



Connections: Bridging the Gaps

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MEDICAL LIBRARY ASSOCIATION • [www.mlanet.org](http://www.mlanet.org)

A Supplement to the Official Program

## MLA '08 ABSTRACTS

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2008 National Program Committee

**Forging Connections to Emerging Research**

*Columbus K and L*

4:35 p.m.

**The Librarian Emergency Responder: Summary Conclusions from the Oral History Project, *Answering the Call: Library Roles in Disasters***

**Robin Featherstone**, Associate, National Library of Medicine, Bethesda, MD

**Objective:** To determine specific roles that librarians play in disaster planning, response, and recovery.

**Methods:** The investigator recorded the stories of librarians who had responded to a wide range of disaster and emergency situations, such as hurricanes, epidemic outbreaks, and terrorist attacks. Twenty-three participants from across North America shared their experiences of working with evacuees, emergency responders, volunteers, and government agencies. Analysis of the stories yielded eight broad categories, which summarize contributions librarians can make to disaster response efforts.

**Conclusions:** Careful examination and cross comparison of the stories revealed eight categories of librarian response activities: building and supporting the library community; educating and training; partnering with government agencies, departments, centers, and military personnel; providing community support; managing internal library operations; sharing information; managing collections; and supporting their institutions. Librarian skills naturally lend themselves to disaster scenarios in which accurate information is needed in a short time frame. Summary conclusions from the oral history project strengthen a case for librarian involvement in federal, state, and local disaster response activities.

5:00 p.m.

**Health Sciences Libraries' Synergistic Partnerships**

**Jean Song**, Informationist; **Gillian Mayman**, Public Health Librarian; **Jane Blumenthal**, AHIP, Director; Health Sciences Library, University of Michigan–Ann Arbor

**Objective:** To demonstrate how partnerships between health sciences libraries and life science research organizations have created value-added outcomes for both parties.

**Methods:** The health sciences libraries collaborated with the university's biomedical informatics unit to create an informationist position who contributed to research outcomes through projects such as citation analysis, intellectual property management, and usability studies. Additionally, a cross-disciplinary interest group of librarians (engineering/computer science, biology, and human genetics) led by the health sciences library was created and developed an instructional program for life sciences researchers. The health sciences libraries also contributed to the community outreach efforts of the Clinical and Translational Science Award consortium with several projects such as teaming up with local public health de-

partments to develop best practices for integrating Web 2.0 technologies into public health professionals' work practices. How these collaborative successes increased the quality and breadth of research support will be assessed through user satisfaction surveys.

5:25 p.m.

**Seven-year Tune Up: How One Library Reinvigorated Their Single Service Desk**

**Susan McGuinness**, Pharmacy Librarian; **Jeff Williams**, Head, Collections and Access Services; **Alice Witkowski**, AHIP, Interim Director; Biomedical Library, University of California–San Diego, La Jolla, CA

**Objective:** Assess the effectiveness of the library's single service desk public service model. Based on this assessment, consider adjustments in staffing (e.g., should librarians continue to work on the service desk, or be on call? Should students work the desk?). Also, establish procedures for providing and updating training, policies, and procedures related to the service desk.

**Methods:** In early 2007, all of the library's public service staff were surveyed to identify the current level of support for and comfort with the library's seven-year-old single service desk public service model, with particular emphasis on the blurring of boundaries between circulation and reference providers. Staff were asked to consider questions related to staffing levels during our core 9 a.m.–5 p.m. public service hours (e.g., Do student assistants provide an acceptable level of public service? Are there periods when a single, nonprofessional level staff person would provide an adequate service level?). This survey also asked each staff person to self identify their level of understanding and comfort with multiple public service activities that ranged from basic information requests (e.g., "show a patron how to find a journal in our online catalog") to complicated circulation processes and advanced reference questions.

**Results:** The survey showed support for continuing with the single service desk model, but staff expressed confusion about specific responsibilities. The survey also showed that public service staff had a high standard for acceptable service, but the confusion about responsibilities prevented consistent delivery of this level of service. There was support from both librarians and support staff for the librarians continuing to work on the service desk. To address the problems identified by the survey, a cross-functional task group was formed to clarify single service desk competencies for librarians and support staff. This task force developed a streamlined set of competencies for librarians and support staff, and recommended a training and orientation program for new and established staff.

**Conclusions:** Based on this, libraries that use the single service desk model should periodically assess how well staff understand their responsibilities, and make adjustments to training to improve service.

5:50 p.m.

**Q & A Session**

Consumer and Patient Health Information Section**The Bridge Is Out: Better Learn How to Swim—Coping with Budget Cuts—Creative Solutions in Lean Times**

**Corporate Information Services, Hospital Libraries, Leadership and Management Sections; Library Marketing SIG**

**Grand Ballroom A**

**4:35 p.m.**

**Efficiencies of Scale and Empowerment: Consumer Health Website Design Using Social Technologies**

**Patricia F. Anderson**, Senior Associate Librarian, Health Sciences Libraries, University of Michigan—Ann Arbor; **Sarah Brittain**, Coordinator, Learning Technologies, Loyola University, Chicago, IL; **Sean R. Meyer**, University Hospitals Web Designer, Oral and Maxillofacial Surgery, University of Michigan—Ann Arbor

**Objective:** To demonstrate cost-effective and efficient collaboration in design, maintenance, and ongoing development of a consumer health website through use of social technologies.

**Methods:** Single author consumer health websites offer control of content but require significant labor by one person. Consumer health websites maintained by a web master offer a division of labor and enable a community or small group to share content but often lack the responsiveness and flexibility of the single author sites. Freely available social technologies such as del.icio.us, blogs, Slideshare, Twitter, wikis, and YouTube empower the best of both, with each member of a trusted group able to contribute and modify content on the site. These technologies offer the added benefit of creating awareness of the information offerings in diverse information environments and extending outreach to a broader range of communities.

**4:55 p.m.**

**Using an In-depth Analysis of Individualized Learning to Best Inform a Library Training Program**

**Molly Cahall**, Coordinator, Outpatient Clinical Informatics Consult Service (OCICS); **Rebecca N. Jerome**, Assistant Director; **Annette M. Williams**, Associate Director, Library Operations; **Nunzia B. Giuse**, AHIP, FMLA, Director; Eskinid Biomedical Library, Vanderbilt University Medical Center, Nashville, TN

**Purpose:** To explore work processes and time management and information organization strategies used by highly efficient clinical librarians. Based on this analysis, investigators will develop a plan for incorporating these strategies into other librarians' workflow to improve efficiency while preserving high-quality results.

**Participants/Setting:** Clinical librarians at a large academic biomedical library providing consult services to physicians practicing in the hospital and outpatient clinics.

**Methods:** A qualitative approach was employed to explore the work processes and strategies used by highly efficient librarians when answering physician requests for evidence from the biomedical literature in response to their complex clinical questions. Methods included: (1) analysis of in-house statistical data for each librarian regarding the number of evidence requests completed and the time spent per request; (2) focus group discussion and one-to-one interviews of work processes, time management, and organization strategies used by clinical librarians with a short response time for completing evidence requests based on in-house data analysis; and (3) analysis of observational data obtained from the focus group and interviews to elucidate pertinent strategies that can be integrated into the primary investigator's workflow and ultimately the library's training program to improve the response times of all clinical librarians.

**Results/Conclusion:** By exploring the time management and information organization strategies used by librarians with a fast response time, it is expected that integration of these strategies in the librarian's workflow will lead to improvements in the primary investigator's personal response time and to the subsequent integration of these strategies into the library's training program to improve the work efficiency of all clinical librarians.

**5:15 p.m.**

**High Tech High Touch: Sharing Staff at a Distance**

**Sharon Dennis**, Technology Coordinator; **Claire Hamasu**, Associate Director, NN/LM MidContinental Region; Spencer S. Eccles Health Sciences Library, University of Utah—Salt Lake City; **Heidi Sandstrom**, Associate Director, NN/LM Pacific Southwest Region, Louise M. Darling Biomedical Library, University of California—Los Angeles

**Objective:** Facing flat or declining budgets, two Regional Medical Libraries (RMLs) examined possibilities for more effectively optimizing the use and talents of personnel between the regions. The MidContinental Region (MCR) and the Pacific Southwest Region (PSR) realized that one region had personnel with strengths that would benefit the other region, so a pilot project to share the technology coordinator position was developed.

**Methods:** Between July 2007 and April 2008, the technology coordinator's time was split between the two RMLs. She continued to work physically at one RML while using technology tools to communicate with the remote RML. The use of online communication tools such as videoconferencing, voice over Internet protocol, and instant messaging allowed "high tech, high touch" relationship building with RML staff and members in the remote region. To ensure that the technology coordinator used time efficiently for both regions, an effort was made to incorporate as much task overlap as possible (e.g., technology classes developed could be offered to both regions). The technology coordinator developed a schedule of tasks for the term of the project that included in-person visits at the remote RML.

**Results:** Remote technologies were successfully used to teach classes and communicate with staff in both regions. PSR staff gradually adapted the technologies but found the lack of a physical presence a more difficult adjustment than MCR staff members, who were already working remotely.

**Conclusions:** The success of the pilot has been significantly driven by the individuals involved. The technology coordinator was experienced with the National Network of Libraries of Medicine program and the associate directors had worked together. The technology coordinator enjoyed the expanded opportunities for interactions with member libraries. For PSR, the major challenge was integration into the University of California-Los Angeles Library organization, and the limited opportunity for “face time.” For MCR, the challenge was identifying the responsibilities that can be reallocated from professional staff to support staff so that the technology project progresses as planned.

5:35 p.m.

### **Are You Marketing or Just Promoting? One Without the Other Is a Wasted Effort**

**Elizabeth Smigielski**, Assistant Director, Kornhauser Health Sciences Library, University of Louisville, Louisville, KY

**Description:** Library marketing—everyone’s doing it, right? Probably not. It is not just making signs and throwing parties. It’s much more than simply promotion. The main focus of marketing is to identify what customers (users) want and to assess the delivery of those services. This involves a cyclical process of analyzing the environment of the market being considered and the goals of the marketing effort, integrating marketing into the larger organizational planning, and considering the “four Ps of marketing”: product, place, price, and promotion. Finally, evaluation of the process completes the cycle and a revised process begins anew. Using examples from successful and failed marketing efforts, this presentation will provide an overview of what marketing is and practical advice on how to do it including avoiding common obstacles and positioning yourself so that your efforts can have sustained effects.

### History of the Health Sciences Section

### **Opening Doors: The African American Connection in Medical Librarianship**

#### **African American Medical Librarians Alliance SIG**

#### **Columbus G and H**

4:35 p.m.

### **Quest for Equality: Opening Librarianship to Librarians of Color**

**Lisa M. Boyd**, Consumer Health Librarian, National Network Office, National Library of Medicine, NIH, Bethesda, MD

**Objective:** Describe the beginning of the legal process for opening librarianship as a profession for African

Americans. Show how the successful legal strategy used by the National Association of the Advancement of Colored People (NAACP) in the case of *Louise Kerr versus the Enoch Pratt Free Library* (1943–1945) opened librarianship including health sciences librarianship as a profession for African Americans and other people of color.

**Methods:** Researched the primary literature on the legal strategy and historical case of *Louise Kerr versus the Enoch Pratt Free Library* at the state historical society using a manuscript collection of the president of the local chapter of the NAACP and the archival collection of the local chapter of the NAACP; the papers of an NAACP lobbyist at the special collections of the institution; and the historical and special collections of the institution that includes a collection of the *Afro American Newspaper*.

**Conclusions:** *Louise Kerr versus the Enoch Pratt Free Library of Baltimore* helped open the doors of the library profession to people of color. The *Kerr* case was one of the stepping stones that led up to the historic *Brown versus the Board of Education* decision that desegregated public education in the United States. *Brown* not only integrated secondary education it also forced graduate programs at public institutions such as library schools to accept students of color.

4:55 p.m.

### **Those Who Made a Difference: A Qualitative Study of Firsts**

**Cynthia L. Henderson**, Deputy Director, Multi-Media Center, Morehouse School of Medicine, Atlanta, GA

**Description:** This study will interview African American medical librarians who were the first to achieve milestones in MLA participation such as national committee or task force chair, chapter chair, section chair, special interest group convener, MLA Board member, MLA Fellow, and MLA award winners. The interviews will be audiotaped, and the tapes will be transcribed. After the interview of each selected individual a qualitative analysis will be conducted to discover if there are common themes to be found in the backgrounds or work lives of the interviewees. Tentatively to be interviewed are: Sandra Franklin, Craig Haynes, AHIP, Rosalind Lett, AHIP, Sandra Martin, AHIP, and Madeline Taylor, AHIP, FMLA. Other interviewees will be identified and added. This presentation will celebrate the MLA accomplishments of these individuals. It will raise awareness of African American participation in MLA. It will identify any similar attributes of these unique individuals and hopefully result in increased African American participation in MLA activities.

5:15 p.m.

### **The First Blood Bank in the South: The John Gaston Hospital Blood Bank in 1938**

**Richard Nollan**, Assistant Professor, Health Sciences Library, University of Tennessee–Memphis

**Description:** Blood is the part of the body identified as the essence of life. Loss of blood is loss of life, and replacing it when necessary has for centuries been recognized as a desirable if elusive procedure. As an understand-

ing of blood composition improved and technology advanced, the feasibility of transfusion grew. Attempts in the 19th century met with mixed success, but by the beginning of the 20th century, the transfusion of blood stored outside of the body became safe and reliable. The first blood bank in the South opened its doors in 1938 at the John Gaston Hospital in Memphis, TN. Although the technological barriers were nearly all overcome, social barriers remained. Before blood banking, donors had to come from family and friends: race was of little concern because patients and their families made the decision as to who would donate blood. Once blood banking was instituted, donors became anonymous and the origin of the blood for transfusion became more closely associated with social fears about the mixing of blood from different races. Separating blood by race was medically unsupported, but the Gaston Hospital blood bank acquiesced for a number of years. Disease transmission, such as syphilis and hepatitis, was linked with the issue of race. As the importance of blood banking became apparent, especially during World War II, the number of volunteer donors grew. Eventually the medical opinion of the sameness of blood became the norm in blood banking, not so much because superior knowledge prevailed but because blood banks were able to conceal social fears behind the benefits of banked blood. The racial arguments for the segregation of blood could not be arranged to alter the generalizations of medicine.

**5:35 p.m.**

**Opening Doors: Contemporary African American Surgeons**

**Jill Newmark**, Exhibition Registrar, History of Medicine Division, National Library of Medicine, National Institutes of Health, Bethesda, MD; **Margaret Hutto**, Exhibits Manager, Reginald Lewis Museum of Maryland African American History, Baltimore, MD  
**Description:** The presentation will feature highlights of *Opening Doors: Contemporary African American Academic Surgeons*, an exhibition celebrating the contributions of African American academic surgeons to medicine and medical education. It tells the stories of four pioneering African American surgeons and educators who exemplify excellence in their fields and believe in continuing the journey of excellence through the education and mentoring of younger physicians and surgeons. Through contemporary and historical images, the exhibition takes the visitor on a journey through the lives and achievements of these academic surgeons and provides a glimpse into the stories of those that came before them and those that continue the tradition today. *Opening Doors* was developed and produced by the National Library of Medicine and the Reginald F. Lewis Museum of Maryland African American History and Culture, the largest medical library in the world and the largest African American Museum on the east coast. An online web version is available at [www.nlm.nih.gov/exhibition/aframsurgeons/](http://www.nlm.nih.gov/exhibition/aframsurgeons/) and a traveling version is currently touring throughout the United States through February 2011.

Research Section

**Developing a Research Culture in Your Organization**

**Columbus A and B**

**4:35 p.m.**

**What's So "Imperative" About Research?**

**Gerald Perry, AHIP**, Director, Dennison Memorial Library, University of Colorado–Denver

**Description:** MLA's refreshed research policy statement, *The Research Imperative*, was adopted by the association in 2007. Building on the earlier, prescient policy statement, *Using Scientific Evidence to Improve Information Practice*, the association's updated policy emphasizes the need for health information professionals to incorporate research-sourced evidence into their daily practice. It envisions a future where our professional knowledgebase is robust and rich with that necessary evidence and provides recommendations to advance toward that future for the association and key stakeholders. This presentation will describe the vision explicit in the updated policy statement and the rationale for why research is indeed an imperative for our profession.

**4:51 p.m.**

**From Evidence to Strategic Plan**

**Sue Fleming**, Medical Librarian, Via Christi Libraries, Via Christi Regional Medical Center, Wichita, KS

**Description:** In 2004, the Via Christi Libraries began a project to develop and implement an evidence-based strategic plan. The project involved developing an information needs assessment of Via Christi health care professionals that answered the following questions:

- How can the Via Christi Libraries best serve their patrons, given realistic limitations on time, resources and personnel?
- Given these limitations, how can they best assist the Via Christi Health System in terms of improving patient care and outcomes?

The Via Christi Libraries applied for and were awarded a \$5,000 National Network of Libraries of Medicine grant to fund this needs assessment project. Based on the assessment results, the libraries formulated a strategic plan to support the missions of the Via Christi Libraries and the Via Christi Health System, providing a framework on which the libraries are building their future.

**5:07 p.m.**

**Making a Commitment to Evidence-based Library and Information Practice: The Role of Library Leadership**

**Susan C. Whitmore**, Chief, Information and Education Services Section, NIH Library, National Institutes of Health, Bethesda, MD

**Description:** As part of its long-standing commitment to create a learning organization, the National Institutes of Health (NIH) Library leadership team planned and implemented a systematic approach to fostering evidence-based library and information practice (EBLIP) and enabling library staff to routinely apply evidence in

decision making. The NIH Library, a biomedical research library, successfully initiated a program to create an environment supportive of EBLIP that included support and release time for EBLIP projects, formal training in EBLIP skills, and team mentoring as research projects evolved. Details of the training provided and highlights of results from the studies on collection analysis, federated searching, information desk services, document delivery, and informationist services will be briefly described.

**5:23 p.m.**

**Climbing Mount Everest, or at Least the Sandias: The Viewpoint of an Academic Health Sciences Library Director**

**Holly S. Buchanan, AHIP**, Associate Vice President for Knowledge Management and Information Technology, Health Sciences Library and Informatics Center, The University of New Mexico–Albuquerque

**Description:** Today's academic libraries, as well as hospital libraries supporting graduate medical education programs, understand the importance of the research enterprise, especially translational research. Less clear, are the steps library leadership can take to transform support for the research enterprise so that the library is recognized as a critical partner. This presentation will outline the actions taken in one Association of Academic Health Sciences Libraries library, including such things as: strategic planning, assessment, and outcome measures. It will also describe the library's participation in national initiatives, such as the Clinical and Translational Science Award

(CTSA) proposal and piloting a new benchmarking tool, TechQual+, hoped to do for information technology what LibQual+ has done for academic libraries.

**5:39 p.m.**

**The Culture of Research in Its Many Contexts**

**Rosalind F. Dudden, AHIP, FMLA**, Library Services Director, Gerald Tucker Memorial Medical Library, National Jewish Medical and Research Center, Denver, CO

**Description:** How a library implements a culture of research will depend not only on the context in which it operates, but also on how it is viewed in that context. This session will report on the imperative of doing research from the view of the profession as whole and ways of doing, applying, and promoting research in various contexts, such as applying research results to strategic planning, promoting research education in the library work place, and seeking out research collaborators in your institution. Research can enable librarians to determine what library users need and create, through continuous assessment, efficient and effective services and systems to meet those needs. It also can equip librarians to cultivate full partnerships in important and related institutional research. Library services and systems need to be flexible to meet the demands of today's multidimensional customer. A management culture that encourages planning and assessment, learning, collaboration, planning, and change can support the continuum of the research process from an idea to an application that influences practice.

**Section Programs**

Monday, May 19, 10:30 a.m.–noon

Collection Development Section**Bridging the Library Ethics Gap: Conflict of Interest Concerns of Librarians****Columbus E and F****10:40 a.m.****The Nature of the Gap****Joan Schuitema**, Catalog Librarian, Catalog Department, University Library, University of Illinois–Chicago

**Description:** This presentation will help set the stage by reviewing the history of professional ethics in librarianship. It will identify current ethics statements with an emphasis on those most affecting collection development librarians. Because professional ethic statements are closely aligned with a profession's vision and values, this presentation will also explore how the perception of a "library ethics gap" may occur during periods of rapid flux in the profession.

**11:00 a.m.****Mind the Publication Ethic's Gap****Andrew Robinson**, Deputy Managing Director and Publishing Director, Medicine, Wiley-Blackwell, Oxford, United Kingdom

**Description:** Everyone, medical librarians included, makes multiple ethical decisions on a day-to-day basis. The medical profession is obviously no exception with ethics routinely impinging on patient care decisions and doctor's relationships with the pharmaceutical industry. The "industry" of academic research and its publications are also increasingly afflicted by ethical questions relating to transparency of authorship, transparency of funding, plagiarism, dual publication, and integrity of research findings. Medical issues also include the impact of the pharmaceutical and medical device industries on the publication of clinical trial data. This presentation will explore these issues and the ways in which journal editors and publishers are working to ensure that peer review and journal quality are not undermined.

**11:20 a.m.****Pens, Pencils, and Parties: Avoiding Conflicting Interests in Collection Development****Jonathan Lord**, AHIP, Collection Development Librarian, Claude Moore Health Sciences Library, University of Virginia–Charlottesville

**Description:** What common situations constitute a conflict of interest for the collection development librarian? How can these situations be handled professionally and ethically or avoided altogether? Establishing a clear statement of purpose in the library collection development policy can be a good guide in avoiding conflicts of interest. This statement of purpose needs to be developed in accordance with the many external factors that will be unique to each institution. Vendor relations can be gov-

erned by governmental policy, institutional policy, departmental policy, and professional ethics. Many of these policy statements are necessarily vague to cover the broadest range of activities. Vague policy statements may lead to varying degrees of interpretation and application. The collection development librarian may find that there are inconsistencies in the many layers of governmental and institutional policies that define and govern the conduct of business with vendors. Sorting it all out and mapping a clear plan of action can be an effective way to ensure compliance with regulations and good vendor relations.

**11:40 a.m.****Q & A Session**International Cooperation Section**Issues in International Librarianship: Copyright and Resources Sharing****Veterinary Medical Libraries Section; Lesbian, Gay, Bisexual, and Transgendered Health Science Librarians; Outreach SIGs****Columbus A and B****10:35 a.m.****Collaborative Strategies for Connecting Medical Libraries in the Gulf Region****Bijan Esfahani**, Manager, Information Services, Distributed eLibrary, Weill Cornell Medical College–Qatar, Doha, Qatar

**Setting:** There is currently no standardized profile data on medical libraries in the Gulf Region. Also, these libraries do not have a model for resource sharing and collaboration. This investigation takes place at the Distributed eLibrary, Weill Cornell Medical College in Qatar, and describes medical libraries in the Gulf Region of the Middle East.

**Objectives:** This paper provides an overview and description of the medical libraries in the Gulf Region of the Middle East, focusing on the development of a model for resource sharing and creating a collaborative regional forum for information literacy and library instruction. The profile for the Distributed eLibrary at the Weill Cornell Medical College in Qatar will be presented.

**Methods:** Develop a profile for gathering information on each library's resources and services and create a database of these profiles, including interest in resource sharing and participation in a collaborative regional forum for information literacy and library instruction.

**Results:** The profile data provides valuable information on each of the participating libraries. It is also an effective tool in identifying libraries interested in resource sharing, and participating in the collaborative regional forum.

**Conclusions:** Based on input from participating libraries, develop a model for resource sharing. Launch a collaborative regional forum on information literacy and library instruction. Investigate other methods for collaboration and participation.

11:15 a.m.

### Issues in International Librarianship

**Tomas Lipinski**, Associate Professor, School of Information Studies, University of Wisconsin–Milwaukee

**Description:** The presentation will cover aspects of international copyright agreements and comparison to recent US revisions, as well as the future impact of licensing and use of digital rights management (DRM) on the use of protected content in cross-border distance education contexts.

11:35 a.m.

### Collaborative Strategies for Connecting Medical Libraries

**Thomas L. Williams, AHIP**, Director, Distributed eLibrary, Weill Cornell Medical College-Qatar, Doha, Qatar

### Q & A Session

### Leadership and Management Section

#### Connecting with Leaders: What Do They Expect?

#### Hospital Libraries Section

#### *Columbus I and J*

10:35 a.m.

#### Panel Discussion

**Robert Golden**, Dean, School of Medicine and Public Health, and Vice-Chancellor for Medical Affairs, University of Wisconsin–Madison; **Lois Halstead**, Vice Provost, Rush University, Chicago, IL; **Jeffrey C. Miller**, Vice Dean and Chief Operating Officer, Feinberg School of Medicine, Northwestern University, Chicago, IL; **Diana Halfer**, Administrator, Clinical and Organizational Development, Children’s Memorial Hospital, Chicago, IL; **William Duffy**, Vice President, Nursing and Perioperative Services, Evanston Hospital, Evanston Northwestern Healthcare, Evanston, IL

**Description:** What do our administrators expect from the library? An invited panel of academic and hospital administrators will discuss their expectations for return on investment (ROI) for the health sciences library in their respective organizations.

### Medical Informatics Section

#### Top Technology Trends: Bridge Today, Gone Tomorrow

#### Educational Media and Technologies Section

#### *Columbus K and L*

10:35 a.m.

#### Panel Discussion

**Sadie L. Honey**, Information and Web Services Librarian, Library and Center for Knowledge Management, University of California–San Francisco;

**Michelle Kraft, AHIP**, Senior Medical Librarian, Cleveland Clinic Alumni Library, South Pointe Hospital, Cleveland, OH; **Wallace McLendon**, Director, Health Science Center Libraries, University of Florida–Gainesville; **Bart Ragon**, Associate Director for Library Technology Services and Development, Claude Moore Health Sciences Library, University of Virginia–Charlottesville; **Gabriel Rios**, Deputy Director, UAB Lister Hill Library, University of Alabama–Birmingham; **Eric Schnell**, Associate Professor and Assistant Director, Prior Health Sciences Library, The Ohio State University–Columbus; **Rikke Ogawa, AHIP**, Emergent Technologies Coordinator, Research, Instruction and Collection Services, Louise M. Darling Biomedical Library, University of California–Los Angeles

**Description:** As a follow up to last year’s standing-room-only session, technology trend spotters in health sciences libraries will offer their latest insights, opinions, and criticisms on where technology is leading us next. This energetic and sometimes irreverent panel discussion will be accompanied by a Google jockey surfing the web and highlighting mentioned trends on the main screen. Want to jump into the mix? The session will have audience participation in our lively question-and-answer time as well as an opportunity to give feedback on the trends presented through an audience response system.

### Medical Library Education Section

#### Only Connect: Research to Practice

#### Research Section

#### *Columbus G and H*

10:35 a.m.

#### Library and Information Science Research Education and the MLA Research Policy

**Michelynn McKnight, AHIP**, Assistant Professor; **Carol Hagy**, Graduate Assistant; School of Library and Information Science, Louisiana State University–Baton Rouge

**Description:** The New MLA *Using Scientific Evidence to Improve Information Practice* policy statement ([www.mlanet.org/research/science4.html](http://www.mlanet.org/research/science4.html)) includes a number of research literacy competencies and goals for practicing health sciences librarians. To be accredited by the American Library Association (ALA), master’s of library and information science (MLIS) program curricula must include “the importance of research to the advancement of the field’s knowledge base,” but what skills and knowledge are taught in research courses in the ALA-accredited MLIS programs? Are these courses required or electives? Doctoral programs research methods and evaluation, but what areas must graduates study fulfill the goals of this policy?

11:15 a.m.

### Using Theory of Reasoned Action (TRA) in Understanding Selection and Use of Information Resources: The Role of Reference Services

**Donghua Tao**, Health Sciences Reference Librarian and PhD Candidate, Medical Center Library and School of Information Science and Learning Technologies, Saint Louis University and University of Missouri–Columbia, St. Louis and Columbia, MO; **Sanda Erdelez**, Associate Professor, School of Information Science and Learning Technologies, University of Missouri–Columbia

**Objective:** To propose and test an information resource selection and use model (IRSUM), which presents the causal-effect relationship of reference services influence on public health students' selection and use of information resources during completing a research paper assignment based on theory of reasoned action (TRA) and technology acceptance model (TAM). To discuss reference librarians' roles in instructing and promoting uses of library information resources.

**Methods:** All 282 students enrolled in the school of public health at a Midwestern university in the academic year 2006/07 were the study subjects. Both focus group and questionnaire survey were used for data collection. Two focus group discussions with 5 students in each were conducted to assure face validity and content validity of the questionnaire instruments. Two self-administered questionnaires were distributed. Multiple items were used to measure 12 variables in the proposed model. All the items were measured on a 7-point, Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Emailing, face-to-face class distributing, and campus mailbox mailing were used to increase the response rate. Descriptive statistics, Pearson's correlation, and structural equation modeling (SEM) techniques were used to represent data and test the proposed model.

