeline for the digitization project including: electronic data capture of adverse events, building of the database, education and training of health care personnel, debugging the software and reporting of adverse events. De-identified examples of adverse event reports will show various aspects of data analyses for mandatory and ad hoc reporting.

Results/Outcome: The "digitization" of adverse events reporting allows for contemporaneous monitoring and analysis of events resulting in improved safety for patients participating in clinical trials. With electronic capture of adverse events, ad hoc data reviews are available in addition to mandatory reports required by the Food and Drug Administration, pharmaceutical sponsors, institutional review board, and other monitoring agencies. New features will be added to the database to improve functionality and reporting.

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Informed Caring: A Project to Promote Evidence-based Practice in Rural Health Care

Cynthia M. Reinl, AHIP, librarian, Rose Library, Bellin Health, Green Bay, WI; **Mark Scully**, library consultant, Bay Area Medical Center, Marinette, WI; and **Suzanne Matthew**, executive director, and **Diana H. Robertson**, knowledge management consultant, Northern Wisconsin Area Health Education Center–Wausau

Objective: To assess the effects of providing the following education and information services to public health workers for facilitating evidence-based decision making:

- training in evidence-based practice and health information literacy
- point-of-need access through a user-friendly Web portal into a virtual health library for searching a range of free and licensed databases
- provision of full-text documents for any retrieved references

Setting: The study comprises the health departments of ten counties. These mostly rural counties all include health professional shortage areas or Indian reservations.

Participants: The study involves eighty-three public health professionals, including nurses, dietitians, health educators, environmental specialists, and others.

Program: The Informed Caring program is funded by a three-year information systems grant from the National Library of Medicine (NLM). The initial year, 2005, has been spent planning, organizing, establishing contracts, identifying client personas, developing training curricula, and otherwise laying the groundwork for program implementation. In 2006 Informed Caring education and information services will commence, as will program evaluation efforts to include client surveys, online usage reviews, and results analysis.

Main Results: The study will assess the impact of Informed Caring services on the professional practice of public health workers for improving information access and advancing evidence-based decision making. Results will be gathered through 2006 and 2007 on the following progress criteria:

- number of nursing students and health professionals trained in health information literacy
- analysis of types and formats of materials accessed from Web portal
- usage of Web portal by nursing students and health professionals

Conclusion: It is expected that the Informed Caring program will provide a model that can be adapted for other public health organizations in rural settings.

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Promoting Equity in Health Information: A Community Outreach Collaboration

Patricia Wilson, associate director, Public Services, and **Richard Billingsley**, coordinator, Information and Instructional Services, Himmelfarb Health Sciences Library; **Karyn Pomerantz**, research scientist and adjunct instructor, Department of Prevention and Community Health; **Betsy Gardiner**, reference librarian, Himmelfarb Health Sciences Library; and **Eduardo Pezo**, research assistant, School of Public Health and Health Services; The George Washington University, Washington, DC

Objective: A coalition of eighteen organizations dedicated

to advancing health information literacy and equity, Health Information Partners (HIPS) members develop curricula, promotional materials, funding proposals, and evaluations tools to bring electronic health information resources to neighborhood health centers. Training participants will be able to:

- explain a community-campus strategy for health information literacy outreach and collaboration
- identify key organizations that advance health literacy in the community.
- describe the components of a community outreach planning process.

Methods: In 2000, a community assessment affirmed interest in improving health information access and skills. In 2003 with funding from the National Library of Medicine, HIPS was created. Members included the state adult education agency, primary care coalitions, HIV advocates, public libraries, the Area Health Education Center, an academic medical center library, a public health school, the local public health association, peer educators, and health centers. Members contribute knowledge from adult education, library science, a mobile technology classroom, libraries, training centers, staff, and vast community relationships. Contributions enable us to reach a diverse, multi-jurisdictional region with formal classes, outreach visits, and health advocacy. Members meet monthly to develop and revise training curricula, promotional materials, funding proposals, and evaluations.

Results and Conclusions: Coalition members worked with health centers, service learning students, and community advocates to reach 4,500 people. During its first year, HIPS held 14 monthly planning meetings, bimonthly community forums, and a minimum of 2 training classes and conducted 10 outreach visits each month. Successful outreach and collaboration require frequent onsite presence, involvement in community health issues, adherence to the principles of inclusion and adult learning, relationship building, and resource sharing. The principles of community-based participatory research (inclusion, multiracial/ethnic collaboration, and shared decision making) guide HIPS. The project has been renewed for the next year.

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Creating and Implementing Evidence-based Tracheotomy Care Guidelines: Transforming Best Intentions into Best Practices

Pamela C. Sieving, informationist, NIH Library, and **Susan F. Rudy**, Family Nurse Practitioner and Otolaryngology Nurse Practitioner, NIH Clinical Center, National Institutes of Health, Bethesda, MD

Objectives: To describe the creation and implementation of evidence-based guidelines for all aspects of care of adult patients with tracheotomies in a US biomedical research facility.

Methods: This poster is a case study. Two nurses and an informationist assigned to a tracheotomy consult service undertook the creation and implementation of guidelines incorporating standards derived from evidence-based medical and nursing research. This involved identifying discrete pertinent aspects of tracheotomy care, searching for and evaluating appropriate evidence as well as other guidelines and standards of care, creating the guidelines, and implementing their use. It also required education in the concepts and techniques of evidence-based medicine and nursing and educational and group-process

techniques to implement the adoption of new practices. This poster includes lessons learned and offers guidance to others interested in similar projects.

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Taking It to the Streets: Making Outpatients Safer with Practice-based Learning and Improvement Morning Report

Gail Y. Hendler, AHIP, director, Library Services, Health Sciences Library, Lenox Hill Hospital, New York, NY

Objective: As prescribed by the Accreditation Council of Graduate Medical Education (ACGME), practice-based learning and improvement (PBLI) morning report was established to educate our postgraduate year 3 internal medicine residents on common ambulatory medicine topics; to locate, utilize, and apply the best scientific evidence to questions arising in outpatient care, and to likewise provide their patients with information to enhance decision making.

Methods: The library's role in PBLI includes three components that work to support the goals of information literacy and practice-based learning for both our teaching faculty and students. Library workshops for the teaching faculty and monthly classes for residents via ambulatory rotation lecture schedule on evidence-based medicine and information resources help to routinely support and enhance information literacy skills. Prior to, and as part of the monthly PBLI morning report, residents schedule one-on-one "house calls" with the librarian to learn to focus a clinical question and locate an answer from the appropriate evidence-based and patient information resource. Finally, at PBLI morning report, the librarian demonstrates resource selection and search technique. Pre- and posttest data have shown an improved learning by our residents and physician assistant students, and our residents have rated PBLI as a favorite educational tool.

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Creating an Environment to Improve Patient and Consumer Health Care: Outreach to Public Libraries, Senior Centers, and Clinics

Naomi C. Broering, AHIP, FMLA, dean, Libraries, Library; **Stacy L. Gomes**, academic dean, Academic Affairs; and **Gregory A. Chauncey**, program manager, Medical Library, Pacific College of Oriental Medicine, San Diego, CA; and **Douglas Spence**, branch librarian, Library, Taylor Pacific Beach San Diego Public Library, San Diego, CA

Objectives: This poster describes the Pacific College of Oriental Medicine Library's (PCOM) outreach program designed to improve patient and consumer health care by creating an environment for teaching access to health information to a diverse population at several community settings.

Methods: The medical library created a community outreach environment with the goal of informing local residents how to improve their health and health care by accessing authoritative information using the National Library of Medicine (NLM) and authenticated databases. Methods include:

- initiating partnerships with a senior center and church-based clinic to provide computer workshops and extending the program to two public libraries
- instructing attendees, consumers, and clinic patients on finding evidenced-based medical information on their health conditions

- enhancing resources of the library's Web page by adding senior health databases and links to nutrition, public health and health organizations; MedlinePlus is the primary resource
- featuring a unique range of topics including East-West medicine (integrative, alternative medicine, and general medicine), drug information, public health, and Medicare

Publicity includes newspapers, brochures, fliers, and posters.