**Results:** The study found that reference services significantly directly impact students' selection ( $\beta=0.233$ ,  $t=2.493$ ) and actual use ( $\beta=0.249$ ,  $t=2.613$ ) of primary resources. The indirect impact of reference services on students' selection and actual use of primary resources were mediated through perceived usefulness, perceived ease of use, perceived free of physical effort, reference librarian's influence, and instructor's influence.

**Conclusions:** These findings have important implications to health sciences reference librarians. Librarians should actively get involved in system design and implementation as representatives of users. In addition, advocating and leading information literacy education in their parent institutions, conducting user-centered collection development, and marketing library resources and services through multiple communication approaches are all important and ongoing tasks for librarians to optimize information services to keep up with the ever-changing information age and meet users' needs.

11:35 a.m.

### Assessment of Consumer Health Information in Wikipedia

**Jennie M. Morris**, Assistant Outreach Librarian, Outreach, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

**Background:** As the world of information expands to a Web 2.0 centered infrastructure, there is much debate about the validity and credibility of information in Wikipedia. Wikipedia is written collaboratively by volunteers and, as such, has the potential for misinformation and errors. This has created various opinions in the world of academics, particularly with regard to consumer health information and its potential consequences. This debate created a need to evaluate the consumer health information housed in Wikipedia.

**Objective:** To determine the validity and credibility of consumer health information located in Wikipedia.

**Method:** A qualitative survey was administered to medical subject specialists to evaluate the top ten most visited consumer health sites on Wikipedia. The subject specialists were physicians certified in the designated health topic who were willing to participate in the survey. The survey itself comprised questions determining whether the consumer health information in Wikipedia is authoritative, complementary, private, accurately cited, justifiable, transparent, accurate, and current. The survey was also designed to assess the site's advertising policy and financial disclosure. To minimize bias against Wikipedia, the subject specialists also evaluated MedlinePlus and WebMD using the same survey.

### Pharmacy and Drug Information Section

#### Bridging the Communication Gap Between Patients and Physicians/Practitioners

#### Chiropractic Libraries Section; Complementary and Alternative Medicine SIG

#### *Columbus C and D*

10:35 a.m.

#### Health Literacy: Helping Health Care Providers Help Patients Understand

**Mark V. Williams**, Professor and Chief, Division of Hospital Medicine, Feinberg School of Medicine, Northwestern University, IL

**Description:** Health literacy is the ability to read and comprehend prescription bottles, appointment slips, and other essential health-related materials required to function successfully as a patient in the health care setting. With the increasing emphasis on disease self-management, many patients with inadequate or marginal health literacy (up to a third of English-speaking patients over age sixty-five) may not have the skills necessary to properly understand health messages and care for themselves. Given the magnitude of this costly issue, health care providers need to consider patients' health literacy when counseling,

diagnosing, and treating them. Physicians and nurses can benefit from the assistance of medical librarians in developing appropriate patient education materials. Upon completion of this session, participants should be able to define functional health literacy; describe the magnitude of inadequate health literacy in the United States, particularly among the elderly; explain the importance of patients' health literacy on disease self-management skills; and recognize how medical librarians might help with patient education.

**11:15 a.m.**

**Is There a Way for Practitioners to Provide Evidence-based Information on Herbal Medicine to Patients**

**Norman R. Farnsworth**, Research Professor,  
Department of Medicinal Chemistry and  
Pharmacognosy, and Director, Program for

Collaborative Research in the Pharma Sciences,  
University of Illinois–Chicago

**Description:** In a best-case scenario, most physicians do not have the time to inform patients on the benefits and risks of herbal medicines (botanical dietary supplements) because this type of information is not generally taught in colleges of medicine. Authoritative books that treat these subjects are outdated at the time of printing, and benefits and risks of herbal medicines are being published in the contemporary scientific literature at an accelerated rate. The “lack of time” problem will be discussed and suggestions as to databases and other sources of information that are regularly updated and available to medical practitioners will be identified that could be useful to aid in the acquisition of rapid and accurate information for the benefit of the consumer.

## Section Programs

Monday, May 19, 2:00 p.m.–3:30 p.m.

### 2008 National Program Committee

#### **Building Connections to the Future**

##### **Columbus A and B**

2:05 p.m.

##### **Practicality versus Theory: Are We Preparing Health Sciences Librarians?**

**Ivonne Martinez**, Hospital Outreach Librarian;  
**Michele L. Malloy**, Education Services Librarian;  
Dahlgren Memorial Library, Georgetown University,  
Washington, DC

**Objective:** At the present time, education is evolving, and this has caused a wide gap between theory and practice in librarianship. This paper will explore, from the perspective of recent library school graduates now employed in health sciences libraries, the job market practicality of their education. Are library schools offering a curriculum that encompasses specific aspects of special library functions?

**Methods:** The overflow of information and new technologies is changing the way we perceive and perform our jobs. The changing environment calls for new skills and understanding of our altered place in the information world. To prepare for the survey, we will conduct a complete literature search into librarian's satisfaction with the job market usefulness of their education programs. To sufficiently judge the efficacy of library schools' current curriculum, we will survey new librarians (graduated within the past five years) working in health sciences libraries in the Mid-Atlantic region to explore the impact of our education system on our ability to perform library functions. Survey questions will directly address coursework and job tasks to discover possible correlations and suggest improvements to future library school programs.

2:25 p.m.

##### **Connecting the Dots: A Library Outreach Program**

**Kefeng (Maylene) Qiu**, AHIP, Clinical Reference Librarian, Quillen College of Medicine Library, East Tennessee State University–Johnson City; **Lin Wu**, AHIP, Reference Librarian, Health Sciences Library and Biocommunications Center, University of Tennessee–Memphis

**Objective:** The project sought to describe a clinical outreach program geared to physicians, residents, and medical students in a family medicine department to support evidence-based health care with the intention to provide future medical librarians opportunities to learn about user needs in health care environment and to make recommendations to those who are interested in working as clinical librarians.

**Methods:** To support evidence-based health care, the clinical reference librarians from a college of medicine library in a state university provide an outreach service to a family medicine department by participating in their

morning report rounds. The librarians helped perform literature searches and delivered search results to the clinical team in a timely fashion. Search questions from March through December 2007 will be collected for examination. Data collected included number of search questions requested, number of searches performed, and number of documents delivered to the healthcare professionals. Types of search questions and frequently requested search questions were identified. Recommendations will be made for future medical librarians who are interested in working to provide evidence-based practice support for health care professionals.

**Results:** During March through December 2007, a total of 154 search questions were requested at the morning report rounds. Questions were classified into 6 types and 15 disease categories. The most frequently requested type of question was therapy (59%; n=91) while the most frequently requested disease question was on cardiovascular diseases (24%; n=37). Librarians performed a total of 826 literature searches and delivered 989 documents to the clinical team. This study indicated that the clinical team needed librarians to perform literature searches to support evidence-based practice at the point of care. To meet this need, a clinical reference librarian should have skills and knowledge of effective information retrieval and learn basic medical concepts and trends of clinical epidemiology.

2:45 p.m.

##### **Specialization in Medical Librarianship**

**Alicia A. Livinski**, Biomedical Librarian, NIH Library, National Institutes of Health, Bethesda, MD; **Courtney D. Crummett**, Visiting NLM Associate Fellow, Science and Engineering Libraries, Massachusetts Institute of Technology–Cambridge

**Objective:** Medical libraries now and in the future must continue to evolve to remain viable as new challenges arise in medical librarianship, the information explosion continues, and the users' search skills expand. One way to remain viable is librarian specialization in the form of a subject graduate degree in addition to the required master's of library science (MLS) degree. The debate over the value of obtaining additional educational credentials has waxed and waned for almost six decades. This paper examines the concept of librarian specialization and its place within medical librarianship.

**Methods:** Using anecdotal evidence, the scholarly literature and personal experience, the authors will examine where librarian specialization fits into medical librarianship. Specific examples of librarian roles and duties in the medical library will be categorized. Roles, duties, and titles where specialization would be applicable will be identified. Benefits of librarian specialization to the institution, users and libraries will also be examined. Additionally, the perspective of recent MLS graduates will be applied to information gathered. The authors will contribute to the community of medical librarianship by offering a better understanding of the needs and benefits of librarian specialization.

3:05 p.m.

**Modeling Lay Information Mediarly Behavior: Implications for Information Services and Health Outcomes**

**Jennie A. Abrahamson**, NLM Fellow, Department of Medical Informatics and Clinical Epidemiology, Oregon Health & Science University–Portland; **Karen E. Fisher**, Associate Professor, The Information School, University of Washington–Seattle

**Objectives:** To review past research and propose a general model of lay information mediary behavior (LIMB) to inform future work and information service and system design. In deriving this model, we addressed the following questions:

- Who are the participants in LIMB?
- What are its stages, contexts, and characteristics?
- What are its outcomes and effects?

**Methods:** Combined narrative review and qualitative study. Lay information mediaries seek information on behalf or because of others and have been referred to in previous research as gatekeepers, proxies, natural helpers, etc. The narrative review encompassed literature on lay information mediaries and related concepts from the library and information science, health care, and social science domains. The qualitative study utilized a web-based survey (n=211) and follow-up semi-structured telephone interviews (n=21) of users of an Internet health information portal targeting patients and other health information seekers, health care providers, and community services agencies in a statewide area. Qualitative study results were analyzed using a grounded theory approach. **Results:** Lay information mediaries appear to be increasing in prevalence due to varied societal factors and developing information communication technologies. However, previous information-seeking models do not explore LIMB in-depth. The consumer health information domain provides fertile ground for investigating LIMB. This may be partly due to the uncertainty frequently associated with illness and increased physiological, affective, and cognitive needs that health challenges can create for individuals, their families, and significant others.

**Conclusions:** Information gatekeepers, proxies, etc. exhibit behaviors that are sufficiently related to be conceptualized as one broad type of information seeker, the lay information mediary. We propose a conceptual model of LIMB on which to base future empirical and theoretical work in health information seeking. This model may facilitate information service and system design to support these influential information seekers and improve related individual and community health outcomes.

Consumer and Patient Health Information Section

**Consent or Obedience? Medical Authority and Consumer Health Education: Bridging the Medical Ethics Gap**

**Collection Development Section; Lesbian, Gay, Bisexual, and Transgendered Health Science Librarians SIG**

**Grand Ballroom A**

2:05 p.m.

**Truth and Consequence: Authoritative Knowledge, Claims of Salvation, and the Medical Internet**

**Laurie Zoloth**, Professor of Bioethics and Medical Humanities and of Religion, Director of the Center for Bioethics, Science and Society, Northwestern University, Evanston, IL

**Description:** Today, the Internet has transformed the way consumer health information is distributed. This means that who has access to a language and literature that was formerly only accessible to an inner circle is suddenly altered. Patient and families thus become consumers of multiple, conflicting sources of medical information, truth claims, and clinical studies, often just at the point of most desperation in the life of a family. This creates both a sense of transparency and a sense of deception in an unmarked virtual world. Deciphering this information calls for strategies for judging the trustworthiness of a source—an elusive task even for the scientist. This program will discuss the ethics of distributed knowledge for research, medical authority, and power in the informed consent relationship that is at the heart of medicine and science.

Educational Media and Technologies Section

**Bridging the Gap with Web 2.0: Connecting with Our Community and Ourselves**

**Corporate Information Services, Dental, Nursing and Allied Health Resources, Relevant Issues Sections; Clinical Librarians and Evidence-Based Health Care; Lesbian, Gay, Bisexual, and Transgendered Health Science Librarians; Molecular Biology and Genomics; Outreach SIGs**

**Grand Ballroom B**

2:05 p.m.

**Cross-country Connections: Implementing Learning 2.0 in a Multistate Medical Library System**

**Melissa L. Rethlefsen**, Education Technology Librarian, Learning Resource Center, Mayo Clinic Libraries, Rochester, MN; **Ann M. Farrell**, Medical Librarian, Medical Library, Mayo Clinic, Jacksonville, FL

**Objective:** To assess satisfaction with a 13-week Learning 2.0 course and to determine whether knowledge and use of Library 2.0/Web 2.0 concepts and tools by library staff increased

**Methods:** Fifty-eight staff from 18 libraries in a multistate medical library system participated in a 13-week customized Learning 2.0 program. The Learning 2.0 format enabled library staff to access training materials online, but more importantly to collaborate with one another in a learning community spread across the country. The 13-week program covered traditional Web 2.0 tools with an emphasis on biomedical and library applications. Program coordinators released a new blog post introducing a

concept with hands-on discovery assignments weekly, coupling the blog with regular video conferences to improve collaboration between sites. Each participant created a blog and could track and comment on other participants' blogs. Satisfaction data were gathered in a progress log and a posttest survey. Participants completed a posttest/retrospective pretest survey rating knowledge of 14 tools and concepts covered in the Learning 2.0 program. The posttest survey and a 3-month follow-up survey gauged participants' personal and work-related use of Web 2.0 tools. Participant blog entries and assignments and email correspondence with program leaders provided qualitative data for analysis.

**Conclusion:** Twenty-two of the original fifty-eight registrants completed the entire program in the allotted time frame. For those who completed the program, there was a statistically significant increase in perceived knowledge for each tool/concept. One hundred percent of these felt that they had learned an exceptional or a substantial amount. Satisfaction was high for the whole program and for the individual components. Least popular topics were social networking and PubMed mashups, due to privacy concerns with social networks and unfamiliarity with PubMed. Eighty-nine percent of respondents who completed the program continued to use the tools after the course; RSS and reading blogs were the most commonly used tools/concepts after program completion. Respondents felt that RSS feeds, tagging and social bookmarking, and social online catalogs were the most important tools for the library to implement.

**2:25 p.m.**

#### **Treating Users as Codevelopers: One Library's Experience with Perpetual Beta**

**Marcus A. Banks**, Manager of Education and Information Services; **Sadie Honey**, Web Services Manager; **Julia K. Kochi**, Director, Digital Library and Collections; Library and Center for Knowledge Management, University of California–San Francisco

**Objective:** This paper will review three technology-based library services to determine whether releasing them in “perpetual beta,” in which users are treated as codevelopers and new features are added periodically, was successful. Additionally, we will present a decision matrix to help similar libraries decide when this product roll-out method is appropriate and when a more deliberative approach is preferable.

**Methods:** In an attempt to foster a more nimble approach to technology a health sciences library in a graduate academic setting recently released three technology-based services, for a mix of external and internal users, before they were exhaustively vetted. Through the use of focus groups, individual interviews, and surveys, we will ascertain the successes and failures of each service. These data will be used to determine if the strategy of perpetual beta release was appropriate. Input from the project developers, the end users and the staff who provide support for the services will cumulatively inform our conclusions. After presenting data from this library, we will extrapolate

general characteristics of a project with good “perpetual beta” potential. Finally, we will present a decision matrix to assist similar libraries in determining if, when, and how to use this approach.

**Conclusions:** The concept of perpetual beta represents a philosophical shift for librarians, who usually prefer to release a new product or service after it has been thoroughly reviewed. In some cases, this approach remains problematic. For example, changes to preexisting products should be implemented carefully. Another cause for caution is when a library service has many interdependencies across a larger system; interlibrary loan operations are one example of this. On the other hand, when a library hopes to introduce something new perpetual beta should speed the development cycle and offer opportunities for prompt user feedback that leads to better products and services over time. To fully embrace this model librarians, other staff members, and patrons must accept the idea that new product development is iterative and dynamic.

**2:45 p.m.**

#### **Challenges of Discovery: Consumer Health Resources in Second Life and Use of a Wiki for Indexing and Community Building**

**Patricia F. Anderson**, Senior Associate Librarian, Health Sciences Libraries, University of Michigan–Ann Arbor; **Arta Dobbs**, Technical Services Librarian, Lyman Maynard Stowe Library, University of Connecticut Health Center–Farmington; **Joshua D. Copeland**, Second Life Associate, Interactive Arts and Media, Columbia College, Chicago, IL

**Objective:** To illustrate the power of a collaborative solution to the problem of discovering consumer health and health care resources in Second Life.

**Methods:** As in the early days of the web, Second Life offers a rapidly growing wealth of resources with inadequate search tools for their discovery. To facilitate discovery and utilization of consumer health and healthcare resources in Second Life, a web-based wiki is being used to foster collaboration and communication among stakeholders. Contributing authors to the wiki include medical librarians, health care providers, educators, patient advocates, and health care consumers. Development of the wiki and contact with the communities represented has provided insights into the similarities and significant differences of consumer health communities in Second Life as compared with web-based or face-to-face support groups and information resources for similar communities.

**3:05 p.m.**

#### **Ask an Avatar: Providing Reference Services in Second Life**

**Gillian G. Mayman**, Informatics Librarian; **Jean Song**, Bioinformationist; **Whitney Townsend**, Liaison Librarian; **Patricia F. Anderson**, Liaison Librarian; **Jane Blumenthal**, AHIP, Director; Health Sciences Libraries, University of Michigan–Ann Arbor

**Objective:** To use librarian avatars in Second Life to explore providing reference services to health sciences faculty and students.

**Methods:** Using humor and example scenarios from “real life,” this presentation will be a skit illustrating the pitfalls and best practices involved in providing reference services in Second Life.

**Skit Scenario:** A librarian sits at her computer during her reference shift in Second Life. Her avatar, a Viking warrior princess, stands in the Information Room waiting for a question. A young male medical student sits at his computer and has just finished a patient simulation in Second Life. He decides to ask the librarian a question before he logs out. His avatar, a Japanese school girl in miniskirt and ponytails, approaches the librarian. The interaction that follows illustrates the difficulties that librarians may face when trying to communicate with users in Second Life, knowing exactly who the user is, sharing information with the user, and maintaining privacy and professionalism, as well as the use of the “physical space” in Second Life.

### Federal Libraries Section

#### **Connecting Veterans, Military Personnel, and Families to Mental Health Resources**

**Department of Veterans Affairs Librarians, Mental Health, Outreach SIGs**

##### *Columbus G and H*

**2:05 p.m.**

#### **Go Local Partnership with Citizen-Soldier Support Program for Military Families**

**Christie C. Silbajoris, AHIP**, NC Health Information Director; **Diana McDuffee, AHIP**, Network Director, Area Health Education Center Information and Library Systems; Health Sciences Library, University of North Carolina–Chapel Hill

**Objective:** Guardsmen and reservists from every North Carolina county have been called to active duty. This paper describes a successful collaboration with the Citizen-Soldier Support Program (CSSP) that leveraged NC Health Info Go Local to improve access to crucial health information for first providers, citizen soldiers, and their families.

**Methods:** In consultation with CSSP staff, local services crucial to returning citizen soldiers and their families were identified and added to the Go Local database. Vocabulary pairings were created to enable indexing and easy retrieval by this population. The collaboration uncovered the need for mental health information for primary care providers (often the only providers in largely rural North Carolina) to enable them to recognize combat-related disorders and make appropriate referrals. This need was met through creating a special collection in the Area Health Education Center (AHEC) Digital Library for health professionals’ use. Health information on traumatic brain injury, post-traumatic stress disorder,

deployment, emotional and mental health, and navigating the military health care system for returning soldiers and their families was provided through a special page on NC Health Info. These collections provided reference for a pilot continuing education course delivered by AHEC through the Governor’s Focus on Returning Veterans initiative.

**Conclusions:** The inclusion of the military health collection in NC Health Info and in the advanced distributed learning (ADL), as well as the increased number of services for the military in Go Local has brought new users to each of these sites. A positive, ongoing, collaborative relationship has been established with CSSP, who is providing funding support to the project. Librarian expertise in information organization has demonstrated the value of the library’s information services, and led to new partnerships with the NC Department of Health and Human Services and the Governor’s Taskforce for Returning Veterans and Their Families. The vocabulary developed and collaborative working model employed is easily replicable by other Go Local projects seeking to improve access to health and health services information for this deserving, underserved population.

**2:30 p.m.**

#### **Information Handouts for Concrete Services and Discharge Planning**

**Bill Kinnaird**, Clinical Social Worker, Jesse Brown VA Medical Center, Chicago, IL

**Description:** While information handouts are commonly used in health care education, this paper is about social workers systematically developing and using them to provide timely, efficient, and ultimately better patient care for concrete services and discharge planning. How to identify topics and suggestions for using user-friendly handouts are discussed. Many clinical uses for handouts are considered, including engaging, assessing, and empowering patients, groups, and families. Related uses are considered such as educating the treatment team and students. How handouts can be a crucial bridge to developing a comprehensive, focused social resource database is considered. Follow-up survey results with an inner city Veterans Administration social work staff (n=41) confirm that social work discharge planners and non-discharge planners find systematically developed handouts valuable for providing efficient, better patient care.

**2:55 p.m.**

#### **MyHealtheVet and Other Mental Health Resources for Veterans**

**Lola Purvis**, Chief, Library Service, VA Medical Center, Alexandria, LA

**Description:** The speaker will identify the mental health resources available to veterans through MyHealtheVet, National Center for Post-Traumatic Stress Disorder (PTSD), and other websites.

**3:20 p.m.**

#### **Q & A Session**

Leadership and Management Section**Connecting the Dots: Strategies for Building a Portable Career [Networking, Professional Development, Leadership, Career Building, Career Reinvention, Mentoring] and Speed Mentoring**

Hospital Libraries Section; African American Medical Librarians Alliance, New Members SIGs

**Columbus I and J**

**Description:** "Connecting the Dots" is a two-part, hands-on session. In part one, attendees will participate in roundtables on professional development and job-searching skills and techniques. Part two is a speed mentoring session, in which mentees will have ten-minute meetings with two to three library administrators to review resumes and discuss professional development opportunities.

Research Section**Research Collaborations: Bridges with Impact****Complementary and Alternative Medicine SIG****Columbus C and D**

2:05 p.m.

**Reconstructing Reference to Become Strategic Partners in Research Initiatives**

**Irene M. Lubker**, Research Librarian; **Barbara Allen Wright**, AHIP, Reference Services Librarian; **Margaret E. Henderson**, Reference Services Librarian; **Kristine M. Hughes**, Education Services Librarian; **Shannon D. Jones**, Head, Outreach Services; **Virginia L. Stone**, Education Services Librarian; **Jean P. Shipman**, AHIP, Director and Associate University Librarian; **Mary Jane Green**, Reference Services Specialist; **Catharine S. Canevari**, AHIP, Associate Director, Research and Education; Tompkins-McCaw Library for the Health Sciences, Virginia Commonwealth University—Richmond

**Objectives:** In recent years, the desire to strengthen support for researchers and increase sponsored funding has become a central focus at Virginia Commonwealth University (VCU). In response, a plan was formulated to reassign library faculty, positioning them to become full partners and strategic assets for the expanding research enterprise.

**Methods:** Previously, librarians had minimal involvement with the research enterprise. We discussed support needs with key faculty and administrators, reviewed questions asked at service points, and gathered usage data on research support materials. Other academic health sciences libraries were surveyed regarding their research staffing, resources, and support trends. We then realigned faculty and services and implemented an on-call reference model. Librarians now participate in research support activities including grant-related committees, information resource training, literature reviews, and special

event planning. Librarians also work with VCU's Center for Clinical and Translation Research, Institutional Animal Care and Use Committee, and Institutional Review Boards. Another highlight event was the inaugural 2008 Research Day jointly sponsored with VCU's Office of Research. These activities are being tracked and evaluated through feedback from faculty and administrators and review of associated costs and benefits.

**Results:** An increase in researchers' use of librarian consultations was experienced including requests for literature reviews for curriculum development, grant and manuscript preparation, and more requests for instruction on funding sources and advanced citation management. Satisfied clients are promoting the benefits of library support to their peers, and librarians are being asked to co-author resulting publications. Other service outcomes include closer working relationships with VCU faculty, increased referrals to other library services, and an inaugural 2008 Research Day, cosponsored by VCU Libraries and the VCU Office of Research. Fees charged for these enhanced research services have been used to support supplemental library faculty. Both librarians and paraprofessional staff have realized opportunities for growth in their new roles.

**Conclusions:** Reallocating faculty to support research services has had positive outcomes for the library, especially increased university recognition of the value of library support to VCU's research initiatives.

2:21 p.m.

**Health Sciences Librarians and PubViz: A Novel MEDLINE Exploration Engine**

**Jean Song**, Informationist; **Marci Brandenburg**, Informationist; Health Sciences Library; **Fan Meng**, Research Assistant Professor, Molecular and Behavioral Neuroscience Institute; **Barbara Mirel**, Associate Research Scientist, School of Information; University of Michigan—Ann Arbor

**Objective:** Working directly with developers, health sciences librarians collaborated in enhancing a new locally developed MEDLINE search engine called PubViz.

**Methods:** PubViz is a tool developed at the University of Michigan that uses controlled vocabulary, natural language processing, and additional external biomedical data sources such as protein databases to provide visual search result sets to end users. To improve the application, librarians collaborated with developers to provide user defined search requests that fit the information retrieval and analysis strengths of PubViz. Librarians then conducted the searches using their conventional tools and comparisons were made between the expert search results and the PubViz generated results. These comparisons allowed the developers to enhance further their search and retrieval algorithms for the application. To help in the design of usable interfaces for PubViz, the health sciences librarians also participated in focus groups with developers and human factors specialists. A brief overview of PubViz, analysis of the comparative data, and results of the usability studies will be shared.

2:37 p.m.

### **An Exploratory Analysis of PubMed's Free Full-text Limit on Citation Retrieval for Clinical Questions**

**Mary Krieger**, Assistant Director for Information Services, Medical Center Library; **Randy Richter**, Associate Professor; **Tricia Austin**, Assistant Professor, Program in Physical Therapy; Saint Louis University, St. Louis, MO

**Objective:** To examine the effect of the free full-text (FFT) limit in PubMed on the overall number of citations retrieved, the number of relevant citations retrieved, and the levels of evidence of relevant citations when performing a search on a clinical question.

**Methods:** Four therapy questions that were pertinent to rehabilitation professionals in a variety of practice settings were developed using the problem, intervention, comparison, outcome (PICO) format. The questions were based on broad research areas defined in the *Clinical Research Agenda for Physical Therapy* published in 2000. Each question was searched in PubMed both with and without use of the FFT limit. Retrieved citations were saved in My NCBI and were examined for relevancy by three investigators who used consensus to determine inclusion in the final data set. The abstracts of relevant articles were reviewed and assigned by consensus a level of evidence. Descriptive analysis was used to compare the total number of citations, number of relevant citations, types of articles, and levels of evidence retrieved both with and without the use of the FFT limit.

**Results:** Across all 4 questions, the FFT limit reduced the number of citations to 11.1% of the total number of citations retrievable without the FFT limit. This finding is consistent with a LinkOut report that 10.3% of PubMed citations had FFT links in May 2007. Additionally, high-quality evidence such as systematic reviews and randomized controlled trials were missed when the FFT limit was used.

**Conclusions:** Health sciences librarians play a key role in educating users about the potential impact the FFT limit has on the number of citations, types of articles, and levels of evidence retrieved.

2:53 p.m.

### **The Influence of an Evidence-based Medicine Focused Morning Report on Resident Physician Use of MEDLINE and UpToDate**

**Ahlam Saleh**, Reference Librarian; **Nancy Tannery**, Reference Librarian; **Charles Wessel**, Reference Librarian; Health Sciences Library System; **Scott R. Herrle**, Chief Medical Resident, Division of General Internal Medicine, Department of Medicine; **Bruce Y. Lee**, Faculty; **Megan S. Cunnane**, Faculty; **Rosanne Granieri**, Faculty; **Elizabeth Weinstein**, Chief Resident; **Raquel A. Buranosky**, Faculty, Division of General Internal Medicine, Department of Medicine; University of Pittsburgh, University of Pittsburgh, Pittsburgh, PA

**Objectives:** To examine the use of the medical literature by resident physicians after the incorporation of

evidence-based medicine principles and clinical medical librarians into a traditional morning report format.

**Methods:** At a university-based internal medicine residency program, the morning report structure was modified to include generation of a case-based clinical question. Two residents were then assigned to answer the clinical question in addition to a medical librarian. One resident was instructed to perform a search of the MEDLINE database, while the second was instructed to use the information contained in UpToDate or in one of the articles cited in its bibliography section, and this information was then presented at a later session. During a six-month period, forty-five ward residents completed an identical survey both before and after their participation in this new morning report format. This survey queried residents on their use of both MEDLINE and UpToDate and about participation of a medical librarian in morning report.

**Results:** The survey data demonstrate more frequent use of UpToDate compared to MEDLINE to obtain clinical information related to patient care. While there were no significant post-intervention changes in the frequency of use of UpToDate and MEDLINE, there was a noted increase in the level of comfort with using MEDLINE. Residents showed an increase in the use of the bibliographic content of UpToDate as a means to obtain primary literature ( $P=0.006$ ). There was also a dramatic increased preference for librarian participation in morning report ( $P=0.001$ ).

**Conclusions:** The change in resident morning report format to include more evidence-based teaching principles enhanced the residents' overall learning experience. A possible follow up would be to introduce librarian training on how to conduct more efficient searches of MEDLINE. The positive feedback on librarian integration into the morning report format can serve as an example for potential medical librarian incorporation into other clinical settings.

3:09 p.m.

### **Connecting through Quality: A Medical Librarian's Journey to Improving Patient Care Through Six Sigma**

**Julia Esparza**, Clinical Medical Librarian, Department of Medical Library Science, Louisiana State University Health Sciences Center–Shreveport; **Shannon Johnson**, Clinical Quality Improvement Analyst, Performance Improvement, Deaconess Health System, Evansville, IN; **Michael Wade**, Director of Physical Medicine, Physical Medicine, Progressive Health of Indiana, Evansville, IN; **Miranda Woosley**, Project Manager, Information Services, Deaconess Health System, Evansville, IN

**Objective:** Core quality indicators are coming more into play with hospital administration as reimbursements are being tied to performance. How can a multidisciplinary team achieve reduced average throughput time of an acute myocardial infarction patient with a diagnostic electrocardiogram in order to improve a Joint Commission and Centers for Medicare and Medicaid hospital core measure?

**Methods:** Deaconess Health System is a community research health system with 4,000 employees in the Midwest serving approximately 5 million people. The hospital is an accredited chest pain center and strives to provide outstanding quality care. The librarian as part of a multidisciplinary team utilized 6 sigma methodology through a nine-month training exercise to improve throughput time of the acute myocardial infarction patient with a diagnostic electrocardiogram. Through an evidenced-based literature review, 6 sigma define, measure, analyze, improve, and control (DMAIC) process, and 6 sigma work-out and change acceleration process (CAP) tools the team evaluated and identified ways to improve the throughput time.

**Results:** At the end of the initial project overall throughput time was reduced 18% from 95 minutes to 77 minutes. Because the project promoted strict monitoring and feedback of the process, the continual evaluation has resulted in a current throughput time in 2007 of 65 minutes.

**Conclusions:** Through use of the six sigma methodology, the team members in this project increased exposure of their individual talents to administration and members of the direct patient care teams. As part of the multidisciplinary team, the librarian was able to showcase searching skills that would result in increased searching for quality improvement projects at their start.

## Technical Services Section

### **Legal Aspects of Digitization and Documents Management**

#### **Veterinary Medical Libraries Section**

##### ***Columbus E and F***

**2:05 p.m.**

### **Legal Aspects of Digitization and Document Management**

**Tomas Lipinski**, Associate Professor, School of Information Studies, University of Wisconsin–Milwaukee

**Description:** This session will include a brief review of liability and damages (based on a recent corporate case study) and fair use (based on recent Google caching cases). Compliance-oriented approaches for managing copyright content in digital environments including digitization projects in the special library setting. Other compliance-oriented information, such as warning notices and why it is important to have these in place, will also be addressed. Also to be discussed will be the provisions of copyright law most relevant to nonprofit libraries. There will be ample time for Q & A in the final quarter of the program. So please come prepared with your questions! At the end of this session, participants will be able to:

- understand the nature of copyright: subject matter, exclusive rights, duration, etc.
- become aware of liability issues in copyright: direct, vicarious, and contributory infringement and basic “immunities” or remission provisions, in particular those available to nonprofit libraries
- be prepared to navigate the basic provisions of the copyright law and its related compliance obligations in practical settings, sections 108 and 109
- understand fair uses: basics and as applied in digital environments

## Section Programs

Monday, May 19, 4:30 p.m.–6:00 p.m.

### Federal Libraries Section

#### **Connecting with Administrators to Show the Value of Libraries and Librarians**

**Corporate Information Services Section; Department of Veterans Affairs Librarians SIG**

#### **Columbus G and H**

4:35 p.m.

#### **Connecting with Administrators: Demonstrating the Value of Library Services**

**Edward J. Poletti, AHIP**, Chief, Learning Resources Service, Central Arkansas Veterans Health Care System, Little Rock, AR; **Dixie A. Jones, AHIP**, Librarian, Medical Library, Overton Brooks VA Medical Center, Shreveport, LA; **Priscilla L. Stephenson, AHIP**, Chief, Library Service, G. V. “Sonny” Montgomery VA Medical Center, Jackson, MS; **Marvett S. Burns**, Medical Librarian, Medical Library, Gulf Coast Veterans Health Care System, Biloxi, MS; **Lola H. Purvis**, Chief, Library Service, VA Medical Center, Alexandria, LA; **Sara Blackwell**, Librarian Manager, Library Service, Oklahoma City VA Medical Center, Oklahoma City, OK; **Felicia Little**, Librarian, Library Section, Michael E. DeBakey VA Medical Center, Houston, TX; **Dianne B. Jones**, Library Technician, Library Service, G.V. “Sonny” Montgomery VA Medical Center, Jackson, MS; **Linton Swenson**, Library Technician, Library Service, Fayetteville VA Medical Center, Fayetteville, AR; **Sandra Todd**, Library Technician, Library Service, Muskogee VA Medical Center, Muskogee, OK

**Objective:** Library staff in a regional network initiated a collaborative project to demonstrate the value of library services to network management by focusing on three areas: (1) the value of information provided by literature searches through contributions to quality patient care and cost savings, (2) interlibrary loan cost savings, and (3) the cost efficiency of shared electronic resources.

**Methods:** During fiscal year 2007, literature search requesters each received a questionnaire regarding the effects of the information supplied by the libraries on their knowledge, patient care, costs, and time. The questionnaire was patterned on the one used in Marshall’s 1992 Rochester Study. Questions addressed pertinence; effects on patient care such as avoidance of adverse events, hospital admissions, patient mortality, and modes of treatment; time saved; and costs saved. Search recipients completed paper or online surveys, according to their preferences. Network library staff members were able to view all responses in an online spreadsheet. For the second area of focus, library staff compared interlibrary loan borrowing statistics with commercial document delivery costs and the average purchase costs for library materials. For the third area of focus, library staff evaluated the cost per use of the network’s shared electronic resources.

**Results:** Literature searches had an impact on the decision-making process of clinicians, including the fact that 45% altered and 77% reinforced mode of treatment, while 95% provided information useful to direct patient care. Cost savings of the search information was \$89,000, and time savings was equivalent to \$58,430. The interlibrary loans resulted in cost savings/cost avoidance, especially through cost avoidance of periodical purchases of over \$2,000,000. Selected virtual library resources were cost effective at a cost of only \$0.94 per search.

**Conclusion:** Results were presented to South Central VA Health Care Network (VISN 16) management demonstrating the value of library services. In the current health care environment, it is imperative that librarians educate administrators about the value of what they do so that these decision makers are fully informed and remain (or become) fully supportive of library services and the role that they play in the provision of quality health information for quality health care.

5:00 p.m.

#### **Bridging the Gap: Using Dollar Values to Demonstrate the Value of Library Services**

**Julia Esparza**, Clinical Medical Librarian, Department of Medical Library Science, Louisiana State University Health Sciences Center–Shreveport; **Donna Record**, Patient Financial Services Representative, Patient Financial Services, Deaconess Health System, Evansville, IN

**Objective:** Statistics have been used by librarians to track usage and show their worth. What is the result of using dollar values instead of statistics to provide a clear picture of worth to administration?

**Methods:** Administrators look at the bottom line. With this in mind from 2002–2006, the library assigned dollar values to each service normally provided to customers. The library then began to collect data and provide evidence of the dollar values of services provided to all customers of library services. These dollar values were used in combination with expense per unit of service (EUOS) at budget time to make the case for additional resources.

**Results:** From 2002–2006, dollar values were collected and utilized to show increase in services. As a result of these data, the library obtained a budget increase of 126% for interlibrary loan, books/subscriptions, and electronic fees budget lines. While electronic resource additions do account for a significant jump in those budget numbers, without electronic resources there was still a 39% increase in interlibrary loan and books/subscriptions budget lines. In addition to the dollar values reported to administration, EUOS was also tracked and reported to demonstrate value. By keeping EUOS from 1.86 in 2002 to 1.87 in 2006 the library demonstrated productivity with the increased budget.

**Conclusions:** By utilizing dollar values and EUOS librarians can bridge the gap between what administrators perceive the value of library services to be and what librarians actually provide.

5:25 p.m.

### **Demonstrating Effectiveness from Planning to Outcomes: One Regional Medical Library's Story**

**Betsy Kelly**, Assessment and Evaluation Liaison, Midcontinental Regional Medical Library, Washington University School of Medicine, St. Louis, MO; **Claire Hamasu**, Associate Director, Midcontinental Regional Medical Library, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

**Objective:** The MidContinental Regional Medical Library, committed to understanding and demonstrating the impact of its work, adopted outcomes-based evaluation strategies. Logic models provided a formal structure for program planning and activity reporting. Data derived from the reports were analyzed qualitatively and quantitatively. Quarterly and annual reports were built from the analyzed data to measure the organization's impact on improving health information access.

**Methods:** Each year librarians developed logic models, building off previous years' work. An online system collected information about and descriptions of activities carried out, tying the activities to the related sections of the logic model. Additionally, each year's data was coded for goals and outcomes addressed, activity type, and audience. The data were analyzed to discover how well the organization could plan the work to be carried out, which goals and audiences received the most and least attention from staff, areas where we could not anticipate needs for our time and expertise, and ultimately the impact the organization had on improving health information access.

**Conclusions:** Annual review of the model and the data allowed the organization to continue to move toward stated goals while retaining the flexibility to respond to changing needs. A picture emerged, becoming more clear each year, about how the organization contributes to improving access to health information in the region.

### History of the Health Sciences Section

#### **Interconnections: An Interdisciplinary Approach to Medical History**

#### **Veterinary Medical Libraries Section; Mental Health SIG**

#### **Columbus A and B**

4:35 p.m.

#### **A Philosopher's Medical Utopias: Ernst Bloch and the History of Medicine**

**Kevin O'Brien**, Acting Assistant Special Collections Librarian, Library of the Health Sciences, University of Illinois–Chicago

**Objectives:** Ernst Bloch (1885–1977) was an influential German philosopher whose life spanned much of the tumult of the twentieth century. His wide-ranging work centered around his concept of utopia, which he defines in part as the ability of human beings to create intimations of an existence free from social and other forms of limitations that confront them in their lives. While medicine was not a central concern of Bloch's philosophy, his

three-volume work *The Principle of Hope*, which is widely recognized as his masterpiece, contains a fascinating chapter titled "Medical Utopias." In this chapter, the first in the "Outlines of a Better Life" section, Bloch ranges widely over the history of medicine and discusses such figures as diverse as the early Greek physician Galen and the English political economist Thomas Malthus. In this talk, my purpose will be to show to what degree, if any, medicine and health contribute to Bloch's idea of human longing for a better existence.

**Methods:** I will discuss Bloch's life and his body of work and conclude by focusing on his discussion of medicine.

4:55 p.m.

#### **Artificial Hearts, Endoscopes, and Other Cool Stuff**

**Judy Chelnick**, Associate Curator, Division of Medicine and Science, National Museum of American History, Kenneth E. Behring Center, Washington, DC

**Description:** Researchers often overlook artifacts as a source of information as they investigate their subject matter. Artifacts like any other document such as a diary or laboratory notebook can expose the nuances of a society's beliefs, values, ideas, and attitudes. A historical artifact, such as the "Star Spangled Banner," the flag that survived the English bombardment over Fort McHenry during the War of 1812, not to mention the good intentioned folk in the late 19th century who clipped pieces of the flag and gave them away as souvenirs, possess an emotional quality that is not always tangible and cannot be measured. Whereas two pieces of molded plastic held together by a strip of Velcro, which is the Jarvik-7 artificial heart, the very same artificial heart implanted in Barney Clark twenty-five years ago this December and kept him alive for 112 days, evokes a morbid fascination. My talk, which will be supplemented by PowerPoint slides, will discuss medical artifacts as primary documents and explore ways in which the tools of the health care profession can be incorporated into the fabric of a research project.

5:15 p.m.

#### **Veterinary Medicine's Contributions to Human Health**

**Diane Fagen**, Librarian, AVMA Library, American Veterinary Medical Association, Schaumburg, IL

**Description:** Veterinary medicine is inextricably linked to human medicine. This presentation will examine historical examples of cooperation between the fields from the earliest days of organized veterinary medicine in the United States through the third decade of this 20th century.

5:35 p.m.

#### **Claudius Mayer and Frank (Bradway) Rogers: The End of the *Index-Catalogue* and the Origins of the Modern *Index Medicus*, a Personal History**

**Kathel Dunn**, Associate Director, National Network of Libraries of Medicine Middle Atlantic Chapter, New York University Medical Center–New York

**Description:** Claudius Mayer was the editor of the *Index-Catalogue* when the decision was made to discontinue it; Frank B. Rogers was the director of the library who made

the decision to cease publication. From the present day, the decision has the aura of inevitability: that the desire for current information quickly obtained was the obvious choice. For Mayer, however, the *Index-Catalogue* was a “perfect key” to the medical literature used by those who were thoroughly trained in medicine. The users of the *Index-Catalogue*, he would assert, expected to find “genuine gold...when they [took] the *Index-Catalogue* in their hands.” It was the historical nature of the *Index-Catalogue* that made it gold. The medical historian would use his knowledge of the past to make connections, synthesize and analyze current literature, and present both together as an integrated whole. This paper reviews the actions that immediately preceded the closing of the *Index-Catalogue*.

### Public Health/Health Administration Section

#### **The Role of Health Sciences Librarians in Applying Web 2.0 Technologies and Their Uses in Clinical and Public Health Practice and Instruction**

**Dental, Health Association Libraries, Nursing and Allied Health Resources Sections; Libraries in Curriculum SIG**

#### **Grand Ballroom A**

**4:35 p.m.**

#### **Creating a Roadmap: Web 2.0 and Local Public Health Practice**

**Gillian G. Mayman**, Informatics Librarian, Health Sciences Libraries; **Alison Grodzinski**, Communications Coordinator, Prevention Research Center of Michigan; **Nancy Allee**, AHIP, Deputy Director; **Whitney Townsend**, Liaison Librarian; **Anne Perorazio**, Information Resources Specialist; **Hung Truong**, University Library Associate; **Jane Blumenthal**, AHIP, Director; Health Sciences Libraries, University of Michigan–Ann Arbor

**Objective:** Identify the ways in which Web 2.0 technologies may increase the efficiency and effectiveness of local public health departments’ communication and information sharing.

**Methods:** A needs assessment of 2 local health departments, 1 urban and 1 rural, has been conducted using focus groups and an online survey. The survey was distributed to all public health workers at each of the 2 health departments in order to gather quantitative data to assess the knowledge, skill level, and use of Web 2.0 technologies in each department. Focus groups with leadership and administrators discussed perspectives on initiatives underway and how Web 2.0 technologies can benefit these initiatives. Focus groups with public health workers and staff discussed the work of each department and potential opportunities for integrating Web 2.0 technologies. Focus groups with IT personnel discussed current uses of technology, previous training, and other issues such as firewalls or Internet use guidelines.

**4:51 p.m.**

#### **Connecting Content to Readers: Marketing RSS as an Information Management Tool**

**Erika L. Severson**, Health Sciences Librarian; **Allan Barclay**, AHIP, Information Architecture Librarian; **Rebecca J. Holz**, Information Architecture Librarian; **Christopher Hooper-Lane**, AHIP, Instructional Services Coordinator; **Stephen M. Johnson**, Health Sciences Librarian; **Andrew Osmond**, Electronic Resources and Cataloging Coordinator; Ebling Library, University of Wisconsin–Madison

**Objective:** To educate the health sciences community about RSS feed readers as a tool to manage the multiple sources of information relevant to their professional needs.

**Program:** More and more journals are making content available via RSS feed. A working group at a Midwestern academic health sciences library set out in fall 2006 to develop a tool that would allow our patrons to locate feeds for our electronic journals, subscribe to them individually or as a bundled package, and edit them as needed in their preferred reader. As we worked on the project, it became clear that few of our users knew what RSS was, let alone were using tools such as feed readers. We created a corollary goal: to increase awareness, knowledge, and utilization of RSS to manage health information and research among our constituents. We then developed a marketing and educational plan that included open instructional sessions, such as brown-bags and hands-on workshops; course-integrated instruction targeted to receptive groups such as master’s of public health students, continuing medical education, and new residents; and improved online materials such as tutorials, video clips, and a more user-friendly website. This paper will discuss the marketing and education aspects of our program.

**5:07 p.m.**

#### **When You Can’t Use a Wiki Because of Security Issues, Try SharePoint**

**Linda J. Spadaccini**, Library Director, Health Center Library, Waterbury Hospital, Waterbury, CT

**Objective:** The purpose of this project was to develop an interactive area on the library intranet page where clinicians could post, interact, and read materials about patient safety. A wiki was considered a security risk for the hospital network, so an alternative had to be found.

**Methods:** The library is staffed by 2 medical librarians and serves a 258-bed teaching hospital. The library director was approached by the head of the obstetrics and gynecology department to assist them in providing a place on the library intranet page where patient safety materials could be found, discussed, etc. It was determined a wiki would be the most appropriate. After attending a wiki class and discussing the project with the hospital information services department, it was determined that a wiki would cause a security risk to the hospital network. Paid wikis were investigated but the cost and the limited number of users based on pricing models did not fit what was being sought. SharePoint by Microsoft was the product

that the library and the information services department finally agreed on. This site is now functioning and being used for the purpose it was made.

**Results:** The SharePoint site for Patent Safety is being used by many clinicians not just the obstetrics and gynecology department. A change was made after implementation that required all users to log in with their network login and passwords. The library continues to publicize the site.

**Conclusions:** SharePoint is similar to a wiki. Hospital security systems often prevent libraries from new technologies, but through a collaboration a solution for such a site was found.

**5:23 p.m.**

### **Second Life for Engagement, Outreach, and Building Interdisciplinary Communities of Learning**

**Patricia F. Anderson**, Senior Associate Librarian, Health Sciences Libraries; **Sharon Grayden**, Instructional Learning Senior, Dental Informatics; **Marc R. Stephens**, Multimedia Services, Medical School Administration; **Mark P. MacEachern**, Senior Associate Librarian; **Jane Blumenthal**, AHIP, Director; Health Sciences Libraries; University of Michigan–Ann Arbor

**Objective:** To review the effectiveness of various strategies for community building in an Second Life island founded by an academic health sciences center and the impact of these on real life campus collaborations.

**Methods:** Second Life, the most famous multiuser virtual environment, is increasingly utilized for education in various types of learning curricula. A medical school in a major academic health sciences center purchased a Second Life island to develop instructional alternatives for standard didactic instruction as well as innovative approaches for instruction content not possible in the real world. To maximize effectiveness and acceptance of these educational innovations, it was necessary to first create interest, generate excitement, and build skills among a cohort of faculty and students. The health sciences libraries took an active leadership role in this process. Approaches used for building learning communities included real world presentations, podcasts, orientations, tutorials, private meetings, and face-to-face classes, as well as web-based email groups, videos, and social technologies blended with in-world brown bag discussions, tours, lectures, and treasure hunts. The engagement with Second Life facilitated new connections, opportunities, and learning communities between medical, dental, and public health schools across campus.

**5:39 p.m.**

### **Teaching Medical Subject Headings (MeSH): Web 2.0 Style**

**Lauren A. Maggio**, Head of Library Education and Information Management; **David B. Flynn**,

Information Services and Education Librarian; **Megan Bresnahan**, Web Coordinator and Information Services Librarian; **Mary Blanchard**, Associate Director; **David Ginn**, Library Director; Alumni Medical Library, Boston University Medical Center, Boston, MA  
**Objective:** Annually, librarians teach the two-credit course, "Introduction to Biomedical Information." During one session, librarians teach Medical Subject Headings (MeSH) by using Web 2.0 models to contextualize the value of a controlled vocabulary for searching biomedical literature.

**Methods:** For academic year 2007/08, the average age of the students enrolled in the course is twenty-three years old. Like most individuals in this age group, these students use Web 2.0 sites such as YouTube and Flickr. Therefore, the library decided to integrate Web 2.0 into its lesson on MeSH through an indexing assignment, which requires that students use natural language to tag an article, image and movie clip. Students submit their tags prior to the in-class session using online forms. To stress the value of MeSH, the librarians then generate tag clouds to visually represent the frequency and variety of the submitted terms. At the end of class, students tag a new article and these tags are compared to terms assigned by the National Library of Medicine for the same article. The results from both tagging exercises are analyzed to evaluate the training. Ultimately, students come to understand the merits of controlled vocabularies through a familiar and dynamic Web 2.0 lens.

## Relevant Issues Section

### **Health Disparities: Chasm, Gap, or Bridge**

**Chiropractic Libraries, Consumer and Patient Health Information Sections; African American Medical Librarians Alliance; Lesbian, Gay, Bisexual, and Transgendered Health Science Librarians; Outreach SIGs**

**4:35 p.m.**

### **Health Disparities: Chasm, Gap, or Bridge**

**John Ruffin**, Director, National Center on Minority Health and Health Disparities, National Institutes of Health, Bethesda, MD

**Description:** John Ruffin will speak about health disparities and the progress made so far. As the director of the National Center on Minority Health and Health Disparities, one of the components that make up the National Institutes of Health, his insight and input will be invaluable to medical librarians who wish to be a part of the "Healthy People 2010 Goal 2 to help our nation eliminate health disparities among different segments of our population."

## Section Programs

Tuesday, May 20, 2:00 p.m.–3:30 p.m.

### 2008 National Program Committee

#### **Forging Connections to Emerging Research: New Technologies**

##### **Columbus K and L**

2:05 p.m.

##### **Building and Piloting a Customizable Knowledge Management Environment to Support Public Health Practice: myPublicHealth**

**Debra Revere**, Co-Investigator/Research Manager; **Parmit Chilana**, Graduate Research Assistant; Center for Public Health Informatics, University of Washington–Seattle; **Steve Helgerson**, State Medical Officer, Public Health and Safety, Montana Department of Public Health and Human Services, Helena, MT; **Sherrilynne Fuller, FMLA**, Professor, Center for Public Health Informatics, University of Washington–Seattle

**Objective:** Public health practice relies on fragmented information systems that do not provide the decision support capability or access to evidence-based resources required to respond to the many population health challenges facing public health today—from communicable disease epidemics, to environmental disasters, to bioterrorist events, to chronic disease control. Thus, a need exists to access critical information in real-time.

**Methods:** The long-term goal of myPublicHealth is the implementation of a successful knowledge management system that is tailored to the public health (PH) practitioner's information needs, work processes, and environment. To achieve this, a comprehensive understanding of the information needs, information-seeking behavior, and human-computer interaction of PH practitioners is needed. We employed a collaborative user-designer approach to build an interactive, customizable digital system to support the collection, description, management, and retrieval of PH documents, data sets, learning objects, software, and tools. Resources are organized for search and presentation by applying metadata standards, and access is made through a web-based interface. The system is being piloted in Washington and Montana for use at all levels of service—local, statewide, rural, and urban—for agencies to manage the collection, description, management, and retrieval of evidence-based information needed for PH decision making.

**Results:** Pre-pilot implementation feedback indicated that myPublicHealth's knowledge management system is a comprehensive, integrated approach to supporting PH practice by providing multiple resources available through a single access mechanism. Washington and Montana pilot testing and evaluation has three goals: research whether and how PH practitioners will adapt and customize myPublicHealth for their own knowledge management purposes, determine what content is most

needed by users in varying PH roles that will in turn inform continuing design of the customizability features, and understand how myPublicHealth can seamlessly be incorporated into the users' work environment.

**Conclusions:** We believe that a knowledge management system populated with a collection of resources driven by PH practitioner information needs, organized using an appropriate metadata scheme, and presented and accessed through a customizable interface will reduce time spent searching across and through materials. It will also enhance decision making and ultimately improve the overall quality of PH services.

2:21 p.m.

##### **MIsearch and PubMed: Assessing an Adaptive, Profile-based PubMed Search Tool**

**Marisa L. Conte**, NLM Associate Fellow; **Jean Song**, Bioinformationist; Health Sciences Libraries; **Nirit Glazer**, Graduate Student Assistant; **Barbara Mirel**, Associate Research Scientist, School of Education; **David States**, Director, Bioinformatics Training Program; University of Michigan–Ann Arbor

**Objective:** The objective of this study is to compare the performance of a locally developed third-party PubMed search tool to PubMed in terms of search success, user satisfaction, and search efficiency. Outcomes from this study will include evidence of the comparative strengths and shortcomings of the two search engines and suggest future improvements for the locally-developed tool.

**Methods:** The locally-developed search tool creates a user profile based on PubMed activity. The tool's classification algorithm compares the user profile with the full PubMed, predicts which articles would most likely match the user profile, and ranks these citations at the top of the result set. Health sciences librarians will execute searches on predetermined topics using both PubMed and the locally developed tool. Search results will be evaluated on the basis of elapsed time, relevant citations retrieved, and relevant citations missed by both search engines. Data will be collected from participant surveys and interviews and from the search logfiles. This study serves both as an important step in refining the locally developed PubMed tool and as a collaboration between librarians and informatics researchers. Librarians are essential to this project both as expert searchers and as professionals who understand their users' information needs.

2:37 p.m.

##### **Connections and Innovations in a Nursing Informatics Course**

**Lin Wu**, AHIP, Reference Librarian, Health Sciences Library and Biocommunications Center; **Cynthia K. Russell**, Professor; **Heather C. Templeton**, Student, College of Nursing; University of Tennessee–Memphis

**Objective:** This project sought to demonstrate the successful collaboration between a health sciences librarian and nursing faculty members in an innovative nursing informatics course aimed to increase information technology (IT) and information literacy (IL) attitudes, knowledge, and skills of nursing students.

**Methods:** Subjects were 70 first-year nursing students enrolled in a professional entry program in a state university health sciences center. "Informatics for Healthcare," a two-credit hour course, was delivered over a period of ten weeks to nursing students using face-to-face and online instruction methods. Faculty used topic discussions as an introduction to informatics concepts and technology resources, including plagiarism, American Psychological Association writing style, electronic patient records, Health Insurance Portability and Accountability Act, PDAs, and test-taking strategies. A WebQuest model was used to research clinical topics. Teams of students collaborated using wikis for clinical topics. In the weekly face-to-face class sessions, the librarian presented brief resource reviews. The IL sessions utilized several Web 2.0 tools, including wikis, podcasts, and web-accessible videos. A comparison of pre- and post-class surveys on IL documented changes in students' attitudes, knowledge, and skills toward IT and IL. A Likert scale was used to assess students' opinion in regard to the value and involvement of a librarian in the course.

**Results:** Pre- and posttest results of class modules demonstrated improved scores ranging from 14% to 69%. Students' responses to the post-class IL survey question, "Compared to when I entered the program, I feel more prepared and can be more successful in..." revealed agreements ranging from 68% to 95% on several IT and IL topics. There were also positive changes in specific knowledge-level questions, with increases of 25% to 34%. Students' feedback on introducing the health sciences librarian into the course was positive.

**Conclusions:** New students often consider their IT/IL competencies adequate, so it is important to provide opportunities for them to demonstrate their abilities as well as demonstrate the relevance of IT/IL content to their student and future nursing roles. The health sciences librarian can play an important role in helping students to learn to use library resources and to locate quality information for class assignments and projects.

3:09 p.m.

#### **Innovative Integration of Web 2.0 Applications to Enhance Library-based Bioinformatics Support**

**Kristi L. Holmes**, Bioinformatics Specialist; **Ellen Dubinsky**, Digital Projects Librarian; **Lili Wang**, Bioinformatics Specialist; The Bernard Becker Medical Library, Washington University in St. Louis School of Medicine, St. Louis, MO

**Objective:** The swiftly changing landscape of biomedical research in the genomic age, coupled with the emphasis placed on translational research initiatives, has inspired a paradigm shift in library-based bioinformatics support services. To successfully meet the rapidly changing needs of researchers, a number of innovative Web 2.0 applications and concepts have been incorporated into traditional research support services to promote learning and foster collaboration within this dynamic group of users.

**Methods:** A library-based bioinformatics support program was established to serve the research community at a ma-

ior academic medical research institution. In response to the evolving information needs of the clinical and biomedical research communities, especially in the age of translational medicine, advanced web-based networking, communication, and information dissemination tools have been incorporated into the library's traditional bioinformatics support services. These innovative research initiatives are flexible, and they embrace diverse learning styles, offering users the opportunity to interact with rich audio, video, and web-based content in a manner that is meaningful to them. Ultimately, these innovative approaches provide seamless access to a wide variety of information and instruction resources and enable users an opportunity to make meaningful connections with their data and the world around them.