Results: A baseline data and project goal to reach 2,500 people was surpassed. Over 3,725, including 3,300 seniors/adults attended the health information literacy presentations and over 425 attended hands-on classes. Diversity of user population includes varying ethnic backgrounds, minority groups, low-income to middle class, seniors/adults, and health professionals. One-on-one assistance enabled novice seniors with mouse, scrolling, and basic computer skills. Large type, earphones, and large keyboards and monitors were acquired for disabled and visually impaired seniors.

Conclusions: Evaluation questionnaire results indicate that few knew how to access health information or about MedlinePlus and other related databases. Questionnaires and telephone surveys indicate that attendees felt they gained knowledge and computer skills. Lessons learned include the need for labor-intensive one-on-one instruction to teach seniors basic mouse and computer use, and wireless network issues encountered. There are other libraries and senior centers interested in participating. The National Network of Libraries of Medicine (NN/LM) Pacific Southwest Regional Medical Library Service (PSRMLS) partially supports this program.

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The Transplant Candidate: Who Will Fail and Who Will Succeed? The Librarian's Continuous Improvement

Hattie H. Vines, AHIP, information services librarian, Information and Education Services, and **Ellen M. Stone**, transplant social worker, Duke Transplant Center, Duke University, Durham, NC

Objective: The objective of this poster is to provide insight into how the transplant patient will function emotionally post-op; develop test instruments that best predict who will fail and who will succeed; assemble instruments in a single resource; and impact patient care through test development, documentation, and resulting resources.

Methods: A list of psychosocial test instruments was provided by the solid organ transplant social worker. To identify instruments, a search of the medical literature was conducted. Databases included HAPI, PsycINFO, CINAHL, and MEDLINE. Traditional print resources were then consulted, including *Mental Measurements Yearbook*, *Tests*, and *Tests in Print*. Articles that may contain actual instruments were assembled and reviewed by the transplant social worker. Experts in the field were identified and another literature search conducted. Transplant nursing associations and society Websites were also searched. Finally, the United Network for Organ Sharing library was contacted.

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Walking and Talking through History: Putting to Use the Archived Materials of a Specialty Nursing Association

Mark Vrabel, AHIP, information resources supervisor, and

Christine Maloney, administrative assistant, Library, Oncology Nursing Society, Pittsburgh, PA

Purpose: This poster highlights the ways the archived materials of a specialty nursing association have been utilized and promoted, particularly during anniversary celebrations.

Setting/Participants/Resources: The Oncology Nursing Society (ONS) is a national organization of more than 32,000 registered nurses and other health care professionals. ONS maintains an archived collection of project files, photographs, oral history recordings, and other materials of historical significance.

These materials are utilized in various ways, especially during anniversary years such as ONS's 25th and 30th anniversaries.

Results/Outcome: Anniversary celebrations were limited in duration to that given year, and the results of all associated activities were documented in official reports completed by the anniversary project team, of which the librarian was a member. Other archives projects are ongoing, such as the oral history interviews, national office display case, and assistance to chapter and special interest group (SIG) histories.

Evaluation Method: Feedback on the "walk through history" was solicited via a comment box placed at the end of the exhibit. The exhibit also received outside media coverage; for example, an article was published in *Nursing Spectrum*. For activities of this nature, much of the feedback is more informal, such as verbal comments from exhibit attendees and viewers of displays.

Brief Description: In 2000 (ONS 25th anniversary) and 2005 (30th anniversary), some ways in which archived materials were used included a "walk through history" exhibit at the annual congress highlighting the society's growth and achievements (it also included significant social and medical trends/headlines); a supplement to the society's Oncology Nursing Forum journal documenting the organization's development (reprinting many photos and documents from the archives); and columns in the society's ONS News authored by the librarian as well as excerpts from the oral history interview transcripts of ONS past presidents (excerpts also were displayed as captions to hanging portraits in the aforementioned "walk through history" exhibit). Archived materials are put to use outside of anniversary years as well, via rotating displays in the national office, providing photos and research materials for a book on the history of oncology nursing, and assisting ONS chapters and SIGs with their own historical needs.

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From Seed to Maturation: The Development of Consumer Health Outreach by the National Network of Libraries of Medicine

Terri Ottosen, AHIP, consumer health outreach coordinator, and **Becky Hebert**, specific populations outreach coordinator, National Network of Libraries of Medicine Southeastern Atlantic Region, University of Maryland–Baltimore

Purpose: This poster will illustrate the progress of the consumer health outreach program by the National Network of Libraries of Medicine (NN/LM) that began as a pilot project in 1998 when the National Library of Medicine (NLM) announced that forty-one public library organizations would work to increase public awareness and access to health information on the Internet.

Setting/Participants/Resources: NLM launched MedlinePlus in October 1998 with 22 health topics. Now with over 700 health topics and millions of users, it has become one of the most

popular sources of reliable health information. Through NN/LM with 8 regions, NLM has funded numerous projects and provides outreach to librarians and consumers to improve the public's access to health information. Each region of the network now employs a consumer health outreach coordinator who coordinates and facilitates consumer health outreach and educational activities including providing classes geared to public librarians.

Brief Description: Since launching MedlinePlus and expanding activities in consumer health outreach, NLM has developed additional resources such as Go Local pages in MedlinePlus, the Household Products Database, Genetics Home Reference, and ToxTown. These databases serve to provide increasingly sophisticated consumers with the information they want and need. As the network prepares to enter a new contract period, outreach activities will involve a wide variety of organizations including health sciences and public libraries and community and faith-based organizations and schools.

Results/Outcome: Recent surveys indicate that over ninety-three million people have gone online in search of health information. As the baby boomers become seniors and various population shifts occur, the demand for reliable health information will only increase. Health information literacy will be critical if all consumers are to participate in their own health decisions and outcomes. Outreach efforts in the new contract period will broaden to include the formation of new partnerships to reach people in locations where information gathering occurs naturally, such as beauty parlors, food co-ops, and churches. NLM's long range plans include addressing such issues as health disparities, health literacy, and consumer health research.

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Harold S. Diehl: Pioneer in Randomized Controlled Trials

Karla J. Block, AHIP, outreach and communications coordinator, Reference and Instructional Services; **Lisa McGuire**, assistant librarian, Reference and Instructional Services; and **Katherine V. Chew**, head, Collection Management, Collections; Bio-Medical Library, University of Minnesota–Minneapolis

Description: The library is located in Diehl Hall, named after Harold S. Diehl, fifth dean of the medical school. Diehl (1891–1973) was a prominent figure at the university and is well known for his work in tuberculosis control, cancer research, smoking and health, and books on healthful living. Diehl is more than a name on a building and a prominent figure in his time. He was also an important contributor to the early history of controlled clinical trials through his pioneering 1930s research. He and coworkers published results in 1938 from what has been termed a “remarkable trial” on the efficacy of vaccines for the common cold. This work is often considered one of the first instances of a randomized, double-blind, placebo-controlled trial—though arguably so because the assignment of volunteers either “alternately” or “at random” is at issue. Whatever the assignment method, Diehl's work is notable because it was far from common practice in research methods at the time and is considered an important example of an early controlled clinical trial—possibly predating the publication of a well-known British trial by ten years. Diehl's research suggests there is much to be learned from prominent figures in an institution's history.