**Conclusions:** Bioinformatics-related outreach and support efforts offer a unique opportunity to incorporate new Web 2.0 technologies in services offered to the research community. Evolving needs of researchers as a result of dynamic and diverse research directions necessitate an innovative approach to communication and support services. A website redesign, reflecting a "bioinformatics portal," affords an opportunity to implement a number of web-based applications in outreach and support efforts. This increased web presence has resulted in increased web traffic as well as increased interaction by the bioinformatics resource specialists with their community. The amplified web presence, application of Web 2.0 technologies, and development of "just-in-time" instructional resources are appreciated and widely used. Although work is ongoing, it seems that this approach not only promotes information dissemination, but may also promote collaboration and community building in a translational medicine research environment.

### Cancer Librarians Section

#### **Translational Medicine and the Library's Role**

##### **Clinical Librarians and Evidence-Based Health Care, Molecular Biology and Genomics SIGs**

#### *Columbus E and F*

2:05 p.m.

#### **Panel Discussion**

**Andrew Hamilton**, Senior Reference and Instruction Librarian, OHSU Library, Oregon Health & Science University-Portland

2:25 p.m.

#### **Panel Discussion**

**Terrance M. Burton**, Director, Health Sciences Libraries, Ebling Library, University of Wisconsin-Madison

**Description:** The panel will provide an overview of translational medicine: what it is and the impact it will have, followed by discussion of the role of the library in translational medicine in (particularly in Clinical Translational Science Awards) and across institutions. Case studies of library programs in clinical, research, and instructional

aspects of translational medicine will be featured, with an open discussion session to follow.

**2:40 p.m.**

#### **Panel Discussion**

**Jonathan D. Eldredge, AHIP**, Academic and Clinical Services Coordinator, Health Sciences Library and Informatics Center, University of New Mexico—Albuquerque

**2:55 p.m.**

#### **Panel Presentation**

**Carolyn Reid, AHIP**, The Frances and John L. Loeb Librarian of Medicine and Director, Samuel J. Wood Library and C.V. Starr Biomedical Information Center, Weill Cornell Medical College of Cornell University, Ithaca, NY

**3:10 p.m.**

#### **Q & A Session**

### Medical Informatics Sections

#### **Technologies in Teaching**

#### **Corporate Information Services, Educational Media and Technologies Sections**

#### **Regency Ballroom A**

**2:05 p.m.**

#### **Examining the Connections: Uses of Emerging Technologies for Web-based Instruction**

**Jaime Friel Blanck, AHIP**, Liaison and Outreach Services Librarian; **Stefanie Warlick**, Liaison and Outreach Services Librarian; **Anna Tatro**, Liaison and Outreach Services Librarian; Health Sciences and Human Services Library, University of Maryland—Baltimore

**Objective:** The goal of this paper is to report on a survey conducted to gather data on the emerging technologies and logistics involved in delivering innovative web-based education. Study results will prove useful in establishing best practices for building and implementing web-based distance education programs provided by health sciences libraries.

**Methods:** Preliminary input from library professionals engaged in existing distance education courses was solicited via email as a question building exercise. The results guided the design of a twenty-six-item survey focusing on: technology used in the development and delivery of on-line courses, technology support required, course content and assessment, background of educator, and amount of staff time devoted to distance education activities. The researchers developed the survey instrument and piloted it with local participants. Upon internal review board approval, the completed survey instrument was sent out nationally to the membership of selected professional associations and special interest groups via email lists involved with library instruction. Data analysis includes descriptive statistics and content analysis to detect trends in technology utilization among library distance education

programs. Additional correlational statistical analysis was used to determine the impact of these available technologies on instructional design and implementation.

**Results:** From the sixty total participants, survey responses revealed that most instructors relied on a spectrum of software and hardware applications to deliver educational content to dispersed students. Course management software applications and image capture software were highly noted for ease of use, both for instructors and students. Survey responses also included a number of recommendations for hardware and software technical capabilities. Instructors communicated a significant time commitment for creating and updating course content. Distance education courses expanded audience for library instruction to diverse populations such as soldiers in Iraq, people in isolated geographic locations, and students enrolled in distance education programs.

**2:25 p.m.**

#### **Connecting Library and Information Science Education with the Virtual World**

**Feili Tu**, Assistant Professor; **Patrick L. McLaughlin**, Graduate Assistant; **Matthew B. Landau**, Graduate Assistant; School of Library and Information Science, University of South Carolina—Columbia; **Paul R. Keefner**, Electronics Engineer, Robins Air Force Base, US Air Force, Warner Robins, GA

**Objective:** This paper reports on the development of a virtual reference department in the Second Life world to help students in an library and information science (LIS) education program connect with current web technology.

**Methods:** This program is the only advanced degree program in its geographic area accredited by the ALA. Its large distance education (DE) program serves several geographical areas through a hybrid of web-based and satellite-technology and on-site instruction to deliver a complete master's degree program. To enhance health sciences librarianship education, a virtual reference department has been created as an instructional aid. On-campus and DE students can conduct face-to-face reference transactions in Second Life world.

**Brief Description:** A simulated reference department helps students adapt web technology into practice. This instructional aid shows the influence of facilities (e.g., a 360-degree view reference desk with rotating signage) on services. Exterior and interior building designs, avatars (librarians and users), 3-D programming are also included, as are training programs and user policy development. The project team consists of a professor, two master's students in the LIS education program, and an engineering consultant recruited to assist with programming.

**Results/Outcome:** This project is ongoing. Students may make suggestions for improvements, which are evaluated by the project team. If they fit the environment, they are incorporated into the original design. Other faculty members in the same program have expressed their interest in using this facility to enhance their own instruction. Issues to be addressed regarding the facility and its uses

include: the purpose and design, environmental development and maintenance, financial issues, and classroom/user policies.

**Evaluation Method:** Students in a reference-related class during spring 2008 will be recruited to evaluate the development of this project. The methodology will include a survey and interviews.

**2:45 p.m.**

#### **Wimba Live Classroom: Virtual Connections**

**Alan T. Williams**, Education Services Librarian;  
**Kristine M. Hughes**, Education Services Librarian;  
**Virginia L. Stone**, Education Services Librarian;  
**Catharine S. Canevari, AHIP**, Associate Director and Head; Research and Education, Tompkins-McCaw Library for the Health Sciences, Virginia Commonwealth University–Richmond

**Objective:** This paper will describe the experience of the Tompkins-McCaw Library for the Health Sciences offering live bibliographic instruction to remote users and plans for future development.

**Methods:** Over the last two years, the Tompkins-McCaw Library has offered training using the Blackboard course management system to deliver comprehensive information literacy instruction to health sciences students enrolled in distance education and on-campus programs at Virginia Commonwealth University. The class has been expanded to include workshops taught using the Live Classroom, part of the Wimba Collaboration Bundle. During the class, one librarian delivers the lecture and pushes web content such as live screenshots of searching PubMed or using Refworks. The other librarian serves as a virtual floater, monitors the chat log, and troubleshoots technical issues. These classes are supplemented with tutorials, handouts, and quizzes that have already been developed for other modules of the class. Classes are promoted through announcements of live classes that are posted in the virtual classroom and sent to students already enrolled in the class. Announcements are also posted in the university events calendar, university training calendar, and marketed through flyers posted on campus bulletin boards. Blackboard automatically records usage statistics.

**Results:** Blackboard's Wimba Live Classroom tool allows the library to offer interactive instruction including audio lectures, push content, synchronous chat, and individual communication tools. The archives that are created provide an asynchronous training option and make the class available to a wider audience. A survey was created to gather feedback from the participants. When asked about the overall quality of the session, 83.4% of the participants rated the experience as either good or excellent while 94.1% said that they would take another Wimba Live Classroom session in the future.

**Conclusions:** The Wimba Live Classroom has been a successful tool for distance learning. The Blackboard Announcements feature has been a great marketing tool for the online classes. Plans are underway to expand the ser-

vices offered using this tool to include research consults, theme-based sessions, and office hours.

**3:05 p.m.**

#### **How Online Tutorials, Podcasts, and Blogs Transformed Librarians into Virtual Teachers**

**Josephine P. G. Tan**, Education and Information Consultant, Clinical Sciences, Library and Center for Knowledge Management, University of California–San Francisco

**Objective:** To utilize online learning technologies to broaden the range of a librarian's ability to teach medical informatics skills beyond the physical classroom. Online tutorials, podcasts, and blogs were created to replace librarian in-person instruction of medical students and to provide automatically archived medical literature searching tips that can be accessed online at the learner's convenience.

**Methods:** Librarians met with medical school faculty to review the effectiveness of librarian-led, in-person medical informatics computer lab sessions that followed an evidence-based medicine lecture. Student feedback indicated that the labs felt redundant based on what the faculty had covered in lecture. Librarians and faculty collaborated to create an interactive online tutorial to replace the in-person computer lab. Students rated the online tutorial's effectiveness. Librarians created similar online tutorials for other topics. The library's instructional technologies group made these tutorials available as downloadable podcasts on the library's website. A librarian also met with the associate director of a teaching scholars program. The librarian teaches an in-person workshop for advanced literature searching skills for medical faculty involved in educational research. The librarian created a blog providing tips from the in-person sessions and additional content related to medical education research topics.

#### Medical Library Education Section

##### **Only Connect: Education to Practice**

###### **Columbus G and H**

**2:05 p.m.**

##### **Putting the MLA Education Policy to Work**

**Joanne G. Marshall, FMLA**, Alumna Distinguished Professor, School of Information and Library Science, University of North Carolina–Chapel Hill

**Description:** Successful recruitment and retention of health sciences library and information (LIS) professionals will require the availability of effective master's level education as well as career-long access to continuing learning opportunities. MLA's newly revised educational policy statement provides educators and practitioners with guidance on *Competencies for Lifelong Learning and Professional Success* ([www.mlanet.org/pdf/ce/200705\\_edu\\_policy.pdf](http://www.mlanet.org/pdf/ce/200705_edu_policy.pdf)). In this session, the changing demographics in our profession will be used as the backdrop for reviewing the health sciences courses currently offered by LIS

master's programs and the extent to which the course content relates to the competencies identified in the MLA policy statement. Find out the answers to questions such as how many programs offer health sciences courses? How does MLA promote programs that offer such courses? How many faculty in LIS programs specialize in the health sciences? What continuing education opportunities are available? The initial review by Joanne Gard Marshall, FMLA, will be followed by a panel discussion.

**2:35 p.m.**

#### **Panel Discussion**

**Rick B. Forsman, AHIP, FMLA**, Senior Projects Manager, Office of Academic and Student Affairs, University of Colorado–Denver; **Jeffrey T. Huber**, Associate Professor, School of Library and Information Studies, Texas Women's University–Houston; **Teresa Jimenez**, Graduate Student, Graduate School of Library and Information Science, University of Illinois–Urbana-Champaign, Champaign, IL

**Description:** A panel of respondents and open discussion will follow the presentation by Joanne G. Marshall, FMLA.

#### Nursing and Allied Health Resources Section

#### **Connecting Libraries to Organizational Mission: Using Assessment to Strengthen the Library's Institutional Role**

**Hospital Libraries, Federal Libraries Section; Library Marketing SIG**

#### **Regency Ballroom B**

**2:00 p.m.**

#### **"Outcomes" Assessment: Moving from Inputs and Outputs to "True" Outcomes**

**Peter Hernon**, Professor, Graduate School of Library and Information Science, Simmons College, Boston, MA

**Description:** For many health sciences librarians, outcomes assessment represents a new way of seeing and thinking about their work and roles. Many libraries have traditionally focused on measures of inputs (facilities, staffing, expenditures) and outputs (productivity, collection size, gate count). This presentation examines metrics, seeking to clarify the difference between outputs and outcomes. There seems to be some confusion in the medical library literature regarding what constitutes outcomes. The discussion focuses on student learning outcomes, while simultaneously illustrating other types of outcomes.

**2:30 p.m.**

#### **The Academic Library's Perspective on Assessment and Institutional Role**

**James Shedlock, AHIP, FMLA**, Director, Galter Health Sciences Library, Northwestern University Feinberg School of Medicine, Chicago, IL

**Description:** Academic libraries are generally not challenged about their role in academe. Many academics still

believe that "the library is the heart of the university."

This presentation will offer observations and ideas on how to use assessment to strengthen the library's position in support of institutional mission. After reviewing what accrediting agencies say about the library's role in the health disciplines, we need to address the latest trend in assessment, which is an attempt to link between outcomes and success in achieving the institution's mission. Because measuring the library's role in outcomes is extremely difficult, the presenter will discuss substitute or temporary measures for outcomes, namely the value of benchmarks. Also, new assessment tools for library quality will be reviewed, based on several years of experience with LibQUAL+ surveys.

**3:00 p.m.**

#### **Quantum Physics and Hospital Library Assessment**

**Michele S. Klein-Fedyshin**, Manager of Library Services, UPMC Shadyside, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

**Description:** Assessing hospital library services starts at the molecule level. It reflects the surrounding atmosphere of the institution and requires energy to attain new quantum levels. Specific mechanisms for hospital library assessment, actual case studies, and an open assessment challenge highlight this talk. Electronic assessment, measurement for clinical care impact, and demonstration that libraries support the bottom line are featured. The implications of evidence-based practice and Magnet status for assessment conclude the discussion.

#### Pharmacy and Drug Information Section

#### **EMBASE.com Lecture: Medication Therapy Management**

#### **Columbus A and B**

**2:05 p.m.**

#### **Bring Medication Therapy Management (MTM) into Focus**

**Linda M. Strand**, Distinguished Professor, College of Pharmacy, University of Minnesota–Minneapolis

**Description:** The practice of medication therapy management will be discussed. The theoretical foundation for the practice as well as the development of the concept, in practice, will be explained. Federal legislation, state legislation, and private insurers all play a role in its development and implementation. The current state of the practice will be emphasized. The practice of medication therapy management will be placed in the context of pharmacy, medical, and nursing practice so that a logical understanding of the literature that surrounds the practice can be understood. Data from a large practice of medication therapy management will be presented so that the evidence supporting the practice can be understood. Controversies about terminology and practice guidelines will be presented. Issues that arise commonly in practice will be highlighted so participants become familiar with the most frequently asked questions about the practice.

Public Services Section**Liaisons: Our Live Links to Users*****Columbus I and J*****2:05 p.m.****Library Liaisons: Partnering, Connecting, and Engaging with Users: A Recipe for Success**

**Shannon D. Jones**, Head, Outreach Services; **Catharine S. Canevari, AHIP**, Associate Director, Research and Education; Tompkins-McCaw Library for the Health Sciences, Virginia Commonwealth University—Richmond

**Objective:** Over the last five years, Tompkins-McCaw Library services have grown to encompass a wide variety of outreach, education, and research support initiatives that have enhanced our ability to connect and disseminate information to our affiliated users. One of these initiatives is our liaison program, which has developed into the backbone of all of these services. This paper describes our core programmatic themes, the context in which they developed, and our methods for tracking, evaluating, and enhancing these services.

**Methods:** Six years ago, our library began focusing on developing new outreach and education programs to meet the needs of our affiliated users, who increasingly were accessing our resources from remote locations. A liaison plan was created and librarians were assigned liaison roles for specified schools and/or programs. A variety of services have been developed, including a scholarly circuit librarian program, theme-based lecture series, special interest groups, and special events like a technology fair. Liaisons also taught instruction sessions and participated in outreach activities targeted at their specified areas. Our revamped liaison program has supported improved understanding of user needs, promoted the integration of library research into the curricula, and kept users apprised of developments occurring at the library.

**Results:** Organizing outreach, training, and research support activities around liaison responsibilities has created more opportunities for liaisons to interact with their assigned departments.

**Conclusions:** Using the liaison program as the backbone of our services has helped to build liaison relationships by increasing their visibility.

**2:21 p.m.****Linking to the Informationist Concept: Defining New Training Models and Innovative Roles for the Liaison Librarian**

**Douglas L. Varner, AHIP**, Associate Director, Chief Biomedical Informationist, John Vinton Dahlgren Memorial Library, Georgetown University Medical Center, Washington, DC; **Nancy K. Roderer, AHIP**, Library Director, William H. Welch Medical Library, Johns Hopkins University Medical Institutions, Baltimore, MD

**Objective:** The library received a two-year grant from the National Library of Medicine to explore training models

and roles for the informationist in a clinical setting. This presentation will describe development of curriculum, practicum experiences, and a research project designed to train and define the role of a clinical informationist. The potential for liaison staff to redefine/expand roles to encompass components of the informationist model will also be discussed.

**Methods:** Curriculum was designed from courses at the institution in public health, basic sciences, and biomedical informatics. Three practicum experiences involved:

- attending rounds with internal medicine residents, providing advanced training in use of information resources, and appraising information relevant to clinical questions
- working with ophthalmology residents on grand rounds presentations and “mini-tutorial” presentations on topics relating to online research techniques.
- understanding the use of technology in a clinical setting including computerized physician order entry, electronic health record, and infobutton applications.

The research project involved recording and analyzing questions asked by the internal medicine residents during rounds. Question analysis included development of a descriptive taxonomy designed to provide an understanding of information need at the point of care.

**2:37 p.m.****Nursing Liaison Team: Making Connections Across the Education and Practice Spectrum**

**Cheryl A. Bartel**, Interim Head, Research, Instruction, and Collection Services; **Emily Brennan**, Health and Life Sciences Librarian; **Andrea Lynch**, Instruction Coordinator; **Rikke S. Ogawa, AHIP**, Emergent Technologies Coordinator; Louise M. Darling Biomedical Library, University of California—Los Angeles

**Objective:** To create a sustainable liaison model that effectively engages and educates nurses in support of evidence-based practice across the spectrum of graduate education through professional practice at an academic medical center.

**Methods:** The University of California-Los Angeles Louise M. Darling Biomedical Library’s primary clientele is spread among the schools of medicine, dentistry, and nursing; public health; the division of life sciences; multiple teaching hospitals; and many remote faculty. With limited numbers of library liaisons and a large primary clientele, the library developed a team-based liaison program to reach nursing students, staff, and faculty. A team-based liaison model affords flexibility in balancing liaison workloads and improves effectiveness by connecting faculty and staff across disciplinary lines. Key faculty-librarian partnerships established a sequential information literacy experience for graduate education. These partnerships also led to librarian memberships in the Clinical Practice Committee (CPC), a committee that composes evidence-based guidelines and continuing education units (CEUs) for nurses in the hospital.

**Conclusions:** Requests for repeat and new educational sessions for staff nurses and nursing students demon-

strate the success of the nursing liaison program. CPC participation and key faculty-librarian partnerships have steadily increased educational opportunities to these population groups. Through the CPC, library liaisons annually present this education and outreach model to nurses from other local institutions. This paper will discuss achievements and challenges of the program and review qualitative as well as quantitative data collected.

**2:53 p.m.**

### **Liaison Services for the Johns Hopkins Medical Institutions**

**Claire Twose**, Associate Director, Public Health and Basic Science Liaison Services; **Blair Anton**, Clinical Librarian; **Nancy K. Roderer**, Director; Welch Medical Library, Johns Hopkins University, Baltimore, MD

**Purpose:** To provide exceptional on-site, customized information services in research and clinical settings, emphasizing user collaboration and consultations with professional librarians and efficient access to digital resources through a distributed network of “information suites.”

**Setting and Population:** A large academic medical library serving research-focused schools of medicine, public health, and nursing and associated teaching hospitals and institutes.

**Brief Description:** The liaison program has assigned librarians to each department in the schools of medicine, public health, and nursing. Librarians provide a continuum of services supporting research, education, and clinical practice. Troubleshooting, resource recommendation, searching consultations and collaborations, and information management in support of publication efforts are only a few tasks supporting these endeavors. The overarching strategy focuses on the collaborations forged with departments and research centers, accomplished in part through the creation of “information suites.” Flexible iterations of a suite include shared, on-site physical space tailored to the needs of a group or a tailored digital resource, a scheduled office hour, in-person service, or a combination of these. The library has piloted several collaborations and has more under development. A database of liaison contacts has been used to monitor and evaluate the services.

**3:09 p.m.**

### **Take One Tier and Call Me in the Morning: Codifying Levels of Liaison Service**

**Michele R. Tennant**, AHIP, Bioinformatics Librarian, Health Science Center Libraries and UF Genetics Institute; **Linda Butson**, AHIP, Assistant Director Access and Outreach Services; **Nita Ferree**, AHIP, Reference Librarian; **Nancy Schaefer**, Reference Librarian; Health Science Center Libraries, University of Florida—Gainesville

**Objective:** This paper will discuss the rationale for and process of creating a codified list of required and discretionary services for an established liaison librarian program at the University of Florida Health Science Center

Libraries. The document, “Liaison Tiers,” will be presented as will examples illustrating how specific services were modified to accommodate budgetary or staffing fluctuations.

**Methods:** The established liaison librarian program was evaluated by clients and liaisons in 2004. Liaison responses revealed the need for a more prescriptive approach to services. Liaisons met to devise a codified list of service activities that would:

1. categorize possible services as either obligatory or discretionary
2. ensure equitable services to academic units
3. help liaisons say “no” to clients who want more than can be provided, given the library’s staffing and funding
4. remind library administration not to over-extend liaisons when initiatives arose
5. help identify services to suspend during times of budgetary/staffing fluctuations

All liaisons met to brainstorm and categorize possible services into four levels. The resultant “Liaison Tiers” document was formalized with library administration in July 2006.

**Results:** The “Liaison Tiers” document is a categorized list of liaison activities divided into four levels. Level 1 includes services required of all liaisons and is primarily informational and skill-building in nature. Basic services (level 2) are provided by liaisons based on their clients’ needs and willingness to participate. Level 3 services are more time consuming and subject knowledge-specific, and are provided at the discretion of the liaison. Liaisons at level 4 are funded by units outside the library and provide additional services requested by the unit.

**Conclusions:** The existence of the document has encouraged liaisons to act with confidence when dealing with clients and library administration. It has become a framework for appropriate services based on library/liaison situation and continues to be a viable tool ensuring timely and efficient response during staffing, funding, and administrative changes. It is anticipated that the document will also serve as a tangible guideline for liaison training.

### Veterinary Medical Libraries Section

#### **One Health—Rural, Suburban, and Urban Interactions Between Humans and Animals: A Collaborative Approach Between Health Care Programs**

**Columbus C and D**

**2:05 p.m.**

#### **The One Health Initiative**

**Roger K. Mahr**, Immediate Past President, American Veterinary Medical Association, Schaumburg, IL

**Description:** Roger K. Mahr leads a panel discussing the links between human and animal medicine, emphasizing the importance of interdisciplinary communication in identifying and minimizing threats to health.

2:30 p.m.

**Opportunities for Crossdisciplinary Reference in  
Medical and Veterinary Libraries**

**Diane Fagen**, Librarian, American Veterinary Medical  
Association, Schaumburg, IL

2:55 p.m.

**Opportunities for Librarian Participation in a Medical  
School Rural Health Program**

**Ellen Schellhause**, Health Sciences Librarian,  
Crawford Library of the Health Sciences, University of  
Illinois–Chicago, Rockford, IL

## Section Programs

Tuesday, May 20, 4:30 p.m.–6:00 p.m.

### 2008 National Program Committee

#### **Forging Connections to Emerging Research: New Horizons**

##### ***Columbus C and D***

4:35 p.m.

##### **A Calculator for Measuring the Impact of Health Sciences Libraries and Librarians**

**Barbara B. Jones**, Missouri Liaison, Health Science Library, University of Missouri–Columbia; **Betsy Kelly**, Assessment and Evaluation Liaison, MidContinental Regional Medical Library, Washington University, St. Louis, MO

**Objective:** Libraries have traditionally relied on circulation statistics, gate counts, reference questions, and anecdotal data to support budget requests. Public and state library valuation calculators currently available do not measure the impact of health sciences libraries and librarians. Calculators were developed to enable hospital librarians to determine the return on investment (ROI) and cost benefit of their libraries and services.

**Methods:** Several tools were created that calculate the value of library collections, resources and services. The simplest is a retail value calculator the librarian can use to demonstrate the replacement cost of the library and professional librarian. The second calculates the cost/benefit ratio (CBA), a number that finance professionals are comfortable with. The third tool is based on the cost and benefit valuations and calculates the ROI, the interest realized by the library's parent institution for its expenses in support of the library.

**Conclusions:** The retail value calculator was introduced to the health sciences library community in February 2008. Early testers were enthusiastic and included the results in information shared during budget discussions with decision makers. The CBA and ROI numbers are impressive even when very conservative costs and benefits are applied to the equations. Librarians can add these tools to their advocacy arsenals as they take a proactive stance in informing institutions about the hidden gem that is the library.

4:55 p.m.

##### **Health Information-seeking Behaviors of Older Adults: Results from an Interdisciplinary Institute of Museum and Library Services-funded Research Project**

**Mary Stansbury**, Associate Professor and Program Chair, Library and Information Science, University of Denver–Denver; **Ruth Ludwick**, Professor, College of Nursing, Kent State University, Kent, OH

**Objective:** The research question addressed in this paper is: How do knowledge and access variables affect older adults' decision-making about selecting and reading health information and seeking additional health information?

**Methods:** We used the factorial survey method in this Institute of Museum and Library Services-funded project to examine contextual factors that explain health information-seeking decisions of older adults. The factorial survey design, developed in the field of sociology and used in many other social science research settings, combines the use of vignettes with sample survey procedures. The vignettes are structured with multiple levels and types of independent variables randomly assigned to each vignette. Independent variables were chosen based upon their likely influence in a health information-seeking situation. Source and format of information, location (library, church, hospital, etc.), literacy level, and type of professional (librarian, nurse, physician, etc.) are examples of some of the independent variables used in the survey vignettes. Over 400 subjects age 60 and over in 8 counties in urban, suburban, and rural areas completed the survey instrument. Data were analyzed using regression analysis techniques. Results offer guidance on the potentially successful formats, sources, and presentation methods of health information for older adults.

5:15 p.m.

##### **Psychometric Instrument Evaluation for Understanding the Information Needs of Cancer Patients**

**Kalyani Ankem**, Associate Professor, School of Library and Information Sciences, North Carolina Central University–Durham

**Objective:** The aim was to evaluate instruments that were designed to measure the information needs of cancer patients. The purpose was threefold: (1) to identify rigorous instruments for understanding the information needs of cancer patients; (2) to demonstrate and encourage a process of selecting an existing instrument for research purposes, especially in the area of patient information needs, as opposed to designing ad hoc, in-house instruments; and (3) to guide the evaluation of instruments in the process of evaluating and selecting literature for evidence-based practice.

**Methods:** The selected instruments that were designed to measure the information needs of cancer patients had appeared in published literature over a period of ten years (1993–2003). To score the psychometric properties of the instruments, an instrument evaluation system developed at a university was utilized. Among other criteria, the evaluation system included a scoring system for analyzing various measures of reliability and validity: content, criterion, convergent, and discriminant validity. Noteworthy instruments evaluated were the Toronto Informational Needs Questionnaire-Breast Cancer (TINQ-BC), Patient Learning Needs Scale (PLNS), and Thurstone Scaling of Information Needs.

**Conclusions:** The TINQ-BC and Thurstone Scaling of Information Needs are reliable and valid instruments. The instrument evaluation system that was utilized to assess instruments is a functional tool. Existing instruments that were designed to measure patient information needs must be applied in data collection from patient populations.

5:35 p.m.

**Identifying the Implications of the Use of Electronic Resources and New Technologies in Academic Medical Libraries**

**Octavia-Luciana Porumbeanu**, Lecturer, Library and Information Science Department, University of Bucharest, Bucharest, Romania

**Objectives:** Identify the implications that the access to electronic information resources has at the level of the users of large academic medical libraries in Romania and report on the way these libraries use the new technologies to better meet the users' information needs.

**Methods:** Questionnaire-based study at the level of the users (students, teaching staff, residents, physicians, research scientists) of large academic medical libraries in Romania.

**Results:** 150 questionnaires were distributed to the 3 largest medical libraries in Romania. Despite the fact that access to electronic resources has been available since the 1990s, there are apparently no significant changes in user behaviour.

- 28% of respondents consulted databases and 16% e-journals. The majority (92%) still came to consult paper, especially books (41%). Their preference for print is clear (77%), only 10% preferring e-resources.
- 57% taught themselves how to use electronic resources, and 47% found information easily. 43% consider they needed assistance and 19% wanted better instructions.
- Benefits were: speed of access (43%), access to current research and better interfaces.
- Librarians felt e-resources gave: rapid information retrieval (43%), cross searching capabilities (24%), current awareness services (24%), cost and time savings (29%), and increased usage (24%).

**Conclusions:** A small number of library users surveyed prefer electronic information resources. Future research should investigate the reasons for this low usage.

Dental Section**Evidence Base: Web 2.0 for Professional and Clinical Productivity****Clinical Librarians and Evidence-Based Health Care SIG****Regency Ballroom A**

4:35 p.m.

**Social Technologies for Professional and Clinical Productivity**

**Patricia Anderson**, Emerging Technologies Librarian, Health Sciences Libraries, University of Michigan—Ann Arbor; **David Rothman**, Information Services Specialist, Medical Library, Community General Hospital, Syracuse, NY

**Description:** Social technologies, also known as Web 2.0, have become embedded in all walks of life. Health care consumers are using social technology to build communities as well as share health tips and news; practitioners

share clinical images and articles and ask for opinions on drafts; faculty use blogs and wikis and Second Life in education; lab directors use wikis for collaboration and presentations; and so much more! Libraries must not be left out when our communities move into new information spaces. Patricia Anderson and David Rothman partner in a session that both illustrates the underlying concepts of social technologies through audience participation, as well as providing practical real-world illustrations of the integration of blogs, wikis, Flickr, Twitter, Facebook, Slideshare, YouTube, and Second Life into library tasks, services, and outreach.

5:30 p.m.

**Q & A Session**Health Association Libraries Section**The Role of the Librarian in Health Literacy****Consumer and Patient Health Information Section; Lesbian, Gay, Bisexual, and Transgendered Health Science Librarians; Outreach SIGs****Columbus K and L**

4:35 p.m.

**Health Information Literacy Research Project: Results from the Hospital Administrator and Health Care Provider Survey**

**Sabrina Kurtz-Rossi**, Project Coordinator, MLA Health Information Literacy Research Project, Medford, MA

**Objectives:** The survey assessed hospital-based administrators' and health care providers' value of the consumer health information resources and services and the librarians who provide them. It also served as a needs assessment for the development of a health information literacy curriculum to be offered by librarians.

**Methods:** On September 6, 2007, an email inviting participation was sent to 7,655 hospital administrators and health care providers. A reminder email was sent on October 8, 2007. A total of 301 usable surveys from a representative national sample of hospitals were completed and analyzed.

**Findings:** The majority of respondents felt that providing patient and consumer health information resources and services is critically important to fulfilling their mission and something they are presently doing. This was particularly true for respondents with libraries in their facility. Nearly all respondents felt health information literacy can be improved by training staff to respond to patient health information literacy challenges. Ninety-five percent felt that offering consumer health information resources and services would improve health information literacy among patients. Nearly two-thirds said their librarians presently provide these services.

**Conclusions:** Results from the survey indicate that hospital-based administrators and health care providers value the role of librarians as key providers of health information literacy resources and services. More research is needed.

5:15 p.m.

### **One Size Does Not Fit All: Meeting the Health Care Needs of Diverse Populations**

**Karen K. Lee**, Senior Research Associate, Division of Standards and Survey Methods, The Joint Commission, Oakbrook Terrace, IL

**Objective:** Culture, language, and health literacy have a profound impact on communication in health care. How are hospitals addressing these issues? What systems do hospitals have in place to address communication issues? What resources are they providing to patients and staff? This paper presents a framework for establishing practices to meet the needs of diverse populations and includes a self-assessment tool that organizations can use to initiate discussions about the needs, resources, and goals for providing the highest quality care to every patient served.

**Methods:** The Hospitals, Language, and Culture study is a cross-sectional qualitative study designed to provide a snapshot of how sixty hospitals around the country are providing health care to diverse patient populations. Hospitals completed a self-administered questionnaire and participated in a one-day site visit, including interviews with administrative, clinical, and ancillary staff. The thematic framework presented in this paper is derived from practices that hospitals are currently employing to provide care and services to diverse patients. To adequately address effective communication, a range of practices spanning all four themes must be adopted in a systemic manner that is aligned with patient needs and organizational resources. To help organizations examine their own practices within this framework, a self-assessment tool will be provided that can be used to initiate discussions about the needs, resources, and goals for providing the highest quality care to every patient served.

5:35 p.m.

### **Librarians at the Point of Care: Connecting Clinic Patients with Information They Can Trust**

**Tracy E. Powell**, AHIP, Clinical Services Librarian, Lister Hill Library; **Lydia Cheney**, Program Manager for Cancer Education, Comprehensive Cancer Center; **Ty Howell**, Librarian, The Kirklin Clinic Patient Resource Library; **Lee Vucovich**, AHIP, Assistant Director for Reference Services, Lister Hill Library; University of Alabama–Birmingham

**Objective:** Bridging an information gap often requires a human touch. This paper describes a unique collaboration to provide professional library services to meet multiple health information needs of a diverse population of patients and families in a busy urban outpatient clinic. Librarians select electronic and print resources at all literacy levels so patients have the information needed to participate in their health care decisions.

**Methods:** The need for quality, on-site patient information services had been a recognized need in the academic medical center. The academic health sciences library, the University of Alabama–Birmingham Comprehensive Cancer Center, and the outpatient clinic joined in an in-

novative interdisciplinary collaboration and pooled the specialized resources of each to build a state-of-the-art patient resource library to provide trusted health information at the point of care. Prime real estate in the busy outpatient clinic, existing resources and professional staff from the cancer center, faculty librarians, and a wealth of electronic resources from the academic health sciences library combine to offer clinic patients and their families quick and easy access to medical information that is current, accurate, and easy to understand.

**Main Results:** Patients and their families have access to targeted, trusted information services at the point of care, the clinic has more health-literate patients, and the health sciences librarians are able to interact with patients and families in a convenient, welcoming, state-of-the-art setting.

**Conclusion:** Data gathered in the fifteen months of operation indicate that patients and families use the skills and resources available in the patient resource library to gather trusted information on a wide variety of disease and wellness issues.

### Nursing and Allied Health Resources Section

#### **Connecting Libraries, Nurses, and Accreditation/Credentialing Organizations to Improve Patient Care**

**Hospital Libraries Section; Outreach SIG**

*Columbus E and F*

4:35 p.m.

#### **Building a Bridge Between MLA and the American Nurses Credentialing Center (ANCC) Magnet Recognition Program**

**Melody M. Allison**, Assistant Biology Librarian, Biology Library, University of Illinois–Urbana-Champaign, Urbana, IL; **Margaret Bandy**, AHIP, Manager, Library and Media Services, Exempla Saint Joseph Hospital, Denver, CO

**Objective:** The American Nurses Credentialing Center (ANCC) Magnet Recognition Program and MLA share core values and goals that support nursing excellence and serve as foundations for collaboration. The MLA president and Board of Directors developed a goal of getting the 2008 revision of the *Magnet Accreditation Manual* changed to reflect librarians' essential contributions to the Magnet approval process.

**Methods:** Background includes connections made with ANCC through MLA's Nursing and Allied Health Resources Section (NAHRS)/Hospital Libraries Section (HLS) program activities in Phoenix 2006, call for reports of library involvement in the Magnet approval process, development of a working paper to analyze librarian's role in Magnet recognition criteria, and MLA Board motion for an MLA representative to the annual ANCC Magnet conference. In early 2007, the NAHRS and HLS Standards Committee chairs drafted a white paper and scenarios identifying shared core objectives of

MLA and the ANCC Magnet Recognition Program and proposed ways that MLA as a professional association and health sciences librarians in general could support these common core objectives. The white paper was approved by MLA's Board and submitted to ANCC. This narrative review will report on the white paper's impact and MLA representation at the annual Magnet conference.

**Conclusions:** The collaborative process of developing the white paper can serve as a model for future advocacy efforts. As reported by the ANCC contact to the MLA executive director in fall of 2007, "the role and potential contribution of medical librarians to the Magnet journey appears in two distinct sources of evidence in the current draft of the manual." The revised manual will be published in 2008 and at that time the final results of this effort will be revealed.

**4:55 p.m.**

**Nursing and Allied Health Resources Section and American Nurses Credentialing Center Magnet Accreditation: What's the Attraction?**

**Pamela J. Sherwill-Navarro, AHIP**, College of Nursing Librarian, University of Florida–Gainesville; **Margaret (Peg) Allen, AHIP**, Consultant, Peg Allen Library Consultant, Stratford, WI

**Objective:** This survey was designed to obtain information about knowledge-based resources, library services, and the role of librarians in facilities approved by the American Nurses Credentialing Center (ANCC) Magnet Program.

**Methods:** Members of a Nursing and Allied Health Resources Section (NAHRS) task force developed an online survey using SurveyMonkey. The survey link was distributed via the Magnet Coordinator electronic mailing list with the cooperation of ANCC, the Magnet accrediting organization. It was recommended that survey be completed by Magnet coordinators, the hospital's medical librarian, or whoever was most aware of the available library services and resources. A reminder was emailed again after 2 weeks. In the event of nonresponse, the Docuser database was used to identify a library contact for redistribution. All responses were then de-duped, with 162 responses representing 192 facilities (76.5% of 251 at time of survey). Content analysis of comments was performed in addition to the quantitative results.

**Results:** The 76.5% response rate was obtained after cleaning the data. When duplicate responses were obtained, the librarian response was used to tabulate quantitative findings. More than 84% of the facilities reported having Internet access on the floors and in the library; those without noted that access was inadequate. All of the Magnet facilities reported having access to a medical library, with the majority located on-site. On the Magnet journey, nurses collaborated with their librarians at 76% of the facilities. Librarian contributions varied as did the resources available to nurses. For content analysis, "others" were assigned to either the Magnet coordinator or librarian roles, and comments from both were merged into the data. In terms of support and integration of in-

formation services, nonacademic libraries proved more involved with the Magnet process than academic health libraries. Results were used to begin drafting model standards for all libraries serving the nursing profession.

**5:15 p.m.**

**Reconnecting Librarians with Nursing Accreditation: Key Results**

**Margaret (Peg) Allen, AHIP**, Consultant, Peg Allen, Library Consultant, Stratford, WI; **Pamela Sherwill-Navarro, AHIP**, College of Nursing Librarian, Health Science Center Library, University of Florida–Gainesville; **Melody M. Allison**, Assistant Biology Librarian, Biology Library, University of Illinois–Urbana-Champaign, Urbana, IL; **Susan K. Jacobs, AHIP**, Health Sciences Librarian, Elmer Holmes Bobst Library, New York University–New York

**Objective:** Accrediting organizations, including government agencies, are asking for evidence to support educational standards and accountability. The goal of this section project is to create evidence-based model standards addressing the role of librarians and libraries in nursing education and practice. This model will be shared with national accrediting organizations for nursing, with recommendations for placement in existing standards and model rules.

**Methods:** Background research includes: (1) Historical review of content in nursing standards that addresses libraries, librarians, evidence-based practice, information literacy, nursing informatics and lifelong learning; (2) historical review of professional organization collaborations between librarians and nursing, including Nursing and Allied Health Resources Section (NAHRS) and the Interagency Council on Information Resources for Nursing (ICIRN); and (3) integrative review of published nursing and library research on best practices that support nurses' health information literacy, access to knowledge-based information, evidence-based practice and lifelong learning. These reviews will be used as evidence for developing model standards using social networking tools (modified delphi process). Representatives of national accrediting organizations and ICIRN representatives will be invited to participate in the delphi process, along with members of the NAHRS Research and Standards Committees.

**Conclusions:** The reviews and Magnet coordinator survey results led to preliminary recommendations on standards, sent to the MLA board for their February meeting and to ICIRN for their March meeting. Their comments and those of NAHRS leaders are the basis for the Delphi survey in progress.

**5:35 p.m.**

**Nurse Practice Court: A Play to Aid Nurses in Evidence-based Practice**

**Sheila Hayes, AHIP**, Librarian - Knowledgebase Information Services, Library, Portsmouth Regional Hospital, Portsmouth, NH

**Objective:** Present a play to aid nurses in using their hospital library to support evidence based practice. Present

two sides of a nursing practice issue in a courtroom drama. Help librarians to understand some of the resistance issues for not using the hospital library by nurses.

**Methods:** A play in the form of a courtroom drama has been written and staged to illustrate in the person of a nurse defending the resistance to seeking knowledge-based information, but rather relying on experience and training alone to solve practice issues. The defendant is on trial in a real courtroom setting and is being prosecuted by an attorney who calls on an evidence-based nurse witness who uses the hospital library to add to her experience and training. The courtroom drama is authentic in characterization with a presiding judge, a court clerk, a court reporter, and a defense attorney. The court reporter is used as the person to engage the librarians in the audience to react to the issues raised that all librarians face in encouraging nurses to use the library for evidence-based practice.

**Results:** The play has been found to be a viable tool for educating nurses in the use of the hospital library to build evidence-based practice. The presentations of this play have been to varied audiences of professionals, culminating in 2007 with a presentation at the North Atlantic Health Sciences Libraries (NAHSL) '07 conference. The results of the NAHSL '07 participation in this play as a tool are being calculated and the results will be added as soon as they are available.

## Technical Services Section

### **Connecting to New Roles**

#### **Collection Development, Leadership and Management, Public Services Sections**

##### ***Columbus I and J***

**4:35 p.m.**

#### **Institutional Repository: The Bridge that Connects**

**Allyson Mower**, Institutional Repository Coordinator;  
**Joan M. Gregory, AHIP**, Librarian, Technical Services;  
**Mary E. Youngkin**, Librarian, Public Services, Spencer S. Eccles Health Sciences Library, University of Utah—Salt Lake City

**Objective:** This paper describes the process used by an academic health sciences library to transform and re-envision existing public and technical services roles to support the development of an institutional repository (IR).

**Methods:** Public services (PS) and technical services (TS) joined forces to develop new work flow practices to build the IR. A full-time PS faculty position was reassigned as manager, and many traditional TS tasks were moved to PS. This created an opportunity for TS staff to enhance their skills and retool for the responsibilities needed to build the IR, primarily a transition from MARC cataloging to Dublin Core metadata. Part-time PS staff were trained on digitizing techniques such as scanning, optical character recognition, and bookmarking.

**Results:** To help with the transition and to ease project management, an open-source workflow management

system, the University Scholarly Knowledge Inventory System (U-SKIS), was developed and made available on SourceForge.net. The system tracks an item from start to finish, records communication, and provides publishers' archiving policies that determine what items may be added to the IR. Part-time PS staff enter initial metadata, perform acquisitions tasks, and seek archiving permission from publishers. The IR coordinator checks record quality and transfers it from U-SKIS to the IR software (CONTENTdm). TS staff then use CONTENTdm to finalize metadata and approve the item for the collection.

**Conclusions:** During the 2007 calendar year, over 4,700 items were processed, digitized, assigned metadata, and added to the collection, including approximately 1,700 theses and dissertations. Re-envisioning public and technical services roles to support the development of an IR is possible through coordination, training, and use of a workflow system.

**4:55 p.m.**

#### **Entering Their World: How Can Catalogers Aid Electronic Medical Record Development?**

**Nadine P. Ellero, AHIP**, Intellectual Access Librarian, The Claude Moore Health Sciences Library, University of Virginia Health System—Charlottesville

**Objective:** Technical services librarians and especially cataloging librarians have many skills that can be used to pursue new roles and connect academic health sciences librarians more formally with the larger enterprise of a hospital or medical center. Database knowledge and maintenance, standards, and reference linking are some of these skills. This paper will report on the challenges and opportunities discovered when a cataloging librarian was asked to join an electronic medical records subcommittee that was commissioned to improve a nascent electronic medical records system. Entering a work culture that was/is closer to patient care and corporate concerns, this cataloging librarian learned firsthand the dynamic work of quality assurance for patient safety and enterprise financial integrity.

**Methods:** The cataloging librarian attended intensive weekly meetings for the duration of two months. Early in the process, the cataloging librarian met with a physician for quick training in hospital records documentation and coding. This study examines the analysis and work required to enhance a newly emerging electronic records system and will include lessons learned by both parties and future opportunities. A review of the literature will also be included to frame and support conclusions and observations.

**Results:** The cataloging librarian, as a member of the documentation task force, conducted an inventory of all hospital clinical documentation for the standardization of document naming and indexing. The inventory process included the creation of clinical document types and associated data elements. These document types included history and physicals, periodic assessments, letters, etc., and were created to facilitate the categorization of clinical documents and organization in the hospital's

electronic medical record system (GE Centricity). The cataloging librarian needed to learn the key components of medical records and how they are created and used, while the clinicians needed to learn the basics of databases, record structures, and data standards. All of these activities comprise an evolving role for a cataloging librarian and one that will require continued observation of a new work environment and education in a specific hospital electronic medical record system and clinical vocabularies.

5:15 p.m.

**From Copyright to Rights Management: Partnering for Success**

**Ruey L. Rodman**, Associate Professor, Emeritus;  
**Pamela Bradigan**, Associate Professor and Associate Director; **Lynda Hartel**, Assistant Professor and Head, Resource Management and Technical Services, John A. Prior Health Sciences Library, The Ohio State University–Columbus

**Objective:** This paper identifies key internal and external partnerships and expanded staff roles established by a health sciences library copyright management office (CMO).

**Methods:** The health sciences library established a CMO in September 2005. The CMO's opening mission was to educate faculty, staff, and students about copyright law principles and to process basic copyright permissions. The head of the CMO immediately recognized the need

to move beyond these activities to create strong partnerships with library public and technical services staff as well as other departments across the campus. The authors will provide a statistical overview of CMO operations and present examples of internal and external partnerships established in areas of education, collection development, and rights management. The CMO's role in connecting customers to persons with appropriate expertise, such as those in rights management and technology licensing, will be highlighted.

**Results:** The CMO has identified several trends over the past two years in its educational offerings, permission processing, and cooperative endeavors. The educational programs have expanded to include presentations on plagiarism, authors rights, open access, and commercialization in addition to those focused specifically on copyright. A part-time permissions associate initiates and tracks the requests to use copyrighted materials. Cooperative endeavors between the CMO and resource management on licensing products like Images MD have been very beneficial. Cooperative efforts between the CMO and the technology licensing and commercialization office have met information needs on intellectual property concerns.

**Conclusions:** The Prior Library created the CMO to meet educational objectives regarding copyright. CMO activities have grown to include related areas like authors' rights, public access, and intellectual property. Customers have responded positively to this new service.

2

**An Overlap Analysis of Occupational Therapy Electronic Journals Available in Full-text Databases and from Subscription Services**

**Judy L. Schroeder**, Health Sciences Librarian, Frey Foundation Learning Center, Grand Valley State University, Grand Rapids, MI

**Objective:** To convert occupational therapy journal subscriptions from print to electronic, a university library, in collaboration with its occupational therapy program, will compare full-text databases and journal subscription services. This comparison is designed to identify the best combination of databases and individual subscriptions for the highest number of electronic titles and the best years of coverage for each title.

**Methods:** This project will take place at Grand Valley State University, Grand Rapids, MI, which has colleges of nursing and health professions. Faculty and interlibrary loan requests will be consulted for a core list of occupational therapy journal titles. Databases offering full-text articles will be subjected to overlap analysis in Serials Solutions to identify those with the best coverage. Individual titles will be identified in subscription services by consulting *Ulrich's Periodicals Directory* and EBSCOhost. The researcher will generate lists comparing occupational therapy journal titles and years of coverage for each title in each database and subscription service. Various combinations of database and individual subscriptions will be examined for the best electronic journal coverage. Also considered will be the most cited journals and coverage for the nursing and allied health programs, as well as cost and dependability.

**Conclusions:** Although electronic coverage of occupational therapy journals can be found in most allied health or medical databases, no one database is comprehensive. The best electronic coverage occurs with the combination of two databases supplemented by individual subscriptions, which cover most of those titles identified on the core list. Because one-third of all cited articles appear in three journals, it is recommended that the primary database source include at least one of these journals. The second database pairing can be either allied health or medical databases, depending on other journal needs. Identified are databases and subscription services with titles, years, and numbers of occupational therapy journals in each, including the total number of most cited journals and journals indexed in OTSearch. Overlap analyses are given for key database pairings including recommendations for the best databases, journal count, convenience, and subject coverage.

4

**Closing the Divide to Achieve Bibliographic Consistency Among Three E-journal Access Tools**

**Erica R. Powell**, AHIP, Director of Technical Services, Louis Calder Memorial Library, University of Miami Miller School of Medicine, Miami, FL

**Objective:** To evaluate previous practices and develop appropriate procedures to ensure that the frequent additions, changes and deletions to the medical campus' e-journal subscriptions are accurate and agree among the three primary online access points: the online public access catalog (OPAC), the A to Z E-Journals List, and our DOCLINE file.

**Methods:** In 2007, after purchasing several large journal backfiles from major publishers, the interlibrary loan department noted that information on holdings and availability of the library's 8,000 plus e-journals were not consistent among the 3 main access points; the OPAC, the A to Z E-Journals list, and DOCLINE. An investigation documented that a communication gap existed among the different library departments responsible for updating the 3 access points. Information was not being routinely shared and communicated to all departments. The librarians involved in the current process met over a 3-month period to discuss, clarify, and outline the current procedures in each departmental area. A flow chart was developed to illustrate work patterns and identify communication gaps from a variety of scenarios. Procedures were implemented to close the existing divide and are currently under evaluation.

6

**Creative Partnerships: Collaborative Approaches to Cost Sharing**

**Eric A. Rector**, Head of Collections Management; **Alexa A. Mayo**, AHIP, Associate Director for Services; Health Sciences and Human Services Library, University of Maryland–Baltimore

**Objectives:** Through creative campus partnerships, the library has been able to stretch our budget and make more resources available to our community. The goal of these partnerships is to share the costs of licensing campus-wide resources and identify new avenues for marketing. The library has also collaborated with others to offer online resources—for a fee—to alumni and affiliates.

**Methods:** The poster describes three collaborative approaches to the cost sharing and marketing of new resources. In one model, the cost of campus-wide resources was shared among university schools and the library. The licenses were managed by the library, and services staff provided product training and support. In a second model, the library tested the usefulness of online resources by working with the campus community to evaluate resources through pilot programs. The library funded the resource for one year and assessed its use. In the third model, the library designed a package of online resources for alumni and volunteer faculty that was then marketed with the help of other units on campus. The poster will report on the successes and challenges in each model and describe the campus relationships that proved valuable to each project.

**Conclusions:** The poster will report on the methods used to evaluate the shared-cost subscription to RefWorks, the Primal Pictures pilot project, and the ProQuest alumni

and affiliates database package. Outcomes of these evaluations will be discussed.

8

### **Only Connect the Consumer and the Evidence! Involving Patients in the Creation of a Patient Information Website**

**Andrea Lane**, Information Specialist Manager, BMJ Knowledge, BMJ Publishing Group, London, United Kingdom

**Objective:** To show how the gap between consumer needs and provider expertise can be bridged by providing high-quality information based on medical research with influence and contribution from patients. The BMJ Publishing Group launched a website offering a patient version of an evidence-based clinical resource. Patients were fully involved so that the website was trustworthy, useful, and readable.

**Methods:** Consumer involvement happened in three ways:

- Shaping the direction of the website: This was achieved by having an advisory panel and focus groups.
- Planning new topics and updates: We created patient condition panels who liaised with our editors and helped decide what questions to search for, what treatments to include, which outcomes were important to patients, the best language to use, and myths and misconceptions to address.
- Published patient experience: The information specialist team searched for published studies of patients' and carers' views on how it feels to have the condition, experience of treatment, and impact of illness on quality of life. These sources were used to help develop the topic.
- Reviewing topics: Patient advisors and at least one patient group reviewed all draft content. The website designed a semi-structured questionnaire to capture this feedback.

**Conclusions:** The website (BestTreatments) launched over five years ago and is now accessible in both the United States and the United Kingdom. We collect feedback through the website and use it to inform improvements and future topic selection. Readers also have the opportunity to rate the usefulness of every page; this is collected and reviewed weekly. BestTreatments is intended to both help patients understand their illnesses and explain the complexities of treatments. Patient involvement from the start was not only essential to make it work but also enriches the content.

10

### **Website Usability Testing Using Camtasia Software**

**Caryn L. Scoville**, Information Services Librarian; **Rachel A. Schaff**, Graduate Library Assistant; **E. Diane Johnson**, AHIP, Head, Information Services; **J. Otto Lottes** Health Sciences Library, University of Missouri-Columbia

**Objective:** Testing websites for usability, the ease in which user goals can be accomplished on a website, is of utmost importance in designing or redesigning a website. We will

examine the effectiveness of using Camtasia, a tool typically used by libraries for capturing audio and video for web tutorials, for recording usability test information.

**Methods:** We will use Camtasia to record audio and video of website usability testers as they perform tasks on health sciences library web pages. We will ask health sciences library users to find or do things (e.g., find the adverse effects of the drug fluoxetine) on our web pages and we will record what they say and what they do via Camtasia. We will attempt to collect audio and video via Camtasia in a format that can be easily-disseminated to stakeholders and web designers.

**Results:** Camtasia is an effective tool for recording audio and video of usability tests. There were some issues with file format and sharing the usability test information with others, but those problems were overcome.

**Conclusions:** Usability testing is imperative in designing an effective website. Camtasia is a cost-effective tool to record usability test information. Audio and video from the Camtasia software can be shared with stakeholders to identify usability issues and inform page improvements.

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### **Collaborating to Bridge the Gaps in Educating Patients and Families**

**Barbara S. Reich**, AHIP, Director, Medical Library, Samuel and Sandra Hekemian Medical Library; **Karen DellaFave**, Education Specialist, Department of Clinical Education; **Deborah Magnan**, AHIP, Associate Librarian, Samuel and Sandra Hekemian Medical Library; Hackensack University Medical Center, Hackensack, NJ

**Objective:** In an effort to centralize access to patient education material throughout the institution, library staff at Hackensack University Medical Center worked with the Patient and Family Education Committee (PFEC) to design and implement a database of patient education materials. All such materials developed in-house are now accessible to all hospital staff, twenty-four hours a day, seven days a week.

**Methods:** This cross-disciplinary project used an iterative process that involved collaboration between these two departments at each step. A list of possible fields for the database was constructed and reviewed to ensure all necessary information was included. A preexisting form for submission of patient education materials was revised to include information needed for the database record. The database was built as a collection in the library's integrated library system (ILS). Utilizing the features of the ILS, specialized fields and instructions for data entry were developed to fully capture all important facets related to these documents. The database was designed to eventually need minimal input from library staff. Procedures for data entry were developed to assist PFEC staff to enter materials into the database. When appropriate and permitted by copyright, full-text PDFs of materials were included.

**Results:** The outcome is a robust, easily searchable database that allows house-wide access to all approved in-

house patient education documents for the first time. Features incorporated in the database include intended audience, targeted population and the capability to generate reports of items that are nearing their review dates. Materials are in the process of being translated into Spanish, allowing staff easy access to approved language materials for their patients. The PFEC has planned various marketing strategies to promote use of the database, which is accessible from both the committee and the library intranet sites. It is anticipated that the project will be broadened in the future to include all approved materials, including those purchased from outside vendors.

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#### **Implementation of SFX and MetaLib in a Multihospital Health Care System**

**Vicki Budzisz**, Systems Analyst; **Brenda Fay**, Librarian; Aurora Libraries, Aurora Health Care, Milwaukee, WI

**Objective:** In late 2006, when the number of journals available in our homegrown A-Z solution was no longer easily manageable by our library staff, and the technology behind it was no longer supported by our IS department, we decided it was time to move to a third-party, web-hosted A-Z product. At the same time, we were also seeking a more simplified, "Google-like" solution for our users to simultaneously search our purchased electronic resources. So in early 2007, after several months of trials and demos, we chose to jointly purchase and implement two ExLibris products: SFX and MetaLib. Because there are not many hospital libraries that are using SFX and MetaLib in their institutions, this is a brief description of the "jumpstart" implementation process, the hurdles we encountered with each product, and a commentary on some of the issues that may be unique to a hospital/health care library setting rather than an academic library setting where these two products are used more frequently.

**Methods:** Notes and email correspondence with ExLibris and library staff feedback were collected and organized. A chronological timeline was created, issues were identified, and the pros/cons for both products were listed.

**Results:** The first six months of 2007, the systems librarian spent nearly 80% of her time working on the setup of SFX and MetaLib. Nevertheless, it was well worth purchasing the "jumpstart" implementation process because the set-up process was fast-tracked for non-SFX experienced librarians and there were a myriad of technical set-up options that were offered, discussed, and set up by the ExLibris librarians. We encountered a number of problems with our MetaLib set up and were disappointed with the short list of medical resources that could be searched and retrieved in the MetaLib interface. We could not perform full federated search functions on the following subscribed databases: ADA Nutrition Care Manual, American Academy of Pediatrics, Books@Ovid, DXPlain, Micromedex, Natural Medicines Comprehensive Database, Primal Pictures, and UpToDate. SFX also had some lapses in medical/nursing titles, and we had to wait to have them added to the SFX database.

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#### **Missing Links: Eroding Citations in Two Medical Library Journals**

**Maureen Watson**, AHIP, Optometry Librarian, Michigan College of Optometry Reading Room, Ferris State University, Big Rapids, MI; **Gale Oren**, AHIP, Associate Librarian, Kellogg Eye Center; **Alex Watson**, Student, School of Information; University of Michigan—Ann Arbor

**Objective:** To assess how many bibliographic citations in a sampling of *Journal of the Medical Library Association (JMLA)* and *Medical Reference Services Quarterly* issues are websites (URLs). To discover how many of these links are broken, that is, no longer lead to the intended site. To discern what type, or domain, of websites are the most likely to have broken links.