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Bloodletting: From Medical Doctrine to Quackery in Europe and the New World

Cynthia Kahn, AHIP, reference librarian, Medical Library, Legacy Health System, Portland, OR, and **Gail Kouame**, consumer health information coordinator, National Network of Libraries of Medicine Pacific Northwest Region, University of Washington–Seattle

Description: The belief that an imbalance of the four humours—blood, phlegm, cholera (or yellow bile), melancholy (or black bile)—caused illness persisted for over two millennia in European medical thought. Physicians treated illness by purging, starving, vomiting, or bleeding patients. Europeans brought their medical beliefs with them to the colonies they established in the New World. The practice of bloodletting was performed in the colonies from its earliest days. Several American revolutionaries, particularly President George Washington and Benjamin Rush, the preeminent American physician of the time, were known to advocate its use. Unfortunately, when Washington developed a throat infection in December 1799, he was bled (with his consent) of nine pints of blood over twenty-four hours. He died shortly thereafter. Rush was a medical teacher at the University of Pennsylvania where he taught bloodletting. Bloodletting remained a medical doctrine in the eighteenth and early-nineteenth centuries until science experienced many remarkable breakthroughs, such as the discovery of germ theory. Once a scientific basis for medicine was adopted, bloodletting in the practice of medicine went from doctrine to quackery.

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Implementing and Managing a Digital Imaging Service for Archival Reference and Research

Lisa A. Mix, manager, Archives and Special Collections, Kalmanovitz Library and Center for Knowledge Management, University of California–San Francisco

Objective: To describe development and implementation of a new service, digital imaging of historical materials, to meet the demands of researchers. The poster will address procedures, pricing, and imaging standards as well as managing digital images.

Setting: The University of California–San Francisco (UCSF) Library and Center for Knowledge Management is a large academic health sciences library. Archives and Special Collections serves a variety of users, including UCSF faculty and staff as well as historical researchers from around the world. The majority of users of the digital imaging service have been from UCSF.

Methods/Brief Description: In recent years, researchers have been requesting digital reproductions of historical photographs and documents, rather than photographic prints. As requests increased, we realized the need to meet this demand and deliver a digital imaging service to our users. After researching equipment, procedures, and standards used in similar institutions, we purchased scanning equipment and software and developed procedures and pricing for the service. We used existing accepted standards for digital imaging.

Results: Since introducing the service in February 2005, we have had requests for an average of fifteen digital images per month. Most, though not all, of the users have been from UCSF

departments. Special Collections staff is developing a database to manage the digital images created, along with associated metadata. This will enable us locate existing images quickly, both for efficient delivery to researchers and for use in online exhibits.

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Historical Exhibitions at the Association of American Medical Colleges (AAMC)

Cynthia R. Kahn, AHIP, reference librarian, Medical Library, Legacy Health System, Portland, OR, and **Marian Taliaferro**, manager, Reference Center, Association of American Medical Colleges, Washington, DC

Purpose: This paper will report on the success of the archives program at the Association of American Medical Colleges (AAMC).

Setting: The AAMC Mary H. Littlemeier Archives is a small, association's archives. The archives staff have developed a robust program, which includes a few permanent exhibits.

Brief Description: The AAMC funded an exhibit development project from 2003 to 2005 resulting in the completion of several permanent displays. The themes range from general historical, "From 'Phisition' to Medical Doctor: A History of Medical Education in the United States from 1620–2005," to local, "A Timeline History of the AAMC 1876–2005," topics. A background of the archives, and a description of the exhibit development—from timeline to costs, successes, and outcomes—will be covered. A brief overview of future projects will also be reported.

Results/Outcome: The exhibit program ended successfully in May 2005 with the debut of panel exhibits on all floors of one of the AAMC headquarters buildings. Visitors and guests may tour the exhibits if their visit is scheduled in advance.

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First Things First: Using Active Records Management to Enhance Archival Acquisitions

Kathryn H. Baker, manager, Access Services, Countway Library of Medicine, Harvard University, Boston, MA

Objective: How can the library improve the comprehensiveness and usefulness of the school archives it stewards?

Methods: The library operated a passive archives program; as a result, it collected some nonarchival materials, while valuable records were discarded. To build more comprehensive archives, the library initiated a records management program designed to:

- develop relationships with administrators by meeting their need for record-keeping guidance
- encourage a record-keeping culture by integrating good practices into school policies
- protect archival records by identifying them before the point of creation
- enhance appreciation of school legacy by promoting its administrative usefulness

A two-pronged approach was employed. To obtain the cooperation of critical administrators, efforts were made to address their business needs. Recently, program efforts focused on issues immediately relevant to the school: NIH compliance; fiscal accountability; and potential loss of corporate knowledge due to retirements. Approaches include workshops, consultations, and records management input into departmental policies. To ensure broad support for preserving archives, efforts are also

made to demonstrate the benefits that derive from their use. Tactics include promoting use of archival images in school publications, celebrating school achievements with exhibits, and methods that tie the school's legacy to issues of current concern.

Results: Greater awareness of the library's role in record keeping and archives is demonstrated in an increase in the numbers of referrals and requests for archival records made by administrative offices. School-wide records keeping policies and practices have been considered and/or adopted by administrative offices including finance and information technology; such saturation can influence the creation and preservation of archival records. The number and volume of archival accessions has increased, with a wider variety of offices transferring archival records. Efforts to engage records creators in the preservation of archival records can be successful if doing so enhances their ability to accomplish work with greater efficiency and effectiveness and address issues of concern. Leveraging strategic opportunities to highlight the benefits of records management and archival records is critical. Because opportunities are unique to each organizational setting, tactics must be contextually based; however, the overall approach is scalable and transferable to any organization.

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Libraries and Disaster Preparedness and Recovery: Making Your Library a Safer Place to Be During a Natural Disaster and Making It Easier for Your Library to Recover from a Natural Disaster

Darcel A. Bryant, AHIP, associate librarian, Louis Stokes Health Sciences Library, Howard University, Washington, DC

Objective: To provide an overview of the library's role in an event of a natural disaster. The information includes options and strategies to help staff develop or improve disaster preparedness at a library.

Methods: This electronic poster gives a description of the damage that occurred in many libraries that resulted from a flood, earthquake, hurricane, or tornado. These disasters happened in various parts of the United States between 1994 and 2001. In each case, the disasters had a profound affect on library services and materials. That is why it is imperative for every library (no matter the location, size, or type) to take steps to develop a disaster preparedness plan or update present plans. Included is a list of libraries with disaster plans in place. There were many lessons learned from the aftermath of the library disasters. This information will provide some of those lessons, which can be helpful with planning, staff training, and recovery from a natural disaster at a library.

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Balancing the Budget and Positioning Your Library for Financial Success

Aphrodite M. Bodycomb, assistant director, Business Development and Operations, Administration, and **M.J. Tooley, AHIP**, executive director, Administration, Health Sciences and Human Services Library, University of Maryland–Baltimore

Objective: Increases in the cost of resources combined with flat budgets prompted the library to look at its accounting practices to see if the budget could be balanced more effectively.

Methods: The library has experienced shortfalls in funding and other financial challenges. To manage these issues, the

library established a central accounting department to audit several aspects of the budget and to determine whether the financial situation of the library could be improved. The audit results provided a starting point for the accounting department to construct the framework to implement changes to improve the overall financial situation of the library. Through corrective measures, smart planning, re-negotiating, and reorganizing of the accounting processes, the library is now positioned for future financial success.

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Building Successful International Library Partnerships

Jie Li, AHIP, assistant director, Public Services and Education, Biomedical Library, University of South Alabama–Mobile, and **Wendy (Gang) Wu**, information services librarian, Shiffman Medical Library, Wayne State University, Detroit, MI

Objective: To promote health sciences library partnerships between libraries in developing and developed countries.

Brief Description: The poster defines international library partnership, characterizes types of partnership, partnership initiatives, critical success factors, barriers and benefits of partnerships, and process of partnership. The poster particularly describes the International Cooperation Section's Health Sciences Library Partnership Committee's efforts for health sciences library partnerships between libraries in developed and developing countries, and its roles in assisting the formation of international partnerships between health sciences libraries. It further presents case studies of successful library partnerships that result from collective efforts between libraries in resource-poor countries and resource-rich libraries in North America.

Results: Health sciences library partnerships enhance knowledge that will improve global health and bridge the health information gap between the North and the South. The partnership program not only assists libraries in developing countries, it also makes librarians in developed countries feel that the program broadens their own experience, sharpens their skills, and often results in a better understanding of their local situation and enriches their professional lives.

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Transforming Conference Planning with Project Management Tools

Colleen M. Kenefick, AHIP, director, Center for Healthcare Informatics Education; **Susan E. Werner**, informatics librarian; and **Mary C. Chimato**, head, Access Services; Health Sciences Center Library, Stony Brook University, Stony Brook, NY

Objective: The myriad challenges of organizing successful single or multiday conferences require extensive preparation and teamwork over an extended period of time. Conference planning follows a natural life cycle from creating the original proposal, gaining organizational support, planning, implementing, and then finally evaluating outcomes. This poster examines the integration of two original project management tools to organize local, regional, or statewide library conferences.

Methods: Regional library associations do not employ professional conference planners, and this task most often is undertaken by a few dedicated volunteers. The primary planners need to set objectives, plan a budget, establish policies, select a venue, organize a program with presenters and speakers, work with vendors, and publicize the event. A scarcity of practical

information is available for organizing the major meeting activities of their professional library associations. Two project management tools were developed that allow planners to track and monitor progress for library conferences or major chapter meetings. A detailed conference planning timeline was created that will take planners throughout a typical twelve-month planning process month by month describing all required aspects. A registration fee worksheet was also developed that breaks down all conference costs for communications, facilities, food functions, marketing, presenters, programming, registration, and transportation.

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Library Disaster Preparedness

Barbara Armstrong, AHIP, librarian, Reference, and **Jennifer Tom**, administrative assistant, Biomedical Library, University of California–San Diego

Objective: Disaster preparedness in a library is a responsibility that is never completed. It requires ongoing attention and modification. This poster will highlight the actions of the Library Safety and Security Team (LSST) as it relates to disaster preparedness.

Methods: LSST is charged to “develop a coordinated and sustainable safety, security, and emergency response program to protect the Libraries’ staff, users, collections, equipment and facilities.” If 2005 taught anything, it was that disasters will happen: tsunamis, earthquakes, hurricanes, and wildfires. It can be daunting to think of the possibilities and the far-reaching implications of a major disaster. Preparation is the key to minimizing loss. The thought, energy, and effort of the LSST has been significant. This poster will provide concrete examples of how one library is preparing, will raise the consciousness of librarians to the important responsibility, and, hopefully, will inspire others to evaluate and improve their library disaster preparedness.

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Transforming a Regional Medical Library Program

Claire Hamasu, associate director, National Network of Libraries of Medicine MidContinental Region, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City; **Elizabeth Kelly**, associate director, Bernard Becker Medical Library, Washington University, St Louis, MO; and **Wayne J. Peay, FMLA**, director, Spencer S. Eccles Health Sciences Library, FMLA, University of Utah–Salt Lake City

Objective: Centralized decision making is not always the most effective organizational structure to provide services. Empowering personnel to address issues at a state and project level can enhance a regional program's responsiveness. This paper explores how examining the environment and thinking creatively can transform an organization.

Methods: A review of the library environment indicated that there were strong partners (libraries) in the region who were willing to take on more responsibility for a new model to implement regional services to support health information access. One of the library directors designed an organizational structure that would incorporate the partners' first-hand knowledge of their states, project expertise, and relationships with the constituency into program planning and would empower the libraries to make decisions about carrying out programs. To meet program

goals, partner libraries agreed to support local staff to provide regional services, cooperate in testing new technologies, and incorporate the technologies into daily processes. Using outcome-based planning as its model, the staffs make both shared and decentralized decisions and respond to local, state, and regional needs to design and carry out effective programs.

Results: Resource libraries are invested in carrying out Regional Medical Library (RML) goals and contribute the strengths of their institutions (expertise, infrastructure, contacts, and funding) to the RML program. By reviewing (and sometimes rewriting) institutional goals as they relate to RML goals, libraries have effectively used the liaison to represent both their institution and the RML. Use of technology in the daily processes provide regular and effective communication with directors and among liaisons. Outcome-based planning has been essential for personnel to understand and carry out their distributed responsibilities. The plan is charted out in a logic model that provides a basis for discussion and program adjustment when outcomes are not as expected.

Conclusions: Committed partners with resources to contribute, access to appropriate technology, and an outcome based plan transformed this RML program.

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Transforming to Environmentally Responsible Conferences: Planning a Green Meeting

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Objective: Planning an environmentally friendly conference is challenging, better for the environment, and fun. Transforming a regional meeting to include green and sustainable practices is an easy way to start. This poster reports on the efforts of the Midcontinental Chapter of the Medical Library Association (MCMLA) to host an environmentally friendly meeting.

Methods: The process of planning an environmentally responsible meeting is described beginning with the preparation and approval of a green policy statement that outlines meeting priorities and ending with an evaluation of the greening efforts. All elements of a conference can be addressed from the green viewpoint, including hotel, conference facility, lodging, reception location, catering, exhibits, hospitality, program, continuing education courses, transportation, conference promotion, and registration.

Results: MCMLA marketed and hosted a green conference in September 2005 based on this planning process. Support and participation from conference attendees and positive feedback received from the evaluation survey provides evidence that the integration of greening practices was successful.

Conclusions: The MCMLA Green Team developed a template that will serve as a road map for planning future environmentally friendly meetings.

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Running Out of Library Space: Sharing Remote Storage to Increase Cost Savings and Conserve Space

Kathe S. Obrig, associate director, Collections and Access

Services, Himmelfarb Health Sciences Library, George Washington University, Washington, DC; **Vani K. Murthy**, technical services manager, Montgomery College Libraries, Montgomery College Libraries, Rockville, MD; **Tracie E. Frederick**, assistant director, Education Services, Dahlgren Memorial Library, Georgetown University, Washington, DC; and **George W. Paul**, head, Collection Management, and **Leah C. Pellegrino**, head, Cataloging and Reserves, Himmelfarb Health Sciences Library, George Washington University, Washington, DC

Objective: This poster will report on a cooperative project between two urban academic health sciences libraries to relocate pre-1980 bound journal volumes in a local consortium remote-storage facility. The agreement was designed to eliminate duplication of identical journal titles to conserve space and provide cost savings to both libraries.

Methods: Initially, the two libraries negotiated a memorandum of understanding covering cost-sharing, statistics, and other terms of the agreement. The staffs of both libraries then met to determine the implementation details. The volumes of one library were physically shipped to storage, and the second library was then billed for the titles held in common. Both libraries also shipped unique titles held by their institution. Cataloging was done by the consortium staff.

Results: A total of 11,836 volumes were sent to storage from Himmelfarb Library's collection; 6,636 of these were held jointly by both libraries. This project freed up valuable space in both libraries, which was then reconfigured to meet the demands of changing technologies. Less space was utilized at the consortium facility, which was already experiencing space shortages. Significant cost savings were realized by both libraries. Libraries working together to send off only one copy of duplicate journal holdings to an offsite storage facility results in space savings and is an effective way to promote interlibrary cooperation.

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Transforming Physicians into Informationists: A Dual-degree Pathway to Developing Medical Information Specialists

Patricia L. Thibodeau, AHIP, associate dean, Library Services and Archives, Medical Center Library, Duke University, Durham, NC; **Peggy Schaeffer**, project coordinator, School of Information and Library Science, University of North Carolina—Chapel Hill; and **Robert James**, associate director, Public Services, Medical Center Library, Duke University, Durham, NC

Objective: The concept of the informationist, or medical information specialist, calls for blending the knowledge and skills of the clinician with those of the librarian and information specialist. One possible pathway is to train physicians in library and information sciences. Medical schools that support dual-degree tracks provide an opportunity for medical students to pursue a degree in library and information science.

Methods: Through a collaborative partnership with the local University of North Carolina School of Library and Information Science, the Duke University School of Medicine is able to provide a dual-degree program for creating medical information specialists. A key component is the recruitment process, including effective marketing materials and description of possible career pathways for those who choose to pursue a library or information science degree. A federal grant from the Institute of

Museum and Library Services, part of the Librarians for the 21st Century program, supports the initial cohorts of students and the evaluation of the program and its outcomes. If successful, the program could also become a model for other medical schools that support dual-degree programs.