**Methods:** The references from the articles in the first issue of the *JMLA* and *Medical Reference Services Quarterly* from 2007, 2004, and 2001 were studied to find out how many citations referred to websites (URLS) and how many of the website links were still active. Only references from articles and brief communications were reviewed, not editorials, etc. Once the broken links were identified they were broken up into .edu, .gov, .org, .com, and other. "Other" included .net, mistakes, and sites from foreign countries. If a link did not work, it was determined why it did not work and if it could still be found easily or not.

**Results:** The expected results of this study are that the more recent the journal issue studied, the higher percentage of references will be websites (URLs) and that in every issue studied from each of the two journal titles a certain percentage of links will be broken, no longer taking users to the intended websites. The percentage of broken links would increase as the age of the article in which they were cited increased. However, there would even be broken links in the 2007 issues. Also, the .gov domains would be the most stable.

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#### **Bridging the Electronic Journal Gaps: Just How Far Back Can the Collection Go?**

**Betsy A. Appleton**, Digital Serials Integration Librarian, Serials Department; **Kathe S. Obrig**, Associate Director, Collections and Access Services; Himmelfarb Health Sciences Library, George Washington University, Washington, DC

**Objective:** A necessary library move to significantly smaller space influenced the library to investigate the possibility of a collection that required virtually no physical space to house. The library had just completed a format move from print with some electronic, to largely electronic-only for all titles from 1995 forward. The costs of a total serials backfile conversion and the availability of all needed backfiles were assessed to determine the feasibility of such a move to a fully electronic serials collection with no accompanying loss of content.

**Methods:** A title-level analysis of the serials collection was undertaken to assess if such a change was even possible. A spreadsheet was created to identify backfiles the library

already owned (as a few had already been purchased), titles that had online backfiles available for purchase, and titles that had no online backfile availability. Prices of available backfiles and the amount already expended for owned backfiles were analyzed, as well as the ongoing cost commitment of the library.

**Results:** The results of this analysis revealed that 15% of the print collection was represented in currently owned backfile holdings. Another 21% is currently available for purchase. For 63% of the print collection, backfiles are currently not available. The 21% available for purchase would cost a mid-sized, university health sciences library such as ours an estimated \$875,000. These results suggest that under 40% of health sciences journals have online backfile coverage from 1980 to present. Collecting electronic backfiles for titles that currently offer them may not be a cost-effective use of limited library resources. At this time, full electronic conversion to backfiles for titles retained in print is not feasible for our entire collection.

**Conclusions:** Future implications include monitoring the growth of electronic backfile availability, as well as monitoring the costs of backfile collections to track future purchase feasibility. Cost comparisons of maintaining bound print versus electronic backfile collections may also prove useful.

## 20

### **Losing Remote Access to a Point-of-care Resource: What Are the Impacts on Library Portal Use?**

**Mary Beth Schell**, Librarian; **Adam Dodd**, Web Development Librarian; North Carolina Area Health Education Center Information and Library System, Health Sciences Library, University of North Carolina-Chapel Hill

**Objective:** To investigate how the loss of remote access to an online point-of-care resource has impacted the overall frequency of use of a statewide health sciences library portal and to measure the usage patterns of other resources found in the portal as a result.

**Methods:** The library portal studied provides statewide access to health information resources for health care professionals. This study focuses specifically on medical residents, preceptors, and faculty. This study utilized longitudinal analysis processes to measure usage patterns for resources housed in the library portal. This study employed standard statistical methods to examine resource usage before, during, and after the remote access subscription period for UpToDate, the point-of-care resource in question. The study focused on the numbers of portal authentications, the numbers of resources accessed, the specific resources accessed, and the types of users accessing the resources during the three timeframes under study.

**Results:** Portal usage dropped during the months remote access to the point-of-care product was lost, but an analysis of portal use without the inclusion of the point-of-care product indicates a continued monthly and annual rate

of growth over previous years. Three indicators were employed for measuring use: proxy server access, number of visits to resources, and number of authentications. All measures exhibited a drop of approximately 9% in the 5-month time period after the loss of remote access to the point-of-care product. A snapshot of portal use with the exclusion of the point-of-care resource across the time period paints a contrasting picture. The overall use of the portal grew at an average of 30% between 2006–2007. An analysis of overall portal use for the same time period, excluding the point-of-care product, reveals a more gradual 27% growth rate.

## 22

### **Why Develop Knowledge Management Resources?**

**David B. Goolabsingh**, Director for Systems and Interlibrary Loan; **Suzetta C. Burrows, AHIP**, Director for Library Operations; **Mary Moore**, Executive Director; Louis Calder Memorial Library and Biomedical Communications, University of Miami Miller School of Medicine, Miami, FL

**Objective:** Perform an assessment of the library's seven web-based knowledge management (KM) tools to determine (1) the return on investment of the huge investment of time and effort required to develop and maintain them and (2) if the creation of the KM tools is a worthwhile endeavor for libraries.

**Methods:** Document the current costs of the library's seven web-based KM resources and determine the percentage of the library's total current expenditures for web-based knowledge resources the KM costs represent. Document the current usage of the seven KM resources, and determine the percentage of the library's total current website usage the KM resources represent, using WebTrends data generated and maintained by the library. Document the impact and usefulness of the KM resources to the library, school and community.

**Results:** The costs of developing and maintaining KM resources are supported by existing personnel and equipment, while the costs of purchasing and maintaining other knowledge-based web resources exceed \$1.35M. Local KM resources represent 14.7% of all library web page views. The KM resources provide comprehensive, current, searchable information on spinal cord injury and traumatic brain injury for patients and providers that support the school's Model Spinal Cord Injury Center and Miami Project to Cure Paralysis; current, local information on AIDS providers, services, and clinical trials that supports the school's Comprehensive AIDS Center; archival and full-text information on four internationally known physicians; and lectures of local influential people of medicine.

**Conclusions:** Although complete total ownership cost could only be estimated, investing time and effort developing and maintaining KM resources was easily justified. Libraries are positioned to convert knowledge in print and archival formats into organizational and world-wide knowledge, via the Internet.

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### Web 2.0 Tools in Medical and Nursing School Curriculum

**Trey Lemley**, Information Services Librarian;  
**Judy Burnham, AHIP**, Director; Charles M. Baugh  
Biomedical Library, University of South Alabama–,  
Mobile, AL

**Objective:** The purpose of this study is to investigate the extent to which social networking tools are being used in the curriculum of medical and nursing schools.

**Methods:** A questionnaire was developed to determine the extent of the use of social networking tools in the curriculum of medical and nursing schools. The questionnaire was sent to the DR-ED email list, to the American Association of Colleges of Nursing Instructional Leadership Network email list and to the Association of Academic Health Science Libraries (AAHSL) email list, asking the AAHSL participants to forward to those responsible for curriculum at their institution. Results from the questionnaire were analyzed to determine the extent of the use of Web 2.0 tools in the curriculum of health science schools, using descriptive analysis.

**Results:** The majority of respondents involved in medical school curriculum are not currently using Web 2.0 tools, and those that are, are using them in campus-based courses. The majority of medical school respondents are using the tools personally. About one-half of the respondents involved in nursing school curriculum are using the tools both for online and on-campus classes. The majority of nursing school respondents are not using Web 2.0 tools for personal use.

**Conclusions:** Web 2.0 tools are slowly being introduced into the curriculum of medical and nursing schools for a variety of uses. Health sciences librarians have the opportunity to work with the faculty to encourage use of these tools for better collaboration.

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### Facebook as a Tool for Health Education

**Gillian G. Mayman**, Reference and Instruction Librarian, Health Sciences Library, University of Michigan–Ann Arbor

**Objective:** To harness the popularity of Facebook, a social networking website, to deliver health education applications targeted at college students.

**Methods:** The library collaborated with public health students to create three Facebook applications focused on health education. The first application is a brief self-assessment which gauges students' stress level. When the level is high, tips for reducing stress are given. Friends can monitor their stress level as a group or individually. The second application builds on the popular Facebook applications that allow users to send their friends gifts or drinks. The Pass Your Friend a Condom application lets users send images of a condom to their friends as a humorous yet important reminder of safe sex practices. The third application allows users to track the amount of blood they have donated, both individually and as a

group. In addition, alerts appear when there are blood shortages in each individual's area.

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### Six Essential Social Technologies for Health Sciences Faculty

**Gillian Mayman**, Informatics Librarian; **Whitney A. Townsend**, Liaison Services Librarian; **Mark MacEachern**, Liaison Services Librarian; **Marisa Conte**, NLM Associate Fellow; Health Sciences Libraries, University of Michigan–Ann Arbor

**Objective:** To present an overview of six social technologies considered "essential" for health sciences faculty and provide examples of their practical uses in a health sciences setting.

**Methods:** Social technologies, those technologies that allow users to interact with each other and with the information they share, have recently come to the forefront of discussions in the health sciences library world. While many librarians are utilizing these tools, faculty are often unaware of their breadth and potential value as instruments of teaching and collaboration. This poster will introduce six "essential" social technologies for faculty in the health sciences: social networking, collaborative writing, blogging, instant messaging, social tagging, and presentation sharing. The specific tools covered will include FaceBook, wikis, Zoho, Google Docs, blogging programs, Meebo, del.icio.us, CiteULike, and Slideshare. This poster will detail why these technologies are considered "essential," provide examples of their potential use by faculty in a health sciences setting, and offer recommendations to librarians who wish to acquaint faculty with these and other social technologies.

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### Third-year Medical Student Participation on a Daily News Service Editorial Board

**D. Elizabeth Irish, AHIP**, Assistant Director for Education and Administrative Services; **Enid M. Geyer, AHIP**, Associate Dean for Information Resources and Technology; Schaffer Library of Health Sciences; **Jacob M. Reider**, Assistant Professor; **Kimberly A. Noyes**, Assistant Director of Predoctoral Education; Family and Community Medicine; Albany Medical College, Albany, NY

**Objective:** To provide third year medical students in a family medicine (FM) rotation the opportunity to participate in the editorial process of a daily news service as part of an informatics curriculum. By the end of the rotation, students will be able to identify, select, and pitch a publication idea to an editorial advisory board.

**Methods:** Third year medical students participate in the editorial process of *Physician's First Watch (PFW)* ([firstwatch.jwatch.org](http://firstwatch.jwatch.org)) as part of medical informatics and FM curriculum. This opportunity was negotiated by a FM faculty member on the *PFW* editorial advisory board. At the beginning of each rotation, clinical and library faculty meet with students to teach Web 2.0 applications and to

review project instructions. Using the technology, students are required to submit one newsworthy pitch with a concise justification. Students must also sign up for *PFW* conference calls. Each sign-up slot is linked to the pitch deadline and conference call times. To avoid duplication, an RSS feed displays recently submitted topics. Daily pitches are simultaneously sent to the editorial board and faculty. Students participate in the editorial conference call, where they pitch their submission and learn if their pitch was selected for publication.

**Results:** Sixty-five students participated between August 2007 and February 2008. Of these, three pitches have been accepted for publication. Clinical and library faculty agree that the project is a valuable learning experience, despite the initial challenges. These challenges include notifying students of conference call time changes, students spending too much time researching topics, and scheduling difficulties. A small number of students were reluctant to speak while they were on the two conference calls. Measures have been instituted and students are sent email reminders for their conference times, the importance of participating is emphasized during the introductory session, and guides have been developed to assist students in their news search.

**Conclusion:** Students are provided a unique opportunity to participate in the editorial process of a physician's daily news services. Changes implemented to address the initial challenges appear to have streamlined the process to make it an even more valuable learning experience.

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#### **Making the Connection: Assessing the Information Literacy Skills of First-year Students Enrolled in a Doctor of Dental Medicine (DMD) Program**

**John Siegel, AHIP**, Reference Librarian, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

**Introduction:** Information literacy research, including assessment, has been widely conducted at the undergraduate level. Fewer studies have been undertaken that examine the information literacy skill level of graduate students, particularly in the health professions. Such studies have mainly focused on medical school students and largely overlooked graduate students in other health professions.

**Objective:** The purpose of this research study is to assess the information literacy skills, defined as "the set of skills needed to find, retrieve, analyze, and use information" by the Association of College and Research Libraries, of first-year students enrolled in a doctor of dental medicine (DMD) program at a major university.

**Methods:** A fifteen-question anonymous survey was designed to determine first-year dental students' past library use, comfort level in using libraries, skill level in using specific information resources, and familiarity with library services. At the beginning of the fall 2007 term, the author contacted the University of Pittsburgh School of Dental Medicine faculty member teaching the introductory professionalism in dentistry course required in the

first year of the DMD program and asked for permission to survey students enrolled in the course. The author distributed the survey and collected responses during one class period.

**Results:** A total of 77 students completed the survey. Most respondents (94%) indicated that they had used a library at least once per school year to conduct school-related research. In addition, over half (58%) answered that they last used a library for school research purposes less than a year ago. However, only 61% of respondents answered that they were at least comfortable using the library to conduct research. Higher rates of "don't know" and incorrect responses were associated with questions asking about the distinction between a scholarly journal and magazine, the purpose of the reference desk, the difference between reference and circulating books, and the availability of interlibrary loan (ILL).

**Conclusion:** Survey results suggest that graduate students may not necessarily have a high comfort level or be proficient in utilizing libraries for research purposes and illustrate the need for ongoing user instruction.

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#### **Beyond PubMed**

**Andrea S. Horne**, Associate Director for Information Services; **Nadine P. Ellero, AHIP**, Intellectual Access Librarian; **Inhye Kim Son, AHIP**, Electronic Services and Research Librarian; Claude Moore Health Sciences Library, University of Virginia—Charlottesville

**Objective:** While many interfaces for searching MEDLINE such as PubMed or OVID have been in existence, in recent years, there has been an explosion of alternative interfaces offering new search capabilities and features. Many of these feature sophisticated natural language processing and other technologies to offer new experiences for the user in retrieving literature and information discovery

**Methods:** To assess the utility of these search capabilities, a small focus group was formed to introduce recently released tools to biomedical researchers—including faculty, research associates and graduate students—at an academic medical center. These new tools included free products like HubMed, Gopubmed, PubFocus, and ReleMed. Researchers were observed as they interacted with the products and asked to discuss their searching experience and the utility of the product for themselves and other researchers.

**Results:** Two focus groups were conducted with eleven participants. Participants consisted of seven faculty members, two lab specialists, one graduate student, and one undergraduate student. Individual participants favored certain tools depending on their search needs, but average scores for all four tools were similar. Unexpected benefits of these sessions included opportunities to provide instruction on searching PubMed, receiving table of contents alerts, and exporting results to bibliographic management software. A follow-up will be done to assess the continued use or nonuse of these tools. Information from the sessions and the follow-up will be used to assess

the usefulness of these tools and the library's role in promotion.

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### **Bridging the Gap to PDA Technology: The University of Connecticut Health Center PDA Program**

**Robert M. Joven**, Information and Education Services Librarian; **Ben Smith**, Academic Computing Specialist; **Sheryl Bai**, Network Systems Librarian; Lyman Maynard Stowe Library, University of Connecticut Health Center–Farmington

**Objective:** This poster describes the overwhelming success of the University of Connecticut Health Center (UCHC) Library's PDA program since 2001. It will illustrate the different methods of instructions used to teach medical students how to use PDAs and its software. There is a steep learning curve when students first get their PDAs. The library, through its various programs, provided unprecedented support not just to our medical students, but to all PDA users in our institution.

**Methods:** Second- and third-year medical students at UCHC have been required to purchase a PDA and download recommended software licensed by the library since June of 2002. They then use these PDAs during their clinical rotations. The UCHC library is lucky enough to be involved in all facets of PDA support. This includes working with faculty to recommend software to students; testing, selecting, and recommending PDAs to students; and assisting students and staff with setting up, installing, and using their PDAs. We developed several programs for our PDA initiative including Library Champion Program, Faculty Champion Program, PDA Users Group, PDA Clinics, and our monthly PDA library classes. We also provided syncing stations in the library and created a comprehensive PDA Library page.

**Conclusions:** PDAs changed the image of our library in the minds of faculty, staff, and students by showing we are early adopters of technology and know how to teach. The feedback from faculty and students has been very positive. Several news articles has been written about the library's PDA Program. We have been invited many times to do PDA workshops throughout the institution. The library is now represented on the Patient Safety Committee because of our PDA initiatives. The visibility of our library has increased not just in our institution but beyond. We have presented classes to several library organizations, presented lectures to physicians at several area hospitals, and were invited to be on a panel at an MLA patient safety symposium.

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### **Bridging the Information Management Gaps in a Revised Medical School Curriculum**

**Patricia C. Higginbottom**, AHIP, Associate Director for Public Services; **Lee Vuovich**, AHIP, Assistant Director for Reference Services; **Gabriel Rios**, Deputy Director; UAB Lister Hill Library, University of Alabama–Birmingham

**Objective:** This paper describes the integration of information management skills into a revised medical school curriculum that includes input from librarians throughout the planning, implementation, and assessment process.

**Methods:** In the fall of 2007, University of Alabama-Birmingham School of Medicine (SOM) administrators and faculty implemented a new concept-driven curriculum designed to provide clinical relevancy to the pre-clerkship years. A blend of instructional modalities and assessments were developed to foster active learning rather than rote memorization. The updated learning method is based on a system of organ-based modules and longitudinal themes including geriatrics and evidence-based medicine. Because of the relationships librarians built with SOM faculty over the last decade and through the success of working with medical students and course directors in the old curriculum for the previous two years, "information management" was made a theme. A Lister Hill Library faculty librarian serves as theme director. As concepts and skills from every theme are integrated in each module, the module and theme leaders work together to develop systems, policies, and learning objectives for the students.

**Conclusions:** Inclusion of a librarian in the development of a new curriculum has led to a greater understanding of the learning objectives and teaching methods and to a deeper integration of information management skills in the curriculum. Other schools, such as the UAB School of Dentistry, are including information management skills in the same way as they revise and update their curriculum.

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### **Designing a Comprehensive Program to Support Nurses in a Hospital Magnet Journey**

**Mary Lou Glazer**, AHIP, Chief, Medical Library, Department of Veterans Affairs, Northport, NY

**Objective:** Designing a comprehensive program to support nurses in a hospital Magnet journey.

**Methods:** The nursing service in a 300-bed hospital is seeking Magnet Status. The medical library, which consists of 1 librarian and 1 library technician, is in the process of developing a program focused on education to assist the nurses in their journey. The hospital library services clinicians, residents, allied health professionals, and patients. A variety of services and classes were offered including the following:

- monthly lunch time "Teach the Teacher" program focused on EBM resources such as CINAHL and PUBMED
- monthly library orientation classes offered to new nurses
- outreach through small group training of evidence-based medicine (EBM) resources appropriate for each service at the nursing station; for example, kidney, dialysis ejournal, ebooks, and searching instruction for the dialysis service
- scheduled one-on-one training for nurses completing research

In addition to classes for nurses, EBM resources were purchased specifically for nurses (Nursing Consult and EBM Nursing Journal). Librarian became a member of Magnet Committee. Librarian recorded occasions when nurse interaction complied with each of five different forces. This was completed to assist the Magnet Committee in completing the application.

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#### **Health Literacy: Stepping Stones to Understanding**

**Janet L. Petty, AHIP**, Associate Librarian; **Shirley Sebold-Kinder, AHIP**, Director; **Leslie Lindsey**, Access Services/Information Systems Librarian; **Craig Memorial Library**, Miami Valley Hospital, Dayton, OH

**Objective:** Our challenge was to provide health literacy initiatives to assist our nurses in providing education in plain language to enhance the patients' and family members' understanding of their disease process and treatment thereby improving health outcomes.

**Methods:** After attending a three-day health literacy institute at The Ohio State University, the patient education librarian developed a health literacy inservice (1.2 nursing CEs) focusing on literacy issues in the Dayton area. According to statistics, 62% of city of Dayton residents read at or below the 8th grade level (31% of those at the 5th grade and below). The inservices were so well received, the librarian developed a course on plain language (3.0 nursing CEs). This workshop can be broken down into components addressing general health literacy issues, how to talk to your patients in plain language, and how to write materials in plain language so that one-hour presentations can be made as requested by nursing. A health literacy module was added to the hospital's employee online competency/education system (HealthStream) for all newly hired nurses. As of 2006, the HealthStream health literacy module is now a mandatory requirement for all nurses to take for their annual competency training.

**Main Results:** In 2006, 2,633 out of 2,636 employees (99.39% completion rate) took the HealthStream health literacy module. Based on the success of the health literacy nursing inservices, other departments are now requesting presentations, such as dietetic interns, internal medicine, and orthopedic residents.

**Conclusion:** As nursing and other hospital staff become aware of health literacy, they are able to make the connection as to why compliance issues and health outcomes are not ideal. They now realize what cues to look for and how to instruct their patients in plain language to improve patient care. We plan to continue to promote and serve as advocates for patients and families on health literacy issues. Improving patient care, outcomes, and safety can be accomplished through staff education on health literacy and plain language techniques. Thus, satisfying the Joint Commission initiative to improve patient safety by addressing the health literacy needs of our patients.

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#### **PubMed and Evidence-based Medicine Training for Medical Students: Finding a Better Way**

**Brandi Tuttle**, Information and Education Services Librarian; **Connie Schardt, AHIP**, Associate Director, Education Services; **Anne Powers, AHIP**, Information and Education Services Librarian; **Megan von Isenburg**, Associate Director, Information Services; **Medical Center Library**, Duke University, Durham, NC

**Objective:** To combat inattention and lack of attendance at amphitheater-based PubMed/evidence-based medicine (EBM) lectures for second-year medical students, the library felt compelled to make a radical change in its approach to this important training. We initiated a pilot project to determine whether an online interactive tutorial is a more effective method of engaging students.

**Methods:** The library developed an interactive web-based PubMed tutorial that follows the EBM process. We worked with the school of medicine to make the tutorial a mandatory part of the "Orientation to the Clinical Year" curriculum. It was given equal weight with other required online training modules. The tutorial's browser window is split into two sections. The top frame provides instruction and guides students through a live PubMed search in the lower frame. The final portion of the tutorial is a required quiz that presents a clinical scenario and asks students to develop a question, conduct a search, and select up to five relevant articles. Students received individualized feedback from librarians and were asked to critique the tutorial and the experience. Performance on the quiz and response from students and faculty will be used to evaluate the process and its impact.

**Conclusions:** The majority of students responded very positively to the tutorial, both in person and on the electronic evaluation. Our analysis of the students' acquisition and retention of knowledge will continue during advanced PubMed training given in small groups. Based on students' quiz performance, feedback, and our informal observations of their searching skills, we will make adjustments to the process and tutorial.

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#### **Launching a New Generation of Nursing Researchers into Nursing Informatics**

**Carolyn M. Brown, AHIP**, Reference Librarian; **Anna Getselman, AHIP**, Associate Director; **Health Sciences Center Library**, Emory University School of Medicine, Atlanta, GA

**Description:** The pilot program was designed to give the first-year doctoral nursing students the capability and fundamental skills to understand and overcome the complexities and limitations of biomedical information and knowledge management. Students were expected to learn how to gather data, integrate the acquired information into their work, appreciate different perspectives and contributions, and be able to construct new knowledge. The pilot program focused on teaching how to use PubMed, CINAHL, QUOSA, and EndNote in concert. Topics covered included: the nature of biomedical data, information quality and knowledge sharing, architecture and design of information retrieval systems, and information use and reuse. The program emphasized the ad-

vantages and disadvantages of using specific information and knowledge management techniques. It consisted of three one-hour seminars and three two-hour workshops, with hands-on experience and homework assignments. Individual consultations and guidance were provided. Blackboard technology was utilized to extend students' learning experience by posting syllabus, learning objectives and units with tutorials, presentations, and videos of hands-on exercises. A shared My NCBI was created to promote communication, information sharing and active learning. The program was received with enthusiasm, and valuable relationships have been forged. The doctoral students asked to have Blackboard resources available after the course was completed.

**Conclusions:** An exit survey was conducted to solicit feedback on presenters' effectiveness, content, setting, instructional methods, and learners' achievement. To follow up on the results and comments from the survey, the group met and openly discussed the program in a focus group setting.

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### Supporting "No Harm on the Farm"

**Ellen Schellhause**, Health Sciences Librarian, Crawford Library of the Health Sciences, University of Illinois–Chicago, Rockford, IL

**Objective:** To collaborate with rural health care programs to teach specific traditional and nontraditional information-seeking skills to future rural health care providers who might not have access to a hospital or staffed medical library when they practice in a rural or farming community.

**Methods:**

**Setting:** An academic health sciences library serving a school of medicine, college of nursing, college of public health, and National Center for Rural Healthcare Professions all with a rural health care programs.

**Population:** Approximately forty students from all colleges specializing in rural health care tracks.

**Exposure:** Students take tour of large farming operation to see what injuries can occur in the rural community setting. Librarians take part in the tour and then work with students throughout the three-year program to develop instruction on MEDLINE training, Google Searching, and other web-based programs available to obtain information for their practice in a rural community. Students must participate in a rural research project required by their college and pass institutional review board approval with a sixth-to-eight grade health literacy consent form.

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### Aiming to Connect and to Captivate

**Linda J. Collins**, AHIP, User Services Librarian, School of Medicine Liaison, Health Sciences Library, University of North Carolina–Chapel Hill

**Objective:** Convincing first-year medical students that they will benefit from information skills instruction is always challenging. Truly capturing student interest and attention is even more difficult. Will the use of new edu-

cational technologies make this instruction more appealing? This poster describes several electronic strategies and tools that were used to enhance the learning experience for beginning medical students.

**Methods:** The medical school liaison librarian has taught information literacy skills to new medical students since 2002. There are three major objectives for this instruction: students will develop skills to efficiently locate, search, and retrieve biomedical information; students will develop skills to effectively search the MEDLINE database using PubMed, and students will understand the basic principles of evidence-based medicine, including how to search the literature to support its practice. In the past, students had expressed a strong preference for online instruction. In the fall of 2007, traditional lectures covering the basics of library resource use were replaced with an online tutorial enriched with video demonstrations created using Adobe Captivate 2. Instruction in Advanced PubMed features and techniques, previously delivered using in-person lectures given to large groups, was offered online to small groups using Adobe Connect.

**Results:** Changing the instructional delivery method met with mixed success. A surprisingly small percentage of the students (30%) opted for online rather than in-person advanced PubMed instruction. The online tutorial was reasonably successful. While technically listed as a course requirement, there was no way to directly monitor tutorial usage short of web page hit counts.

**Conclusions: Lessons learned:** Providing e-learning options requires considerable time and effort. Mastering new software is just the beginning. The larger challenges lie in adjustments by both student and teacher to new types of pedagogical interactions.

**Future plans:** Audio will be added to enhance the video clips in the tutorial. More importantly, a brief assessment will be developed and listed as a course requirement. To encourage more use of the online PubMed instruction, the students will be given a demo of Adobe Connect during their initial library orientation session

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### Being Present at the Birth: Distance Learning Services for Nurse Midwifery Students

**Colleen M. Kenefick**, AHIP, Librarian; **Susan E. Werner**, Informatics Librarian; Health Sciences Library, Stony Brook University, Stony Brook, NY

**Objective:** The library's philosophy is to provide distance learning students with the same access to print and electronic resources as on-campus students. A recently established program for medical students was transformed into a customized program to meet the special needs of distance learners. A new approach for integrating personal librarian services into a nurse midwifery distance learning program was created.

**Methods:** The library has been an active participant in the graduate distance learning nursing program since beginning in 1995. The entering class of nurse midwifery students come to campus for an initial three-day orientation. During this session, students are matched with an

informatics librarian who is their sole point of contact for all library concerns. Because many of these students are located in rural or remote regions of the United States, they may not be affiliated with a hospital. For this reason, they are the only group of distance learning students who are required to return to campus twice more. Librarians meet with their students every time to address developing needs and to reinforce proficiency. A variety of methods are utilized to improve research and communication skills including email reference, electronic reserves, instant messaging, interactive tutorials, and personal email.

**Conclusions:** To prepare for the 2007 accreditation review and site visit by the American College of Nurse-Midwives, the library reviewed its techniques to reach our remote users. In response to the review, we have now implemented instant messaging and Facebook to best reach the current student population. In addition, a tutorial was created in cooperation with the school of nursing for CINAHL Plus with Full Text.

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**Evidence-based Medicine Tool Picking Made Easy: Simplifying the Tiers of Evidence Helps Students Choose the Best Information Tools for Their Clinical Questions**

**Rita Shaughnessy**, Library and Information Specialist, Family and Community Medicine; **Rita Vine**, Reference and Instruction Librarian, Gerstein Science Information Centre; University of Toronto, Toronto, ON, Canada; **Mindy Thuna**, AstraZeneca Science Liaison Librarian, University of Toronto Mississauga Library, University of Toronto Mississauga, Mississauga, ON, Canada

**Objectives:** (1) Introduce medical students to synthesized, evidence-based information products. (2) Develop a simple, reusable method to help students quickly identify and select the best tools for answering clinical questions. (3) Match categories of common clinical questions to information tools that provide the best evidence-based answer.