Results: Project staff will share progress to date, including obstacles encountered, recruitment and marketing efforts employed, feedback received, and plans for evaluating the model. The format and requirements of the third-year medical school program, as well as the degree components, will be described. The preliminary findings of a survey on information-focused career paths will be presented.

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“Oh, No! They Want to Have the Conference Here!”: The Similarities and Differences of Hosting MLA and Chapter Annual Conferences

Janna C. Lawrence, AHIP, reference and instructional services coordinator, and **Jonquil D. Feldman, AHIP**, liaison program librarian, Briscoe Library, University of Texas Health Science Center–San Antonio

Objective: This poster will outline the responsibilities associated with hosting chapter and national conferences and explore the differences and the similarities in the arrangements.

Methods: San Antonio is a popular convention city; however, it has a relatively small health sciences library community. Area health sciences librarians are affiliated with just a few institutions, including a medium-to-large academic health sciences center library, several military medical libraries, a handful of hospital libraries, and some small special libraries. In the last fifteen years, San Antonio librarians have hosted two South Central Chapter (SCC) annual conferences and two Medical Library Association (MLA) annual meetings. Many of the same librarians have worked on all four meetings.

Results: The popular myth is that hosting MLA is just like hosting a chapter meeting on a much larger scale. The reality is that MLA headquarters staff handle most financial decisions and perform the more time-consuming and detail-riddled tasks, such as contract negotiations with hotels, conference centers, and entertainment venues, leaving the Local Assistance Committee (LAC) to concentrate on publicity and hospitality. The LAC is aptly named because it is responsible for arranging every aspect of the meeting. The LAC bears the responsibility to inform, educate, house, entertain, feed, enable networking, maintain a balanced budget and, no matter what, be a charming host.

Conclusion: Although the MLA annual meeting is much larger and more intimidating, our experience is that hosting MLA is actually less local work than hosting a chapter meeting.

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Bidirectional Transformation: New and Experienced Librarians Coming Together to Effect Change in the Profession

Becky Hebert, specific populations outreach coordinator, National Network of Libraries of Medicine Southeastern Atlantic Region, University of Maryland, Baltimore, MD; **Brittany Horn**, reference and clinical librarian, Library, Eastern Virginia Medical School–Norfolk; and **Jane Blumenthal, AHIP**, assistant dean, Knowledge Management, and director, Dahlgren Memorial Library, Georgetown University Medical Center, Washington, DC

Purpose: This paper will discuss factors identified by survey respondents that may contribute to the creation of barriers to new librarians' workplace satisfaction and career success as well as how 21st century librarians can successfully implement the changes necessary to solve the problems arising from these barriers.

Setting/Subjects: One thousand fifty-five librarians, staff, and library science students responded to the survey about issues facing new librarians, possible solutions to the issues, and ways MLA, employers, and individuals influence change on issues with job satisfaction, wages, professional acceptance, experience, continuing education, and others. Results were explored in a panel discussion and audience brainstorming session.

Methodology: The electronic survey link was posted to several library-related email discussion lists. Results of the survey, including answers to several open-ended questions, were presented before a discussion panel at an MLA chapter meeting. The panel addressed the identified issues in an engaging talk show format with conversation among the panelists and audience participation. Points of discussion, including suggestions for developing mentorships and participating in professional organizations, were recorded. The authors will organize the intriguing results and share them to evoke positive growth and change in the profession.

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A Catalyst for Technological Transformation: The Library's Role in Instructional Technology

James Brucker, instructional design librarian; **Stephanie Kerns**, head, Education and Outreach, and curriculum librarian; **Linda Walton**, associate director; and **James Shedlock, AHIP**, director; Galter Health Sciences Library, Northwestern University, Chicago, IL

Objective: As education has been dramatically transformed by the integration of technology into the classroom and course work, this medium-sized academic health sciences library wanted to identify any gaps in the instructional technology needs of the medical school faculty. The library then formulated a dedicated, project-driven response to these needs grounded in services, individual support, and curriculum integration.

Methods: Several faculty members initially and independently approached the library with specific project goals and instructional technology problems, simply asking for advice or the possibility that the library might be able to guide them to the right resources. The library subsequently consulted these faculty members, identifying an unfilled gap in the faculty-support structure of the medical school. Technological proficiencies were identified, based on the library's own experience in developing online, asynchronous, interactive tutorials. These proficiencies were then examined for their compatibility with the current instructional technology systems available to the faculty, particularly, the Blackboard Course Management System. The proficiencies were combined to create a new professional position at the library: instructional design librarian. The instructional design librarian consults with faculty to explore technological solutions to their pedagogical needs, defining and focusing goals, and ultimately implementing library-based, technology-driven solutions.

Results: The instructional design librarian met independently with several faculty members for individual consultations, with

initial publicity being conducted through word of mouth. Some short-term projects were quickly finished. A long-term project was identified, and a team of education librarians, including the instructional design librarian, was assembled to work through the creation of a comprehensive online tutorial and assessment system. Some of the potential project-specific details of the instructional design process still need to be worked through, particularly regarding library server space and the hosting and maintenance of future projects. After publicizing the new service through the library's quarterly newsletter, other faculty members approached the instructional design librarian with ideas for projects and other technology concerns. A limiting schedule may be needed to determine the amount of long-term and short-term projects that can be taken on simultaneously in an academic year, as the implementation of the new service was a success.

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Supporting Bioinformatics Research at Health Sciences Libraries

Inhye Kim Son, AHIP, electronic services and research librarian, Claude Moore Health Sciences Library, University of Virginia—Charlottesville

Objective: This poster will present the ongoing efforts by the library to support bioinformatics research and the effectiveness of the efforts.

Methods: Research in bioinformatics has become one of the key areas in health sciences and medical fields. To support bioinformatics researchers in the institution, a librarian is assigned to seven research departments as research liaison. The activities of the liaison librarian that support departmental research include:

- collaborating with other department in the institution and referring in-depth questions to resident scientist in the center
- offering a series of classes as a bioinformatics series once or twice a year;
- instructors are the research liaison librarian and the scientist in the center
- hosting the National Center for Biotechnology Information (NCBI) field guide about every eighteen months
- presenting onsite or departmental demonstrations.

In the poster, we will present each activity in detail, and the feedback from the researchers on the effectiveness of the work of the library on their research productivity. We will also survey and present other libraries' activities and programs that support bioinformatics research in the institutions.

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The Changing Face of Work: Flextime and Flexplace

Valerie St. Pierre Gordon, AHIP, head, Cataloging, and staff development officer, and **Susan C. Corbett, AHIP**, systems development librarian, Lister Hill Library of the Health Sciences, University of Alabama—Birmingham

Objective: To describe how faculty and staff in academic health sciences libraries use flexible scheduling and telecommuting in their workplace and to document some of the perceived benefits and drawbacks to these arrangements.

Methods: Descriptive survey to provide information about the opportunities for and prevalence of flexible scheduling and telecommuting in academic health sciences libraries. Examples of flexible scheduling include flextime, compressed work schedules,

part-time employment, nine-month appointments, and job sharing. Categories of telecommuting include full or part-time telecommuting, regularly scheduled or occasional telecommuting, and local or long-distance telecommuting. Perceived benefits of these arrangements include recruiting and retaining good staff, reducing absenteeism, increasing productivity, improving morale, engendering loyalty, and demonstrating trust. Some of the perceived drawbacks include limited contact with colleagues, reduced sense of connection with the larger organization, lack of visibility and negative impact on promotion, and lack of distinction between work time and off time. The survey will also provide information on the types of library positions that are more or less likely to allow flexible scheduling and telecommuting.

Results: Forty-nine academic health sciences libraries responded to the institutional survey on flexible scheduling, working remotely, and telecommuting. The most prevalent forms of alternative work arrangement allowed were flextime (36 libraries), working remotely (35), and part-time employment (20). The least prevalent were compressed work week (18 libraries), telecommuting (15), job sharing (5), and 9-month appointments (2). Work/life balance, family care, and focus on projects without interruption were the most cited reasons for choosing these arrangements. Increased employee satisfaction was the greatest benefit for all 3 arrangements, with difficulty scheduling meetings listed as the greatest drawback. Those libraries that did not allow these arrangements cited institutional restrictions, lack of staff interest, or coverage issues as the primary reasons. A separate survey polled library staff members who participated in these arrangements or worked with others that did. The 106 responses received from this survey supported and augmented the results of the institutional survey.

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The Purrfect Transformation

Ana G. Ugaz, resources management librarian; **Taryn Resnick**, resources management librarian; and **Nancy G. Burford**, assistant professor; Medical Sciences Library, Texas A&M University—College Station

Objective: To describe the issues associated with the addition of a cat to a technical services department and the positive changes that resulted.

Methods: Substantial evidence indicated a mouse infestation problem in our library offices and technical services department. While other options may have been available, it seemed an excellent opportunity for the library to adopt a cat to act as a pest control officer. Extensive research found no university regulations that prohibited keeping a pet in the building. Other libraries have kept cats on their premises with great success; their locations are documented on a Website (www.ironfrog.com/catsmap.html) listing names and addresses of past and current library cats. All affected librarians and staff were consulted to determine if there were allergies or other objections before a cat was brought in. The cat has been in residence for nine months, and transformations during that time will be presented in the poster.

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Placing Limits on Assistance: Virtual Reference Services in Academic Health Sciences Libraries

Jodi L. Philbrick, adjunct faculty and doctoral candidate, and **Ana D. Cleveland, AHIP**, professor and director, Health Informatics Program, School of Library and Information Sciences, University of North Texas–Denton

Objective: The objectives of this study are:

1. to identify how many academic health sciences libraries offer some form of virtual reference services for their users
2. to determine how many academic health sciences libraries place limits on the types of questions they will answer via virtual reference
3. to find out the types of limitations the academic health sciences libraries place on the questions they will answer via virtual reference services

Study Population: Websites of academic health sciences libraries represented in the Membership Directory of the Association of Academic Health Sciences Libraries (www.aahsl.org/new/about/directory.cfm).

Methods: The researchers will:

1. examine the Websites of the libraries identified above to determine how many offer some form of virtual reference services
2. study the Website of the libraries to identify how many place limits on the types of questions they will answer via virtual reference services
3. examine the Websites of the libraries to find out what types of limitations the libraries place on the questions they will answer via virtual reference services

Results: Of the 136 libraries represented in the AAHSL Membership Directory, 124 libraries (91%) offer some form of virtual reference services to their users and 53 (43%) of those libraries place limitations on the types of questions they will answer via those services. The 2 most common types of limitations placed on questions posed via virtual reference services are: (1) requesting brief, fact-based, or ready reference questions (43%) and (2) providing a list of acceptable types of questions that can be asked (30%). Understandably, 21% of libraries that place limitations on virtual reference services state that they will not provide medical advice via virtual reference services.

Conclusion: The majority of academic health sciences libraries are providing some form of virtual reference services. Less than half of these libraries place limitations on the types of questions they will answer via these services.

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Has the Internet Improved Medical Student Information Literacy Skills? A Retrospective Case Study: 1995–2005

Daniel G. Kipnis, education services librarian, and **Anthony J. Frisby**, director, Education Services, Academic and Instructional Support and Resources, Scott Memorial Library, Thomas Jefferson University, Philadelphia, PA

Objective: Our goal in this investigation was to see if the popularity of the Internet has had an effect on searching skills and an increased awareness of where to search for appropriate medical information.

Methods: First-year medical students from Jefferson Medical

College were asked to complete a pretest at the start of semester. Once the course began, students were required to complete a series of tutorials about various medical information systems including the Scott Memorial Library, MEDLINE, MICROMEDEX, and other resources. In addition, the students had to attend a mandatory hands-on workshop, complete three online case studies, and a posttest. The case studies prompt the students to demonstrate proficiency in using the medical information resources and serve as a self-assessment tool for them to evaluate their skills using the medical information systems. Our research question is: have freshmen medical students' information searching skills improved in the past decade. We will answer this question by comparing the pretest scores from students' in this year's class with those from 1995. **Results:** Comparing the pretest means of both groups (1995 vs. 2005) indicates a significant difference ($t = 17.80$ $P > 0.0001$) exists, and these results are not likely to have happened by chance alone. Similar t -test evaluations confirm a significant difference between pretest and posttest events (1995: $t = 35.80$ $P > 0.0001$; 2005: $t = 10.31$ $P > 0.0001$).

Conclusions: Student means on the pretest have improved. Unfortunately, the scores are still low considering how proficient students claim to be on finding information. Medical students seem to be transferring their confident Web skills to searching the medical literature. The data support that they are not adapting to searching knowledge-based resources in comparison to online resources they are accustomed to using on a daily basis, such as Google, etc. Internet searching proficiency alone has not improved medical students' medical information literacy skills. Medical students are slowly realizing how different medical research can be compared to their daily online research.

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Implementing a Networked Scanner/Photocopier in a Hospital Setting: Does It Improve Workflow and Service Delivery?

Susan Cordaro, coordinator; **Sally A. Harvey, AHIP**, director; and **Lora Robbins, AHIP**, librarian; Merril W. Brown Health Sciences Library, Banner Good Samaritan Medical Center, Phoenix, AZ

Objective: To demonstrate whether the implementation of a networked scanner/photocopier in the Brown Health Sciences Library at Banner Good Samaritan Medical Center (BGSMC) will improve workflow and service delivery in the provision of document delivery services.

Methods: Banner Good Samaritan Medical Center is part of Banner Health, which spans 7 states and has 20 facilities. The Brown Health Sciences Library at BGSMC serves a large, inner-city teaching hospital with 659 licensed beds and 220 residents each year. Document delivery services at BGSMC Library have included the option of electronic delivery via scanned copies from a desktop scanner for over two years. This has been a popular service with both internal Banner clients and external DOCLINE clients. Staff has surmised that the addition of a networked scanner on the photocopier machine will speed and improve this service. A time and motion study comparing work processes and time spent before implementation of a scanner/photocopier and after its implementation is described. Barriers to the implementation of this process and the possible benefits for library staff and clients are also discussed.

Results: The data obtained from the time and motion study have shown that the utilization of the photocopier/scanner has improved both productivity and copy quality. The scanner is proving to be a valuable new tool for enhanced service.

Conclusions: The BGSMC Library staff believes this new photocopier scanner will continue to provide significant improvement of interlibrary loan services and will make delivery of documents to library users more efficient. Despite implementation barriers, this is a valuable asset to the library and is worth considering for any library that offers document delivery services.

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Transforming Data into Knowledge for Decision Making: Putting MS Access and Excel to Work for You

Joan Marcotte Gregory, AHIP, librarian, Technical Services; **Alice I. Weber**, acquisitions librarian; **Allyson Mower**, reference associate; and **Julie Quilter**, reference associate, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

Objective: Libraries gather data on many aspects of their services. But often these data are segregated in various tools. Four uses of MS Access and Excel are described: managing journal subscription cancellation decisions, analyzing interlibrary loan (ILL) transactions, streamlining personnel data management, and sharing the knowledge learned by teaching MS Access and Excel classes. This poster demonstrates how the Spencer S. Eccles Health Sciences Library at the University of Utah has harnessed data in disparate tools and brought these data together for decision making and teaching.

Methods: Managing journal subscription cancellation decisions requires gathering data from multiple sources including vendors, publishers, the integrated library system, and the ILL system. Data are provided in a variety of formats that are not always comparable. MS Excel is used to view the data and create crosswalks (e.g., ISSN to Bib Number). MS Access brings all these data together for analysis of cost per use, percentage of increase, ILL costs, etc. ILL transactions are monitored using an MS Access ODBC connection to the library's ILL system. Queries identify copyright status of journal titles, deposit account thresholds reached, taxes, etc. Data on cost per ILL for titles being considered for purchase are also extracted.