**Methods:** We delivered a three-hour workshop on evidence tiers and synthesized information resources to seventy-five students, part of a transitional program for physicians educated abroad. None had prior exposure to synthesized information products. Feedback from a similar clerkship program suggested that simplifying the well-known evidence pyramid (Haynes, 2006) would help students select the best tool for their information need. We developed a "tierless" evidence pyramid, placing thirteen search tools in loosely-arranged vertical order, from *most* distilled (e.g., Clinical Evidence) to *least* distilled (e.g., Google). We also made three smaller subset pyramids, containing information tools that could best answer questions about (1) diagnosis, (2) treatment options, or (3) drug information. Students learned to match the clinical question to the best subset pyramid, then select and search tools from that pyramid. Students received a handout with brief information and website links for all

thirteen tools. Instructors used common family-practice questions to reinforce the method.

**Conclusions:** The simplified, tierless evidence pyramid helped students quickly understand the gradation of synthesis in different information products. The secondary pyramids provided simple visual guidance to help students select the best tools for specific types of questions, without requiring a deep understanding of each tool's content or features. These details and features can be learned or taught as needed. This method saves valuable instruction time and enables the instructor to introduce evidence-based information tools earlier in the undergraduate medical education curriculum. The method will be used in September 2008 to introduce synthesized resources at lower levels of the undergraduate medical curriculum, thereby enabling subsequent clerkship sessions to focus more on comparative appraisal of information tools.

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**Linking Medical Residents to Training: An Analysis of Training Needs**

**Rick Wallace, AHIP**, Assistant Director, Quillen College of Medicine Library, East Tennessee State University—Johnson City

**Objective:** To determine what information training needs and behaviors medical residents have such as (1) information training provided by attending physicians, (2) formal evidence-based medicine (EBM) training programs, (3) information training provided by medical librarians, (4) preferred topics for information training, and (5) the desire to have a clinical librarian.

**Methods:** A survey analysis was conducted of 217 medical residents from the 2005/06 class in surgery, family medicine, internal medicine, obstetrics/gynecology, psychiatry, pediatrics, and pathology on their training needs and behaviors with a return rate of 48.4%. Quantitative analysis was performed with the SPSS (v. 14.0 for Windows) software program. The results were expressed in percents in graphical or tabular form. The data were analyzed using descriptive statistics (frequencies, mean, median, and mode) and inferential statistics (Mann-Whitney U test and chi-square test.)

**Results:** Sixty-one percent of residents indicated that they had received clinical information training from their attending physicians. Sixty-four percent of residents indicated they had formal EBM training in their program. Sixty-nine percent indicated they had received clinical information training from medical librarians. The top two training topics desired by residents were an overview of all available library resources and services and instruction on searching databases. Eighty-three percent of residents indicated that they would like a clinical medical librarian (CML) for their program. The Cramer's V statistic indicated a moderately strong relationship between residency program and desire for a CML.

**Conclusions:** The desire for instruction by residents from librarians is strong. Medical librarians must more aggressively seek to provide instructional opportunities for

medical residents. Librarians must periodically survey residents as to the content, time, and place where this instruction takes place so that it might be best utilized by residents.

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### **Bridging the Training Gap by Connecting with Colleagues**

**Jeanne M. Le Ber**, Education Services, Eccles Health Sciences Library; **Margo Beecher**, Manager of Training Services, Education and Development, IT Training Center; **Andrea Brown**, Manager of Training & Development, Division of Human Resources; University of Utah–Salt Lake City

**Objective:** To describe the process used to create a university training consortium. This group developed a coordinated knowledgebase of training opportunities that resulted in a database and web presence. Details of this grassroots effort, initiated by a core group of librarians and trainers, will be reviewed as a successful model for connecting with campus entities to bridge the training gap.

**Methods:** The education services librarian of this academic health sciences library, in collaboration with colleagues from human resources and the information technology training center, co-led the effort to identify existing campus training opportunities and address the gaps. Activities included inviting participation from colleagues across campus, holding monthly planning meetings, identifying the need for a centralized database of classes, requesting funds to develop and implement a searchable database of campus-wide training opportunities, designing a website, and publishing an online newsletter. Developing relationships with colleagues, vice-presidents, and departments outside the health sciences library proved invaluable for the project's forward movement. Built on the knowledge, skills, and attitudes of individual members, the consortium's goal of "collaborating for training success" was achieved by connecting with experts in other departments.

**Results:** A well-attended kick-off event was held fall semester to celebrate the launch of the classes database and Training U newsletter. Initially, twenty departments entered their classes into this centralized database and there have been subsequent requests from other campus entities to participate. Three issues of the newsletter have been published and distributed to a campus email list. And with the start of 2008, a strategic planning initiative is steering the training consortium to new horizons.

**Conclusions:** The continuing success of the U Training Consortium is due to the positive working relationships that have been cultivated over time. By connecting with colleagues to identify and bridge the training gap, the university now has "one stop shopping" for faculty, staff, and students who are searching for instruction and training opportunities. In addition, U Training Consortium members provide a rich source of expertise for each other by sharing knowledge, skills, training materials, and facilities.

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### **The Three-pronged Approach: A Framework for Teaching Information Management in the Health Sciences**

**Erika L. Sevetson**, Health Sciences Librarian; **Christopher Hooper-Lane, AHIP**, Instructional Services Coordinator; Ebling Library, University of Wisconsin–Madison

**Objective:** To develop a new way to make the structure of medical information accessible and understandable to our users in ways that will enable them to incorporate this understanding into their lifelong learning.

**Methods:** In response to an invitation to teach the faculty development course, "Beyond Google: Or, There Must Be More to Life than UpToDate!," instructional librarians at the Ebling Library, University of Wisconsin-Madison (an academic health sciences library) developed a framework for understanding the structure of medical information and the resources available to answer specific types of questions. The traditional evidence-based medicine distinction of background versus foreground is adopted and expanded on, but in recognition of the importance of lifelong learning skills, "keeping current" using surveillance tools and RSS is an important part of the equation.

**Conclusions:** This three-pronged approach, along with the visual map used to illustrate it, has proved effective in orientations and workshops across the spectrum of health sciences and can be adapted for researchers to include a fourth prong of "citation management."

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### **Connecting with Students: Using Case Studies to Teach Research Skills**

**Sharon C. Murphy, AHIP**, Associate Librarian, Health Sciences Library, University at Buffalo, State University of New York–Buffalo

**Objective:** Sometimes, health sciences librarians still only have the opportunity for the "one-shot" lecture when introducing new students to library research. A librarian and nursing school member teamed up to offer an innovative approach—using the case study. Interactive and effective, it helps students recognize when information is needed and fosters skills in locating, evaluating, and using this information.

**Methods:** Nur101 is a course offered every fall at the University of Buffalo (UB) to approximately 100 freshman nursing students. For 3 consecutive years, the library liaison to the nursing school has used case studies from UB's award-winning National Center for Case Study Teaching in Science ([ublib.buffalo.edu/libraries/projects/cases/case.html](http://ublib.buffalo.edu/libraries/projects/cases/case.html)). Case studies—"stories with an educational message"—are captivating vehicles to introduce information literacy skills. Students read a case study and complete selected exercises on a wiki before class. This provides a springboard for lively class discussion covering pertinent library and Internet databases and information resources, evaluating Internet resources, the scholarly publishing process, and lots of ground in between. Students are assigned another case study and incorporate

the research resources and information skills to write a paper as part of their grade.

**Results:** Students consistently provide favorable feedback. Random, anonymous, index card sampling is used for comments in each class. The instructors like the approach, which is structured but flexible. Anecdotally, the nursing instructor reports that papers have improved in quality since this approach has been used compared with previous years. Experimentation using a hands-on interactive PowerPoint presentation addition in class was less successful and not repeated. The class is fun to teach and engages students. The case study approach successfully introduces and models effective research skills!

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### **Clickers in the Classroom and Beyond: Using Personal Response Systems to Improve Student Learning**

**Janet G. Schnall, AHIP**, Information Management Librarian; **Amy L. Harper**, Information Management Librarian; **Leilani A. St. Anna, AHIP**, Information Management Librarian; **Joanne Rich**, Information Management Librarian; Health Sciences Libraries, University of Washington–Seattle

**Objective:** Describe the positive impact of using clickers (personal response systems) to enhance active learning in in-curriculum teaching and staff development.

**Methods:** The University of Washington Health Sciences Libraries (HSL), which serves six health sciences schools, is constantly searching for new ways to use innovative technology to enhance student learning. We received a grant and purchased fifty clickers that allow instantaneous interactions between the instructor and students. The clickers (handheld transmitters) are used by the students to send an answer or vote, the receiver transfers responses to the instructor's computer, and software on the instructor's laptop tabulates responses instantaneously in graph format. Library liaisons were taught how to incorporate clickers into class presentations. Clickers have been incorporated into in-curriculum nursing classes where we have conducted pre- and posttests to assess student knowledge, guest lectures in the information school to engage students in lecture content, and pre-op library sessions for surgery residents to assess their searching skill levels. Clickers are also used out of the library, wherever we can tote our laptops to teach. In addition to in-curriculum presentations, the clicker system can be used for library staff development/education.

**Results:** Clickers have provided real-time assessment for instructors on student knowledge and progress as well as instant feedback for students. Clickers have successfully encouraged active engagement, attentiveness, and class participation in class content and provided information for the content of future classes. To build on this success, the HSL has purchased an additional twenty-five clickers for use in larger classes.

**Conclusions:** Challenges for librarians in using personal response systems are: developing appropriate, thoughtful questions that allow students to apply their recently acquired knowledge; increasing instructor flexibility in

teaching style; gaining familiarity with the software and equipment; and creating documentation to promote ease of use and consistency of practice.

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### **Connecting Health Sciences Students with MEDLINE through OvidSP: A Comparison of the Basic Search and Advanced Ovid Search Modes**

**Eileen Eandi**, Acting Associate Director, Educational and Research Services Division, Norris Medical Library, University of Southern California–Los Angeles

**Objective:** Ovid's recent change from the Ovid Web Gateway to the OvidSP platform necessitates a reexamination of the library's MEDLINE instruction for health sciences students. This study is designed to determine whether to teach students both the OvidSP Advanced and Basic search modes or only the Advanced Ovid Search mode. **Methods:** The library participates in the year 1 medical school curriculum with hands-on Ovid MEDLINE workshops and three literature search assignments. For each assignment, students turn in their Ovid search strategy with citations to five articles. The first assignment was completed using the Ovid Gateway platform. For the second assignment students will perform their search twice in OvidSP, once in Basic Search and once in the Advanced Ovid Search mode. In addition, students will provide a brief informal opinion of the two search modes. Librarians will evaluate and grade assignments based on the student's effectiveness and efficiency in using the interfaces to retrieve relevant citations. Results of the second assignment will be combined with students' commentaries to determine the content of the third search assignment. This poster will reflect the conclusions drawn from the second and third assignments on instructing students in searching MEDLINE in OvidSP.

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### **Connecting with Customers: Customer Service Training for Library Staff**

**Irene M. Lubker**, Research Librarian; **Alan T. Williams**, Education Services Librarian; **Kristine M. Hughes**, Education Services Librarian; **Barbara A. Wright, AHIP**, Reference Librarian; Research and Education Services; **Jean P. Shipman, AHIP**, Associate University Librarian, Library Administration; **Catharine S. Canevari, AHIP**, Associate Director, Research and Education Services; Tompkins-McCaw Library for the Health Sciences, Virginia Commonwealth University–Richmond

**Objective:** This poster will describe our experience offering customer service training to library staff via blogs, discussion board, and Blackboard course management software.

**Methods:** Over the last several years, our library has targeted enhanced patron experiences through improved customer service. This initiative is aligned with our institution's strategic plan and based on service-focused surveys of our library users, including a local service survey and LIBQUAL+ results. During November 2005, our unit's service staff were surveyed to identify training gaps

and needs. The staff development program incorporates tutorials, discussions during staff meetings, and in-depth training targeting identified needs. This training is supported with communication tools such as blogs for staff and user feedback, and the development of handouts and other materials. The bulk of the training is accomplished through a Blackboard class that pulls together these resources and offers tools that collect usage statistics and provide feedback to both trainers and trainees. Feedback on the staff development program has been positive.

**Results:** Feedback on the staff development program has been positive. The library has a central place for training materials that is accessible by all staff for both updating and reviewing materials. The class also provides an opportunity for service desk staff to actively participate in training because they can add content to it. Additionally, the Blackboard statistics tool allows tracking of user logins and provides data on the frequency of which the resources are used. Linking to the “Health Sciences Resources” course provides additional training materials on reference services for service desk staff.

**Conclusions:** The Blackboard training course successfully provides one location for staff training materials

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### **Medical Students Bridge Their Knowledge Gaps by Connecting to Lecture Podcasts**

**Nancy T. Lombardo**, Systems Librarian; **Derek Cowan**, Head, Video Studio; **Spencer S. Eccles** Health Sciences Library, University of Utah–Salt Lake City

#### **Objectives:**

This poster will:

1. Explain the technical details of offering video and audio podcasts of lectures
2. Outline the time commitment involved
3. Describe the technical support levels required to undertake podcasting
4. Evaluate the products and determine their value
5. Provide an estimate the costs involved with podcasts
6. Examine examples of podcast lectures

**Methods:** Three school of medicine faculty worked with the library to offer video and audio podcasts of course lectures in neuroanatomy, neurology, and biochemistry for second-year medical students at this academic health sciences center. The service was popular with the students, but involved many staff hours and high levels of technical expertise. Many valuable lessons can be shared with MLA members. Production time, technical requirements, and student response to this service will be covered in this poster. Many formats were produced, and delivery was offered through a variety of mechanisms. A small format video was available for portable devices such as iPod. A larger format was available for laptops and desktop computers. Audio only was an option. All formats, plus PDF handouts were linked and available for the students through the school of medicine course calendar, WebCt, and iTunesU.

**Results:** Results of a survey of students in the Biochemistry course regarding their use of the podcasts will be

discussed. Their perceptions of the value of the podcasts will be assessed. Statistics on usage of the video will be presented. The authors overall evaluation of the project will be described.

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### **Handouts No More: Increasing Access and Saving Paper By Using del.icio.us**

**Mary J. Markland**, AHIP, Southeast Clinical Campus Librarian, Harley E. French Library of the Health Sciences, University of North Dakota School of Medicine and Health Sciences–Fargo

**Objective:** Educational materials on paper are labor intensive to prepare, impossible to update, and wasteful of resources. Moreover, the paper is the only lasting record of a lecture or outreach session that is by nature fleeting. A more dynamic solution was needed that can be edited, be updated, and be accessible from wherever the Internet is found.

**Methods:** The social bookmarking site, del.icio.us, seemed the perfect solution. Information is kept current and new links are easily added. People can access it from anywhere so the page remains a constant point of contact with the library. The first project that was adapted to the del.icio.us format was devoted to evidence-based practice. The page contains links to many more resources than would fit on the traditional one page handout, and users can track additions by using the RSS feature. It was immediately a hit with both students and librarian. The project has expanded to include a second, more general “library” page that includes more medical general interest links along with subjects tied to lectures and exhibits. Plans for the future include improving access to other lecture materials by using social networking sites such as SlideShare.

**Conclusions:** A measure of success is the continued utilization of the site. The latest project includes links specific to our North Dakota Go Local Project. Using del.icio.us as a resource to provide dynamic information for library users has been a success. I will continue to look for ways to improve access to my users using Internet-based tools.

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### **Simplified Selection of Web Content: Balancing Library Expertise with User Data**

**Jill E. Foust**, Web Manager/Reference Librarian, Reference Department, University of Pittsburgh, Pittsburgh, PA

**Objective:** While user input is an essential element of web content selection, identifying content that meets user needs also requires opinions from a diverse team of librarians, often generating a wide variety of viewpoints. This poster describes an evidence-based approach to the selection of web content during the redesign of a history of medicine website.

**Methods:** Twenty links on the existing history of medicine website’s index page were listed in random order and each of the four redesign team members was given a hard copy of the list. Following a discussion led by the web manager about the about the relative importance of

each link on the list, the team ranked the links in tiers of 5 according to their perceived importance to users; they then ranked those results in each tier from 1 to 5. A team member served as scribe and listed the discussion results on a white board. Next, a year of user data, describing the total number of times users viewed the site's most popular web pages, was compiled using Google's Urchin web analytics software. The web manager then performed a comparative analysis of librarian rankings with the user data.

**Conclusions:** There were three common links in the top tiers and two in the second tiers. One item in the first tiers received the same ranking from both sources. Nine site links with minimum usage levels were not listed on the Urchin report. Results made evident the discrepancies between librarian's perceptions and what users were actually accessing. The weighted list of possible links for the redesigned site included: links highly ranked on both lists, highly rated links on Urchin's list but not the team's list, highly rated links on the team's list but not Urchin's list. The tool simplified the selection of existing content for consideration on the redesigned site and established the foundation for the rest of the content selection process.

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#### **Understanding Biocurators: Attributes and Roles of Model Organism Database Curators**

**W. John MacMullen**, Assistant Professor, Graduate School of Library and Information Science, University of Illinois–Urbana-Champaign, Champaign, IL

**Objective:** Biocurators are subject-matter experts who curate knowledge from the biomedical literature and other sources to enrich the content of model organism databases and other biomedical information resources. This project describes biocurators' educational backgrounds and biological expertise, organisms with which they have laboratory- and Gene Ontology (GO) annotation experience, and details about their work tasks and roles.

**Methods:** Contextual data about educational backgrounds (degree levels and subjects), subject-matter expertise (specializations and experience), and work roles was collected from thirty-one biocurators as a part of two larger studies of GO annotation variation. A brief self-report questionnaire was used to obtain curators' background information. Individual semi-structured thirty-minute interviews were conducted with fifteen curators, and a sixty-minute focus group was conducted with twelve biocurators, some from the same cohort. The interviews and focus group explored the tasks, workflows, and practice environments of the curators. The data were analyzed with descriptive statistics for the questionnaire data and content analysis for the interview and focus group data.

**Results:** Most (90%) biocurators studied held doctoral degrees—in such subject areas as genetics (33%), biochemistry (10%)—and molecular biology (10%), and had extensive laboratory experience. The years of GO annotation experience biocurators reported ranged from

a few months to several years. Biocurators' tasks include GO annotation, phenotype characterization, linking to other information resources, and supplementary indexing using specialized controlled vocabularies to provide end users with access points that are tied to biological entities (e.g., genes) rather than scientific articles and are more granular and specialized than topical (Medical Subject Headings) indexing. Biocurators also participate in interface design and end-user education and support.

**Conclusions:** In addition to being users of library services, biocurators are both peers of, and potential collaborators for, librarians in the health and biomedical sciences. Librarians serving biomedical research populations should be aware of the attributes and roles of biocurators, whose roles are so similar to their own.

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#### **VIPCare: A Collaborative Tool Connecting Third-year Medical School Students to Information at the Point of Learning**

**Jane Ichord**, Information Services Librarian; **Elizabeth J. Richardson**, Information Services Librarian; **Amy LaVertu**, Information Services Librarian; **Eric D. Albright, AHIP**, Director; Hirsh Health Sciences Library, Tufts University, Boston, MA

**Objective:** To support the information needs of third-year clinical clerkship students the library collaborated with clerkship directors and the curriculum database development department to create a virtual point-of-learning tool to enhance and support the AAMC core curricular objectives.

**Methods:** To bridge the gap between classroom learning and clerkship practice, the Virtual Information for Patient Care (VIP Care) resource was created to facilitate answers to clinical questions and simultaneously enable students to learn to use the medical literature as part of everyday practice. For the initial phase of this project, 2,000+ links were selected and indexed by Information Services librarians from selected resources: Agency for Healthcare Research and Quality Evidence Reports, American College of Physicians' PIER, Cochrane Database of Systematic Reviews, and select chapters from specialty textbooks in STAT!Ref and Books@Ovid. The resources are arranged by chief complaints, diagnoses, procedures, and skills for the 6 core clerkships. The database is searchable by keyword. Several expected outcomes of the project are that 1st and 2nd-year problem-based learning (PBL) students will more easily locate articles by symptom, and that 3rd-year clerkship students will gain greater access to the evidence-based literature and to our licensed resources by use of this tool.

**Conclusions:** The project demands that static URLs be available for dedicated resources for the database to be fully functional and utilizable. An improved marketing effort is required to increase use; targeted audiences include hospital residents and course directors. A user survey for quality improvement is scheduled for summer 2008.

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### Connecting with International Evidence: Measuring the Importance of Multiple Database Searching for BMJ Clinical Evidence

**Sarah L. Greenley**, Information Specialist, BMJ Knowledge, BMJ Publishing Group, London, United Kingdom

**Objective:** Research has examined the proportion of non-MEDLINE indexed studies in systematic reviews; however, limiting search sources is one way of reducing the evidence search time. This study examined the potential impact of a MEDLINE/Cochrane only search on the number of relevant references missed and their impact on the categorization of an intervention in BMJ Clinical Evidence (BMJCE).

**Methods:** A retrospective review by an information specialist of references in a regularly updated international compendium of systematic reviews. References in selected reviews across the range of specialties were examined to determine in which of the databases used in our usual search it was indexed: MEDLINE, Embase, The Cochrane Library and PsycINFO for mental health topics. The percentage of references that would have been missed with a MEDLINE/Cochrane only search was calculated. Updated reviews containing new evidence leading to a change in conclusions about the effectiveness of an intervention were highlighted and the impact of a reduced database search on the categorization of therapeutic interventions was examined. The importance of each database's search results upon BMJCE as a whole, across individual specialties and specific topics is discussed and recommendations for reviewing resources describing themselves as evidence-based are offered.

**Results:** Among 20 systematic reviews chosen for study, 60% would have missed references if a MEDLINE/Cochrane only search was performed. From the total 667 references reviewed, 28 (4%) would have been missed with the shorter MEDLINE/Cochrane search and 50 (7.5%) would have been missed with a MEDLINE only search. Of those references that contributed to a change in the conclusions about the effectiveness of an intervention (15 references across 9 topics), 4 of these (26.6%) would have been missed with a reduced MEDLINE/Cochrane search as 3 were unique to Embase and one was unique to PsycINFO.

**Conclusions:** A reduced literature search of MEDLINE and The Cochrane Library would miss 4% of total references. However, 26.6% of references leading to a change in conclusions about the effectiveness of an intervention would have been missed—important studies that could change clinical practice.

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### EBM Librarian: A Wiki Connecting Instructors to Content

**Karen Odat**, Research and Education Librarian, Dartmouth Biomedical Libraries, Dartmouth College, Hanover, NH; **Connie Schardt, AHIP**, Associate Director for Public Services, Duke Medical Library, Duke University, Durham, NC

**Objective:** To develop an online community for librarians who are involved in teaching and supporting the practice of evidence-based medicine (EBM) where they can share/exchange materials and ideas. The purpose of this poster is to inform medical librarians of the wiki's existence, to encourage participation in its continued development, and to encourage librarians to create similar sites to support common activities. The poster will highlight the development, content, and usage of the EBM Librarian wiki.

**Methods:** Librarians across the country are teaching and supporting EBM—and we usually create our own teaching materials, constantly reinventing handouts, exercises, and scenarios. The EBM Librarian wiki allows all of us—EBM teachers and learners—to collect and share these kinds of materials. After selecting a wiki website that met our criteria (wetpaint.com), we designed the layout and navigation for the site and populated it with our content and links to other known sites. We then recruited other participants/contributors through outreach that included emails to MEDLIB-L and local MLA groups, an article in the *MLA News*, and specific invitations to known interested people. Invitations were also sent to students in prior MLA and chapter-sponsored EBM continuing education (CE) courses.

**Conclusion:** We are constantly reorganizing, fine-tuning, and adding new content. We currently have approximately 600 visits to the site per month and 170 registered users. The EBM Librarian wiki has been discovered by and mentioned in other library and medicine-related wikis and blogs.

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### Building on Existing Evidence: Comparing MEDLINE Systematic Review Search Strategies for Everyday Use

**Sarah L. Greenley**, Information Specialist, BMJ Knowledge, BMJ Publishing Group, London, United Kingdom

**Objective:** Identifying a good quality systematic review can save duplication of effort when searching for evidence as searching for primary studies can sometimes be limited to after the search date of relevant existing systematic reviews. Published MEDLINE Ovid search strategies for systematic reviews were compared in a pragmatic, real-world scenario to determine the optimum strategy for regularly updating BMJ Clinical Evidence.

**Methods:** Published systematic review search strategies using the Ovid MEDLINE platform were identified and saved as permanent searches on OVID. A validation dataset was created by selecting the first systematic review listed for each topic in BMJ Clinical Evidence across multiple medical specialties until 100 systematic reviews were collated. The publication journal for each systematic review was checked for inclusion on MEDLINE. Each published systematic review search strategy was run and the results examined to check performance against the validation set. Sensitivity was calculated for each search strategy and compared with the current in-house search strategy. Advantages and limitations of using this method

to choose the best search strategy for the purpose of finding all relevant systematic reviews in a framework of regular updating across a variety of medical specialties are discussed.

**Results:** Six systematic review search strategies were run on Ovid MEDLINE and checked against the validation data set. Sensitivities ranged from 85%-100% (existing BMJ Clinical Evidence strategy 91%) but yield of search varied considerably. A new in-house strategy to find systematic reviews was developed with a sensitivity of 99% compared against the existing data set. This strategy has similar sensitivity to the top 3 high-sensitivity strategies but yields far fewer results. Initial testing of the new strategy on MEDLINE 1989–2006 yielded 92,582 results compared with 3,311,057 for Montori's (2004) sensitive strategy and 2,484,593 for White's (2001).

**Conclusions:** Existing highly sensitive systematic review strategies can yield large numbers of results for regular use. Initial testing of a new strategy matches the sensitivity of these while yielding significantly fewer results. Testing the new strategy on a different set of 100 reviews will investigate whether the sensitivity can be replicated.

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### **Use of Multiple Citation Analysis Resources to Measure Scientific Works: Evaluation and Comparison of Citation Analysis Tools**

**Yanira García-Bárcena**, Librarian; **John D. Jones Jr.**, Librarian; Reference and Education Services, Louis Calder Memorial Library, Leonard M. Miller School of Medicine, University of Miami, Miami, FL

**Objective:** Evaluate and compare free and proprietary search engines that have the dual purpose of performing bibliographic searching and citation analysis in the biomedical field to determine if more than one search engine is needed to accurately assess scientific work. The free search engines will also be compared to proprietary search engines, such as Science Citation Index and Scopus.

**Methods:** Assess how interoperable, or not, are the Google Scholar, PubFocus, and PubReMiner free search engines with each other by documenting and evaluating their structural characteristics: basic volumetric statistics for authors, articles and journals, occurrence of biomedical key terms in a specific field, frequency of publications for authors and years, most often used journals in different types of studies, and impact of authors, articles, and institutions. Analyze and compare differences and similarities, if any, of the above mentioned characteristics and others. Compare with characteristics of the Science Citation Index and Scopus proprietary search engines.

**Results:** Both, free and proprietary search engines presented strengths and weaknesses in their searching capabilities and in their bibliometric analysis tools. In general, both groups were easy to search. They evidenced high functionality in forward citations, ranking articles with most impact, and in recording the publication activity during particular years on specific topics and fields. Understandably, no single interface encompassed all biblio-

metric analysis and usefulness as to: accessing journal impact factors, ranking most prolific authors (first and last), abundance or scarcity of scientific works at institutions, volume of forward citations, ranking articles with most impact, and publication activity during particular years on specific topics and fields.

**Conclusion:** Our study puts into perspective a number of subtle differences among these five search engines. Accessing more than one citation analysis search engine is necessary to accurately measure and evaluate an author's or institution's importance, relevance, and impact on the scientific community.

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### **Using Innovative Technology to Showcase the Uniqueness and Elevate the Global Visibility of a Special Collections**

**Christopher Ryland**, Assistant Director; **Taneya Koonce**, Assistant Director; **James Thweatt**, Health Information Specialist; **Mary Teloh**, Coordinator, Historical Collections; **Nunzia Giuse**, AHIP, FMLA, Director; Eskind Biomedical Library, Vanderbilt University Medical Center, Nashville, TN

**Objective:** To describe the use of innovative technologies to preserve and extend the reach of unique print historical items held in the special collections at Vanderbilt University Medical Center's Eskind Biomedical Library (EBL).

**Background:** The EBL contains a number of unique, rare, and significant texts documenting the history of medicine, nutrition, and related fields. To increase awareness and accessibility of these works to the broader community, the library adopted the innovative "Turning the Pages" model implemented by the British Library and the National Library of Medicine (NLM) for the online representation of selected materials from its collection.