Results: Experience gained in analyzing data for journal subscription cancellation decisions and ILL transaction monitoring has increased not only our knowledge of library resource use but has served as a foundation for exploring new uses of MS Access and Excel. Personnel data previously maintained in multiple MS Excel spreadsheets are now being consolidated using MS Access. Using this database, we will produce varied reports and run complex queries to streamline data management. Our newfound expertise has led us to develop classes on MS Access and Excel, which have been requested by patrons. Classes are now taught monthly and advertised via the library's newsletter and class registration Website.

Conclusion: From analyzing journal subscription cancellations to teaching classes, the Spencer S. Eccles Health Sciences Library is using MS Access and Excel to successfully transform data into knowledge for library and patron decision making.

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Evidence-based Nursing Terminology: Does It Differ from Evidence-based Medicine?

Patricia McNary, electronic services and reference librarian, Health Sciences Library, Massachusetts College of Pharmacy and Health Sciences–Boston, and **Mary Krieger**, reference librarian, Health Sciences Center Library, Saint Louis University, St. Louis, MO

Objective: While evidence-based nursing (EBN) and evidence-based medicine (EBM) both use similar terminology in their filters, EBN also encompasses other methodologies in its search for scientific data on which to base quality nursing practice. This poster will point out some of the difference and similarities between terminology used by the two professions and the differences in the focus of their research.

Methods: Our poster will include information we obtain from the current health sciences literature, nursing schools, and interviews with leaders in the nursing profession. We will review existing filters for capturing EBN literature (e.g., the ones developed by Nesbit for the CINAHL database) and we will examine the potential difficulties in indexing and retrieving qualitative studies that are so prevalent in nursing research.

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Assessing the Value of EMBASE

Cindy L. Sheffield, education librarian, Welch Medical Library, and **Karen A. Robinson**, research associate, Department of Internal Medicine, Johns Hopkins Medical Institutions, Baltimore, MD

Objective: To demonstrate the unique contributions of EMBASE.

Methods: Health information professionals often advocate the use of EMBASE to ensure a comprehensive literature search. However, when it comes to purchasing this database, librarians often need to consider the unique contributions from this source and frequency of its use by health professionals. This poster will assess the unique value of EMBASE in several systematic reviews. It will also provide a case study demonstrating the differences between Medical Subject Headings (MeSH) and Emtree vocabularies and their impact on result sets to a specific clinical question. A synthesis of the literature on this topic will be presented, providing health sciences libraries, large or small, academic or hospital, a perspective on the value that EMBASE may have at their institution. Finally, a model for further investigation on this topic will also be suggested.

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Planning Efforts to Conduct a Randomized Clinical Trial to Evaluate the Impact of an Information Prescription Service

Laurie W. Davidson, clinical librarian, Welch Medical Library, Johns Hopkins University, Baltimore, MD; **Susan E. Rohner**, assistant director, Onondaga Free Library, Syracuse, NY; and **Holly A. Willis**, library director, McGlannan Health Sciences Library, Mercy Medical Center, Baltimore, MD

Purpose: This poster illustrates health sciences librarians' planning efforts to conduct a randomized clinical trial (RCT) that aims to compare and measure the impact of information prescription services (IRx) versus routine health information

provision on patients, providers, and the health care system.

Settings: Study participants are breast cancer patients, new to a medical oncology clinic, who receive standard-of-care information from their providers. Patients, who have been randomized to the intervention group, are eligible to receive IRx services. These services include consultation with a librarian during their clinic visit to receive information related to their diagnoses and treatments. Following the initial consult, librarian services are available for four weeks via email, mail, telephone, or in-person at the clinic.

Description: The librarians' planning efforts consisted of numerous professional development activities. Training included courses on human subjects research, the Health Insurance Portability and Accountability Act (HIPAA), electronic patient records, oncology clinical information systems, and MLA consumer health information specialization (CHIS) certification. Librarians engaged in educational efforts to increase their knowledge of breast cancer. Particular attention was given to identifying the information needs and understanding psychosocial issues experienced by breast cancer patients. In addition, librarians collaborated with the research team, clinical team, information technology (IT), patient educators, and breast cancer survivors.

Evaluation: A ten-patient pilot was conducted to assess project processes. Feedback from patients and providers was overall positive. Rapid enrollment rates and patient comments suggest a high level of interest in IRx. The pilot experience verified that librarians' planning efforts were essential and critical. Areas for improvement were identified and addressed. As a result, librarians established clinical research procedures and methods for providing IRx. The RCT commenced in fall 2005.

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Modeling the Phoenix: From Disasters Past Toward a Future Prepared

Kathel Dunn, associate director, Public Services, Ehrman Medical Library, New York University School of Medicine—New York; **Marcus A. Banks, AHIP**, Reference librarian, Nathan Cummings Library, Memorial Sloan-Kettering Cancer Center, New York, NY; **Patricia Tomasulo, AHIP**, coordinator, Information Resources and User Services, and **Richard Faraino, AHIP**, education librarian, Ehrman Medical Library; and **Lewis Nelson**, assistant professor, Department of Emergency Medicine; New York University School of Medicine—New York.

Objective: The Large Scale Emergency Readiness project (LaSER) project, sponsored by the Center for Catastrophe Preparedness and Response at a large research university, simulates urban catastrophes using mathematical models. The models will improve preparedness and response capabilities in urban areas. An in-depth literature search served as the basis for developing models designed by the university's public health, science, and mathematics faculty.

Methods: A team of three health sciences librarian and an informationist conducted in-depth literature searches to locate information on three terrorist or terrorist-like disasters. The disasters were the methylisocyanate release in Bhopal, India, December 3, 1984; the subway release of sarin in Tokyo, March 20, 1995; and the destruction of the World Trade Center, New York City, September 11, 2001. Information needs were wide-ranging including: nature of the event, prevailing conditions

and geographical issues, rescue response, communication, transportation, public response and an analysis of any previous simulations on the disasters. In conjunction with LaSER researchers, the information team determined a literature hierarchy of peer-reviewed journal articles, government reports, books, and newspaper articles. Iterative search techniques were employed, and the librarian researchers met periodically to discuss results and identify emerging themes.

Results: Using data provided from the library's literature searches, the research team has begun to develop mathematical models of the medical effects of 3 distinct events: chemical, biological, and radiological attacks. The models will simulate an attack on New York City, at first on 10,000 affected individuals and eventually about 1 million individuals. The research team is using the data to educate the model to approximate both individual and mass behavior during and subsequent to an initial attack. The model will allow researchers to follow, in small scale, the effects of initial mortality and then the choices made as people either use or do not use health care centers. Model development is iterative, with steadily more sophisticated parameters. As the model matures, the research team continues to rely on library expertise for generating appropriate data points. This project has expanded the concept of a literature search to include literature analysis and synthesis.

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Do We Really Need All of these Computers? Moving Beyond Observational Analysis for Gathering Statistics of Public Computer Usage

Michelle Frisque, head, Information Systems; **Jeremy Prevost**, technical support consultant; and **Kurt Munson**, head, Client Services; Galter Health Sciences Library, Northwestern University, Chicago, IL

Objective: To better respond to our users' changing needs and to report usage data to medical school administration, the library determined it needed to move beyond observational analysis to statistics gather. The library purchased the K2 software to measure public computer usage, determine where computers should be placed in the library, and ascertain which software programs are being used and how often.

Setting: A medium-sized academic health sciences library that provides access to all of the public computers for the medical school.

Methods: In the spring of 2005, the library's public computers were replaced. In the past, computer usage statistics were gathered using the observational model. In 2004, the library began planning for the public computer upgrade, and it was decided we needed more scientific data about the use of our public computers. The K2 software enabled us to analyze data and create actionable reports that are used in the library and shared with medical school administration. This poster will share the results of the data we have gathered since the software was deployed in the spring of 2005.

Results: The K2 software has allowed us to gather data on public computer usage. The software includes canned reports that can be run from the management console. However, the majority of the reports we use are ones we created locally. The customized reports are generated by selecting the appropriate data from the K2 database using SQL queries and then importing that data into Excel. Reports we created include how many computers are

in use every ten minutes in each area of the library, on average how many are in use throughout the day, how many times we hit peak usage, what software is being used and how often, etc. We do not use the software to track who is using the software or the computers. As we continue to review the reports we generate, we are coming up with new ways to analyze and manipulate the data.

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Continental Bias in North American and European Dental Research Journals

Ron Leehacharoenkul, teaching assistant, School of Dentistry, University of North Carolina–Chapel Hill; **Stephen C. Bayne**, professor, School of Dentistry, University of Michigan–Ann Arbor; **James D. Bader**, research professor, School of Dentistry, and **Kathleen A. McGraw**, information services coordinator, Health Sciences Library, University of North Carolina–Chapel Hill

Objective: A pilot study of research articles published in two journals (*J Dent Res*, *Eur J Oral Sci*) during 2002 found authors cited references from first authors on the same continent more frequently ($P < 0.0001$) [Leehacharoenkul et al., *JDR* 2005: Abstr 3120]. A thorough study of eight journals for two years has been conducted to (1) determine if research “article-first-authors” (afa) cited “reference-first-authors” (rfa) with differing frequencies within geographic affiliations and (2) pool journals to detect geographic influences between journals published in North America (*J Dent Res*, *J Prosthet Dent*, *Oper Dent*, *Am J Dent*) and Europe (*Eur J Oral Sci*, *Dent Mater*, *Caries Res*, *J Dent*) on these patterns.

Methods: Research articles ($N = 653$) and their references in eight journals published during two years (1998, 2002) were classified (using ISI and PubMed databases) by first-author geographic affiliation (North America [NA], Europe [EU], Oceania [OC= SE Asia], or other). Each article’s contribution (afa) was weighted equally (% rfa).

Results: Results for both years (1998, 2002) were almost identical. NA and EU authors (both afa and rfa) clearly dominated. Journal articles from NA [NA-NA (rfa = 1,912) vs EU-EU (rfa = 986), $P < 0.01$] and EU [NA-NA (rfa = 348) vs EU-EU (rfa = 1,787), $P = 0.06$] cited reference-first-authors from their own continent-of-origin more frequently. Pooled journals for NA versus EU showed geographic trends toward bias.

Discussion: Geographic bias may affect reader impressions of the pertinent literature and distort key citation indexes such as scientific impact factors.

Conclusion: Results strongly suggest that strength and relevance are not the only determinants of reference selection and that there is continental bias in citing references.

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An Examination of Joint Electronic Reference Service: Has the Time Come for a Health Sciences Virtual Reference Service Consortium?

Barbara A. Wright, AHIP, reference services librarian; **Robert E. Johnson**, education services librarian; **Irene Lubker**, research librarian; **Aparna Sharma**, education coordinator; **Catharine S. Canevari**, head, Education and User Services; Tompkins-McCaw Library for the Health Sciences; **Marilyn J. Scott**, electronic user services librarian, James Branch Cabell Library; Virginia Commonwealth University–Richmond; and, **Megan**

S. Nunemaker, astronomy librarian, NRAO Library, National Radio Astronomy Observatory, Charlottesville, VA

Objective: Our institution joined a consortium-based virtual reference service (VRS) to expand the number of electronic reference hours provided to library users. Our library was the only health sciences library participating in the VRS. We will examine the usage data to identify elements of a successful VRS consortium and evaluate the e-reference service provided by our consortium-based VRS.

Methods: Virtual chat usage data during the period of 2001–2006 will be examined. Data from when we offered this service independently will be compared to data during our participation in the consortium-based VRS. Question responses from our library will be compared to responses from non-health sciences libraries. Questions will be categorized by type including health sciences/non-health sciences. Elements that will be described include the software used, costs, administration, and staffing. Chat statistics outlined include the number and type of questions asked and answered, the number of e-reference service hours provided per week, the number of contributed staff hours, peak usage hours by day of the week, and if/how the questions were answered. The impact of our library being the consortium’s sole health sciences library will be considered. Data will be gathered and modeled using Excel.

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New Visions: *Charting the Future with Web Design*

Katherine Prentice, Web services librarian, and **Mary Moore**, director, Libraries, Briscoe Library, University of Texas Health Science Center–San Antonio, and **Randolph Bias**, associate professor, School of Information, University of Texas–Austin

Objective: One of the most visible representations of any library is its Web page. Our library is using client-centered Web design to help reinvent itself for knowledge management, as described by the Association of Academic Health Sciences Libraries’ (AAHSL’s) *Charting the Future*.

Methods: Through a multifaceted approach to Web design and using the principles of knowledge management, we are redesigning our library Website as a symbol of this new vision of our library. Employing the client-centered design approach, we are using focus groups, surveys, observational studies and usability testing to determine how to create a Website that fulfills the vision of knowledge management and meets community information needs. A usability engineer was consulted in applying these methods and analyzing the results.

Results: Focus group and survey complete, other results to be determined.

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Evidence Matters (EM): The North American Experience: A New Research Transfer Technology

Ofer A. Avital, founder and chief executive officer, Evidence Matters, Montreal, QC Canada

Objective: Stakeholders need help managing the flood of new research evidence. A new technology was evaluated that allows users to create instant evidence-based literature reviews for a custom question on therapeutics, instead of using pre-synthesized reviews (e.g., Cochrane).

Methods: Anonymous online questionnaires were completed by over 20 information specialists at major academic and treatment

centres across North America, representing over 50,000 end-users. Questions were designed to rate the online database and synthesis tool on a 5-point Likert scale, using dimensions including utility, uniqueness, and user-friendliness.

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Scaling Evidence-based Services Through Integration with Informatics Tools

Rebecca N. Jerome, fellow, Department of Biomedical Informatics and Eskin Biomedical Library; **Molly Cahall**, coordinator, Outpatient Clinical Informatics Consult Service; **Shannon Potter**, librarian; **Pauline Todd**, coordinator, Staff Development; **Annette M. Williams**, associate director; Eskin Biomedical Library; and **Nunzia B. Giuse, AHIP, FMLA**, director and professor, Eskin Biomedical Library and Departments of Biomedical Informatics and Medicine; Vanderbilt University Medical Center, Nashville, TN

Objective: This paper describes the scalability of the library's mature model for clinical evidence support through integration with the institution's electronic medical record (EMR) system, focusing on key lessons learned and initial evaluation data regarding increased library visibility and evidence incorporation at the point of care.

Setting/Participants/Resources: Successful clinical evidence service facilitating information integration into a large academic medical center's practices through librarian provision of customized, patient-specific literature syntheses for clinicians.

Brief Description: The library's initial clinical services model integrated librarians into in-patient rounds. Dissemination of the EMR across the medical center in both the inpatient and

outpatient arenas has recently enabled a gradual transition from reliance on librarians' attendance on rounds to ubiquitous presence via the EMR. Using the EMR's messaging feature, clinicians query librarians as patient-related questions arise. Adhering to stringent confidentiality practices, librarians utilize details of the patient case prompting each clinical question to inform effective customization of literature syntheses. To facilitate adoption among teams, the library augments this virtual presence through several communication strategies, including periodic clinic visits and team-specific evidence newsletters. **Results/Outcome:** This EBM Literature Request service has been scaled to four clinical groups, with plans to continue to expand this service to additional teams in the medical center. Librarians have received 143 questions from physicians via the EMR through February 2006. Librarian feedback indicates that access to patient data (e.g., medical history, medication list, lab results) through the EMR has proved essential in selecting relevant information for these clinical questions. Additionally, preliminary focus group feedback indicates that clinicians feel the service integrates well in their workflow.

Evaluation Method: Initial data gathered from clinicians through informal feedback mechanisms and formal surveys indicates that this service provides relevant information and is facilitating changes in clinical practice and education. The monthly team-specific Evidence Alert newsletters, briefly summarizing recent team questions and key clinical studies and guidelines, have also been well received by the collaborating groups.

Supported in part by NLM grant 5 R01 LM07849.