**Methods:** The project team collaborated with NLM's staff to identify complex technical considerations and intricacies of the project workflow. For the initial project, the library selected the first volume of a unique, extra-illustrated edition of William Wadd's *Comments on Corpulency*. Pages from the text were scanned and imported into modeling software to create a three-dimensional representation of the page-turning experience. The resulting animations were then converted to Flash for web-based accessibility. Like existing Turning the Pages online books, the library's version contains zooming features, descriptive text about the plates and original text, audio files, and hyperlinks to additional resources.

**Outcomes:** This project will make invaluable historical resources accessible globally, elevating the visibility of the EBL's unique collection to audiences worldwide. Plans for additional projects include a rare maritime surgical text, botanical and nutritional texts, and other representative texts from the library's collection. This ongoing project will not only create virtual and preservation copies of portions of the library's collection, but will also add important historical texts to the biomedical and scholarly research base.

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### Information Management: "Compounds Capable of Relieving Pain without the Loss of CONSCIOUSNESS" (See Medical Subject Headings for Analgesics)

**Mia S. White, AHIP**, Reference Librarian; **Anna Getselman**, Associate Director; Woodruff Health Sciences Center Library, Emory University School of Medicine, Atlanta, GA

**Objectives:** We acquired QUOSA, an information management system, as the first line of defense to treat known "pain symptoms" of information retrieval and management. Launching our QUOSA marketing campaign with an open mind and flexibility allowed us to discover critical user needs. In turn, it prompted our users to realize needs they did not know they had and rediscover librarians.

**Methods:** The QUOSA marketing campaign was designed to target known, unmet user needs. All sessions were structured as open-ended interactive "conversations" with users. Each session was followed by debriefing as a needs assessment tool. Demonstrating QUOSA's functionality searching in native interfaces of PubMed, Ovid, Web of Science, and Google evolved into search clinics and follow-up consults. Self-directed searchers discovered that these interfaces had more exciting features and functions than they imagined. QUOSA's Sync and Link interaction with EndNote prompted more interest in and awareness of the program and led to a flood of EndNote workshop requests. QUOSA's advanced features such as My Article Organizer and Concepts4Clustering raised recognition of personal "information overload" and the importance of systematic personal information management. It brought to the fore the difference between bibliographic databases and full-text searching and made "text mining" concept a reality.

**Results:** As QUOSA became a hot commodity, users from around the campus began consulting with us regarding special research projects that required our expertise in searching and information organization. QUOSA became a marketing tool that raised library visibility and awareness of librarians' knowledge and expertise. As a result, it led to us taking on new roles and to a greater dialogue between librarians and faculty.

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### Medical Librarians in Disaster Preparedness, Response, and Recovery

**Stacey J. Arnesen**, Advisor for Special Topics; **Gale A. Dutcher**, Head, Office of Outreach and Special Populations; **Cynthia B. Love**, Technical Information Specialist; **Steven J. Phillips**, Associate Director, Specialized Information Services; National Library of Medicine, Bethesda, MD

**Objective:** To discuss the potential roles for medical librarians in disaster and emergency settings as well as the competencies for the creation of a specialization as a disaster information specialist.

**Methods:** Disasters include public health emergencies and man-made and natural disasters including pan-

demically influenza and catastrophic storms. Information is a critical component for successful disaster preparedness, response, and recovery efforts. There are numerous ways libraries and library networks can participate in these efforts. However, medical librarians may need to develop an additional body of competencies such as subject knowledge, and technical proficiency, as well as comfort with nontraditional activities and work environments. Medical librarians will not only need to work with their emergency departments, but also with community emergency responders and disaster planning committees. Disaster-related subject areas may range from such traditional topics as infection control to how the weather can affect dispersal of radioactive material from a dirty bomb.

**Conclusions:** The new Disaster Information Management Research Center at the National Library of Medicine launched a Disaster Information Specialist Pilot Project in fall 2007 to experiment with and report on possible roles for medical librarians in disaster preparedness, response, and recovery. Pilot project partners include the medical libraries at Sarasota Memorial Hospital, the Uniformed Services University of the Health Sciences, National Institutes of Health, New York University, and the Bethesda [MD] Medical Libraries Emergency Preparedness Partnership. Each library is collaborating with its community's disaster planners, emergency responders, and/or researchers to assess and meet a diverse range of disaster-related health information needs. Reported experiences and findings from this pilot (and from other libraries already engaged in similar activities) will be used to further develop ideas, recommendations, and training for librarians interested in disaster information.

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### Health Sciences Librarians in Michigan: Connecting to Emerging Web 2.0 Technologies

**Misa Mi, AHIP**, Senior Information Resources Specialist, Library Services, Children's Hospital of Michigan–Detroit; **Sandra Swanson**, Medical Librarian, Amos Crist Health Sciences Libraries, Mercy General Health Partners, Muskegon, MI; **Marie-Lise Shams, AHIP**, Librarian, Dental Library, University of Detroit Mercy, Detroit, MI

**Objectives:** Web 2.0 technologies are changing the way information is disseminated and the way knowledge, explicit or tacit, is captured, constructed, and organized. The purpose of this study is to investigate how medical librarians perceive the usability of Web 2.0 technologies and how they adopt them for their library practice and collaboration and interaction among librarians.

**Method:** Web 2.0 technologies look promising and imply applications in continuing medical education, patient education, health information provision, and librarians' professional development. It is important for health information professionals to become aware of the increasing role of these technologies in disseminating new information, sharing knowledge, and fostering communities of practice. A survey will be conducted to investigate whether librarians use any Web 2.0 technologies; types,

applications, obstacles, and difficulties encountered; and response of library patrons and staff. An online questionnaire will be administered to members of the institutions. The results of the survey will help identify forces driving the adoption of Web 2.0 technologies by librarians and factors hindering the application of these technologies and help the professional organizations make informed decisions about continuing education offerings and professional development programs.

**Results:** Medical librarians use Web 2.0 technologies to keep abreast of developments in the profession and for collaborating with colleagues. However, few have developed content. Respondents are most comfortable with blogs, wikis, and news aggregators. Barriers include lack of training, time, and ideas for using Web 2.0 tools to provide library services. Respondents report their institutions blocking access to Web 2.0 tools, most often media sharing and social networking sites. They learn about Web 2.0 through conferences and networking, but email lists, newsletters, and journals are still important sources. Over 80% would benefit from training; hands-on training in a computer lab is preferred. The area of most interest is media production and sharing.

**Conclusion:** Medical librarians are likely to embrace Web 2.0 technologies that can be put to use in providing library services. Conferences and hands-on continuing education opportunities are preferred venues for learning about Web 2.0 tools.

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#### **An Analysis of Clinical Questions Asked at Professor Rounds: A Retrospective Review**

**Nancy A. Bianchi**, Health Sciences Librarian, Dana Medical Library, University of Vermont–Burlington

**Objective:** The characteristics of clinical questions asked at residents' educational conferences and the resources used to answer them have yet to be discussed in the literature. The present study was conducted to analyze clinical questions asked at pediatric professor rounds and to describe the sources of answers. This research has implications for medical curricula development, library collections, and library liaison activities.

**Methods:** Professor rounds is a biweekly educational conference in pediatrics attended by residents, medical students, full-time faculty, community preceptors, and a liaison librarian. Each conference highlights a general pediatric, pediatric intensive care unit, neonatal intensive care unit, or outpatient case presentation followed by a didactic session. The librarian participates at professor rounds by actively listening, noting pertinent patient details, and gathering questions that arise during the case presentations and discussions. These questions may be direct requests for information or they may be queries embedded in the discussions that the librarian recognizes as an information need. Back at the library, the librarian searches the literature for answers to these clinical questions and returns her findings to the chief resident. A four-year retrospective review of these clinical questions and the resources used to answer them was conducted.

**Results:** The liaison librarian collected 154 clinical questions at pediatric professor rounds during this 4-year time period. Of these, 97 (63%) questions were classified as "received" or direct inquiries. The remaining 57 (37%) questions were captured by the librarian as "perceived" information needs from the case discussions. The questions were further classified using the evidence-based clinical practice model of "background" and "foreground" questions. The 154 clinical questions included 109 (71%) background questions and 44 (29%) foreground questions. Information resources that provided the answers included textbooks (8%), journal articles (67%), textbook and journal article (9%), and other (4%).

**Conclusions:** Clinical questions are frequently encountered at educational conferences such as professor rounds. Most of these queries can be answered using print and electronic medical knowledge resources available through the library. These questions and the resources used to answer them represent opportunities for clinical case-based learning, information literacy, library collection development, and library liaison involvement.

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#### **Connecting an Underserved Community with Consumer Health Information: The Clinical Informationist's Role in a Health Education Program**

**Elaine C. Mosher**, Library Coordinator; **Diane G. Schwartz**, AHIP, FMLA, Library Director; **Elizabeth Eisenhauer**, Clinical Informationist; **Helen Anne Wolf**, Program Coordinator; Medical Library, Kaleida Health, Buffalo, NY; **Kavita P. Ahluwalia**, Assistant Professor of Clinical Dentistry, Division of Community Health, Columbia University, New York, NY; **Donna Slawek**, Nurse Practitioner, Women's Health Clinic; **Karen Lamson**, Clinical Informationist, Medical Library; Kaleida Health, Buffalo, NY; **Tracy Diina**, Executive Director, Administration, Literacy Volunteers of Buffalo and Erie County, Buffalo, NY

**Objective:** To illustrate the critical role of the hospital clinical informationist in the development and implementation of a home visitation health education program. The program was designed to address unmet needs, improve fundamentals of health for children in poverty, and bridge gaps in services.

**Methods:** Focus groups were conducted with adults and children to understand health education needs. The clinical informationist and other project team members used these data to develop a culturally relevant health education curriculum and home visitation manual. Topics included nutrition, hygiene, home safety, childhood immunization, and lead poisoning. A team comprising a nurse, clinical informationist, and interpreter delivered the intervention in homes. In addition, families were linked with local service providers (hospital environmental services, food banks, and social services as needed). Health literacy and English as a second language services were unmet needs in this population; consumer health information materials were modified; and some materials were recorded in audio format in native languages. Pre-

and post-intervention data were collected to determine the effectiveness of the intervention.

**Conclusions:** The hospital clinical informationist actively researched, planned, implemented, and participated in this innovative health education program, demonstrating that unconventional library services can add value and support to community projects. Thirty-four homes were visited, and linked with services. Post-intervention evaluation is in progress and will be completed by March 2008.

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### **Library as Place: Defense of the Physical in a Perceived Virtual Environment**

**Karen W. Dillon**, Manager, Library Services, Health Sciences Libraries, Carilion Clinic, Roanoke, VA

**Objective:** Research trends in library space utilization and develop strategies to respond to leadership's perception that the library could be eliminated and service delivered virtually throughout a seven-hospital system during a time when the two largest hospitals were undergoing consolidation and space constraints existed.

**Methods:** A literature search was conducted; input was requested from MEDLIB-L; a background report was prepared; and a focus group convened. Stakeholders from medical education faculty, internal medicine residency, nursing leadership, information technology and continuing medical education participated in a discussion facilitated by a human resource educator. Observers included library and media staff, facility planners and nursing and medical education leadership. The focus group addressed how library and media services meet current needs, how services compare with other institutions, what internal technology opportunities exist that might impact service, what resources in the market might be applicable, and library as a physical versus virtual place.

**Results:** Leadership gained an understanding of need for a centrally located physical place that offers a quiet, comfortable place for study, group work, and access to staff; purchase of additional costly electronic content; provision for diverse learning styles; importance of library's role in instruction and computer access; support for physician competency development and emerging clinical research program; and value of library to organization's image and recruitment of residents and physicians. In October 2007, two libraries were consolidated and relocated to a smaller space. Print and media collections were reduced with appropriate materials relocated to an affiliated college of health sciences. Funding was approved for purchase of four NetLibrary collections, R2 and OVID ebooks, and additional full-text journal content.

**Conclusion:** The focus group process resulted in a better understanding of the importance of maintaining the library as a place while responding to possibilities offered by technology and evolving skills of users.

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### **"Phantom FTE's" in a Hospital Medical Library**

**Robert T. Neumeyer**, Coordinator, PMHS Libraries and Archives, Pittsburgh Mercy Health System, Pittsburgh, PA

**Objective:** Health care's changes in the recent past have led to staff reductions in the hospital setting nationwide, so it is not unusual that the trickle down effects hospital medical libraries as well. Many hospital medical libraries point to budgetary constraints as a primary concern for the staffing needs of medical libraries. Our library has met the challenge, put our ingenuity to work, and spotlighted the library's ability to find these valuable "Phantom FTEs" to offer valued added services. What is a Phantom FTE? That definition will become evident in the methods section.

**Methods:** Be aware of what is happening in your professional hospital library community. Knowledge is power. Securing library contract services can be parlayed into additional staff. Market your library to your institutions volunteer services department. Check with your human resources department on the institutions policy on work-study student programs. Contact you local college or university and inquire if they have a graduate program in library science. See if your institution's foundation offers summer internships for high school seniors. Contact your human resources department to see if they offer a junior volunteer program.

**Conclusions:** Our library met the challenge, collaborated with administration and secured, developed, and nurtured value-added programs that permitted our library to obtain those needed Phantom FTEs. We reached out into the library community, captured library service contracts and parlayed them into an additional staff person. We collaborated with our volunteer services department and received college student placements (most studying course work in health sciences). We initiated a work study program with four universities that provided us with college students most at no or little cost. Partnering with our local university's library science graduate school, we offered our library as an internship site for students in the graduate library program. We obtain an average of eight Phantom FTEs per academic year. These programs have permitted our library to secure our Phantom FTEs: who help provide the highest level of customer service and spotlights the library as a benchmark for service excellence.

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### **Toolkit for Effective Collaboration**

**Ulrike Dieterle**, Distance/Outreach Coordinator, Ebling Library, University of Wisconsin-Madison

**Objective:** Based on a series of successful collaborations, this 3-D poster will provide a roadmap for the collaborative journey, a sample toolkit for successful outcomes, and tips to avoid misadventures along the way.

**Methods:** Collaboration is both a process and an outcome. It is a complex mix of clear communication, focused commitment, continued discovery and perpetual recovery. It involves planning, decision making, problem solving, goal setting, sharing, and flexibility. When successful, it can build long-lasting partnerships and rewarding results. Learn how you can sharpen your collaborative skills and focus the power of group energy toward a

defined objective. Based on a series of successful projects between librarians and faculty in an academic, special library environment, this poster will provide an overview of components in the process, the toolkit needed for productive outcomes, a roadmap of the collaborative journey, and tips to avoid misadventures along the way.

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### **Building Team Connections in a Health Sciences Library Using the DISC Profile**

**Nancy Allee, AHIP**, Deputy Director; **Jane Blumenthal, AHIP**, Director; Health Sciences Libraries, University of Michigan—Ann Arbor

**Objective:** This project describes a year-long staff development initiative to foster team building and improve communication in an academic health sciences library. A planning group designed the workshop agendas, helped promote the initiative to maximize outcomes, analyzed the results, and prepared a report outlining ideas and recommendations.

**Methods:** This project is a case study, profiling a staff development initiative in an academic health sciences library. An eight-member planning group helped coordinate the overall project. Two workshops, focusing on team building and communication, were held for a group of forty staff, following the completion of the DISC online profile instrument. The DISC profile instrument is designed to understand individual behavioral strengths and challenges as well as those of others, learn to value the differences and strengths of others, enhance teamwork and reduce team conflict, develop strategies and awareness to deal with diversity of people and their communication styles and needs, improve communication skills through determining communication styles, and enhance and develop coaching and mentoring skills. Analysis of the resulting individual profiles and group culture reports helped facilitate the building of a positive, effective, and efficient work environment.

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### **Connecting University Initiatives in Health Literacy: Virginia Commonwealth University Librarians Help to Bridge Gaps**

**Jean P. Shipman, AHIP**, Director, Tompkins-McCaw Library for the Health Sciences, and Associate University Librarian; **Shannon D. Jones**, Head, Outreach Services, Tompkins-McCaw Library for the Health Sciences; **Sarah E. Amick**, Executive Assistant, VCU Libraries; Virginia Commonwealth University—Richmond

**Objective:** A Virginia Commonwealth University (VCU) multi-campus Health Literacy Special Interest Group was created and is led by librarians to assist university personnel in understanding the importance of health literacy, to inform them of one another's efforts in this area, and to facilitate the sharing of information about and the latest developments in health literacy.

**Methods:** VCU librarians encouraged key university faculty to join together informally to discuss potential

collaborations for health literacy-related grants and contracts. From these initial ad hoc meetings, a more formal special interest group (SIG) was created that meets on a quarterly basis in the Tompkins-McCaw Library. Library personnel maintain a membership list, cull agenda topics for meetings, and arrange for special speakers. They also publicize upcoming meetings and document meeting proceedings. They created a BlackBoard course to serve as a repository of the SIGs' knowledgebase and a website to further promote the SIG throughout VCU. A database of published literature was generated using RefWorks, with shared SIG input possible through RefShare. The website also includes an inventory of current VCU projects and grants related to health literacy.

**Conclusions:** Originally formed to encourage grant applications, the SIG now serves as a vehicle for members to communicate their efforts. Meetings rotate between having sharing sessions among the membership to invited speakers. The SIG is three years old and includes over thirty-five members representing university departments and community agencies. Librarians serve as conduits for connecting university personnel interested in health literacy. Their efforts have kept the topic front and center among personnel in many departments that would otherwise not be connected. A VCU Center for Health Disparities has included health literacy as one of its educational goals; the SIG is assisting with supporting the center's training efforts and topic promotion. Provision of a centralized repository that documents university efforts regarding health literacy is an efficient means of preserving local knowledge of the topic. A shared database of published literature, accessible to all university personnel, facilitates the writing of grants.

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### **Reaching New Levels: Creating a Career Ladder for Support Staff**

**Jane Fama**, Associate Director, Public Desk and User Services; **James Comes**, Associate Director, Education and Research Services; **Vivian Frempong**, Interlibrary Loan Supervisor; **Barbara Ingrassia, AHIP**, Associate Director, Strategic Initiatives and Work Force Development; **Kerry Mayotte**, Circulation Supervisor; **Lisa Palmer**, Librarian; **Mary Piorun, AHIP**, Associate Director, Technology Initiatives and Resource Management; Lamar Soutter Library, UMass Medical School, Worcester, MA

**Objective:** How do we manage support staff development in modern health sciences libraries? Increasingly, the need for more highly skilled staff is evident. This poster describes a three-phase project encompassing development, approval, and implementation processes necessary to make a career ladder a reality in a medium-sized academic health sciences library.

**Methods:** The management team gathered information from library literature and business and government sources as a starting point. In the development phase, the team posed questions as the foundation for developing a competency-based program to manage support staff

development (e.g., What will support staff be doing in the future? Can we define the competencies staff will need? How do we create a flexible system that keeps us poised to respond to change? How do we build a skilled work force and prepare current staff to take on new tasks? How do we develop a measurement framework for objective employee evaluation?) In the approval phase, the emphasis was on educating the university's administration, human resources, and the union about the library's strategic direction and the benefits of the program to staff. The implementation phase focused on staff buy-in, roll-out timing, and developing training to ensure success for current and future staff.

**Conclusions:** Competencies, education, and years of service formed the promotion plan's basis. Managers identified task-based areas of responsibility, divided into achievement stages with frameworks detailed for objective employee evaluation. A policy for advancement, based on performance in multiple areas of responsibility, was developed. The plan allows for growth and promotion and encourages staff to build a knowledgebase across library departments. Throughout the planning process the team met with human resources, the union, and administration to explain program goals, as well as to address their concerns and incorporate their input as we developed the program details, resulting in a smooth approval process. For implementation, one manager assumed responsibility for coordinating orientation and training development. The team was surprised by initial negative staff reaction to increased responsibility and the certification/testing requirements. The team continues to face implementation challenges and issues.

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#### **Passion Through Art: First Annual Atlantic Health Family Art Exhibition**

**Patricia Regenberg, AHIP**, Library Manager, Health Sciences Library, Overlook Hospital, Summit, NJ;  
**Maria R. Lupo**, Creative Art Therapies Coordinator, Atlantic Integrative Medicine, Atlantic Health, Morristown, NJ

**Objective:** This poster will describe the first annual art exhibition held in June 2007 in the health sciences library. The 5,000 square foot, recently renovated library is directly off the main hospital library, making it an excellent choice for participation in the art exhibition. The exhibition—which displayed more than 130 works of art by health system physicians, employees, and their immediate family members—was on view at the health sciences library from June 19 to June 24, 2007.

**Methods:** The program was held in partnership with the National Arts Program, the works were judged by an impartial jury of professional artists, and prizes were awarded in several categories. The exhibit provided an opportunity for hospital employees to come to the library, many for the first time. The health system has pledged its support for the second annual art exhibition to take place in the library in June 2008. As a spin-off from this program a hanging system has been purchased for the library and

works of art will be exhibited year round. This partnership with the integrative medicine department has given the library a unique way of marketing library services.

**Results:** The program received rave reviews as did the artists who participated; it connected many to the library who previously were not aware of the library and the services it offers to them. The program showed the importance of art in our every day lives and placed the library in a brilliant new light.

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#### **Make Mine a Double: Librarian Office Hours Multiply Basic Services**

**Mellanye Lackey**, Public Health Liaison Librarian;  
**K.T.L. Vaughan**, Pharmacy Liaison Librarian; Health Sciences Library, University of North Carolina–Chapel Hill

**Objective:** Library liaisons for the public health and pharmacy schools independently designed onsite “office hours” to promote and provide library services to constituents who may not come to the physical/virtual library.

**Methods:** Two librarians held office hours during 2006–2008 in their respective schools. They provided onsite help with a range of information literacy topics. Implementation of office hours differed in terms of physical/virtual setup and program promotion. Student use of librarian office hours started slowly but then increased through the following three semesters. However, staff and faculty took advantage of the drop-in time. Both librarians developed new contacts as a result of promoting their services. Further aspects of the two programs will be compared, including the effects of promotion, the nature of the space, and online/virtual versus physical hours.

**Results:** In 2006/07, thirty-six people visited public health office hours. In fall 2007, over forty people attended public health office hours. As word spread, the librarian began getting calls requesting targeted search help and noted an increase in referrals for in-depth, research consults. Ninety-one school of pharmacy affiliates used office hours during 2006/07. Email reminder notices generated twenty-one additional contacts. During the 2007 fall semester, twenty-four users visited pharmacy office hours. Doctoral students and faculty attended demonstrations. Professional students dropped in for point-of-need help.  
**Conclusions:** Librarian office hours can have significant impact for the library. Outcomes differed in some cases from what the librarians expected. The librarians expected to connect primarily with students but found that a significant number of staff and faculty used the service. Key to successful implementation of the program were factors such as buy-in from library and school administration, adequate advertising, and appropriate space and timing.

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#### **Applying a Logic Model to an Evidence-based Practice Outreach Training Program**

**Ruiling Guo, AHIP**, Health Sciences Librarian/  
Assistant Professor, Idaho Health Sciences Library;

**Janene Willer**, Clinical Associate Professor, Department of Communication Sciences and Disorders, and Education of the Deaf; **Barbara Bain**, Coordinator, Research Mentoring Program, Kaskiska College of Health Professions; Idaho State University–Pocatello  
**Objective:** To present the application of a logic model in the development, implementation, and evaluation of an evidence-based practice (EBP) outreach training program.

**Background:** A survey of information needs for speech-language pathologists (SLPs) and audiologists in Idaho was conducted in 2006. Participants reported that they lacked knowledge and skills for EBP and information searching for EBP resources related to speech-language pathology and audiology. They expressed interest in receiving training on EBP. Based on the survey results, an EBP outreach training program was planned, targeting these health professions. A logic model framework was used as a guide in planning and evaluating the EBP outreach training program.

**Methods:** Using the logic model, the project investigators identified the core components of the logic model and developed the program. Following the identification of the core components, a timeline was developed and the evaluation process was planned. Pre- and posttests and overall evaluation workshop forms were designed and administered to the workshop participants.

**Results:** Six core components of situation, input, output, outcomes, assumption, and external factors were identified. The situation was that speech-language pathologists and audiologists lacked EBP knowledge and searching. Input factors were faculty, health sciences librarians, funding source, partners, and facilities. Output included developing materials and delivering the workshops. Outcomes were changes for individuals. Assumptions were the beliefs the investigators had about the program, the people involved, and the way the program was considered. External factors referred to the environment in which the program was conducted. Specific details for the logic model will be shown in the poster.

**Conclusions:** The logic model served as a framework for developing the key components of the program. It provided the investigators with an overall picture of what was invested, what was done, and what the results were. A logic model, however, did not predict and resolve the actual problems that occurred.

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### Pharmacy Preceptors' Information Use Skills and Access to Drug Information

**Jonathan Koffel**, Education and Outreach Librarian, Hardin Library for the Health Sciences; **Susan Staggs**, Assistant Professor (Clinical), College of Pharmacy; University of Iowa–Iowa City

**Objective:** The goal of this research project was to determine which drug information resources pharmacy preceptors use most and what training they have received in drug information concepts and resources. The results will

be used to improve instruction in the college of pharmacy and create new training materials for preceptors aimed at improving their information use and patient care.

**Methods:** Descriptive survey: A survey was designed in collaboration with faculty from the college of pharmacy at a large research university and received institutional review board approval. This survey was then placed online and a link was sent via email to the college's preceptors (practicing pharmacists who oversee 4th-year doctor of pharmacy students who are on rotation). We received 121 responses. The survey included questions on which resources are available at the pharmacy site, which are most useful, what training the preceptor has received in the use of such resources, and what the preceptor's comfort is in answering drug information questions. We analyzed the results to determine whether there were significant differences based on type of practice site or preceptor demographics.

**Results:** Drugs Facts and Comparisons and Micromedex were the most frequently owned resources and those which respondents considered most useful in their practices. The most endorsed methods of learning about new drug information resources were word of mouth from colleagues (78%) or from pharmacy students on rotations (62%). While the vast majority of respondents (93%) felt confident that they could locate the best information to answer drug information questions, most (55%) had not received instruction in drug information searching since receiving their pharmacy degrees and 59% reported frequently learning new things about drug information searching from students on rotation. Eighty-four percent of respondents were interested in receiving more continuing education in the use of drug information resources. The major differences between groups were on which resources were available and used most.

**Conclusion:** These results show that additional training in drug information skills and concepts should be made available to preceptors.

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### Academic Medical Center to Rural Clinic: Ensuring Fair and Accurate Representation in Go Local

**Shiela Phillippe**, Health Sciences Librarian; **Marianne Burke**, AHIP, Library Director; Dana Medical Library, University of Vermont–Burlington; **Alan Lampson**, Coordinator, Frymoyer Community Health Resource Center, Fletcher Allen Health Care, Burlington, VT; **Tina Kussey**, Collection Management Librarian; **Lesley Boucher**, Circulation Supervisor; Dana Medical Library, University of Vermont–Burlington

**Objective:** Problems encountered with the development of a web-based health care directory for a Go Local project have not been fully described. This report will identify unfairness as a problem perceived by an academic medical center and its resolution. Database developers using similar procedures may reduce problematic perceptions by key partners.

**Methods:** We were funded in April 2005 to index health care providers and facilities into a web-based health care

directory. In response to concerns expressed by the academic medical center administrators that the database did not accurately represent their clinics and providers, the Go Local team reviewed the hospital's records. The hospital management provided staff to review their own website and directories. New definitions and procedures were developed affecting the application of service terms especially clinic and provider terms, health topics, and geographic distribution. All hospital services were identified with the hospital staff checking the accuracy of provider addresses, names of facilities, and types of clinics. New indexing and quality control procedures were implemented to consistently apply Go Local service terms and health topics. Currently, all the community hospital records are being audited to ensure that the revised procedures have been applied.

**Results:** Seventeen Vermont hospitals (including outpatient clinics, ambulatory care centers, and providers) were identified using the Vermont Association of Hospitals and Health Systems directory. Our staff used the new definitions and procedures noted above that were implemented during the 2006 revisions of the academic medical center's (AMC) records. During the past six months, we have reviewed approximately forty-five records. Thirteen of the AMC records required revisions consisting of changes in addresses and telephone numbers. Seven of the community hospital records had to be revised; these revisions consisted of inaccurate service terms and health topics.

**Conclusions:** Hospitals are very stable entities; however, gathering information to ensure a fair and accurate representation about every hospital clinic, ambulatory care center, and provider listing is a very daunting task. Auditing each hospital's record periodically is necessary so that timely revisions can be made to ensure accuracy.

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### **Bridging the Health Information Gap for Hospital Nurses**

**Christine Shaw-Daigle**, Hospital Librarian, Victoria General Hospital Library; **Lisa Demczuk**, Hospital Librarian, Grace Hospital Library; **Analyn Cohen Baker**, Hospital Librarian, Seven Oaks General Hospital Library; **Melissa Raynard**, Hospital Librarian, Concordia Hospital Library; **Lori Giles-Smith**, Hospital Librarian; **Patricia Barrett**, Librarian, Neil John Mclean Health Sciences Library; University of Manitoba–Winnipeg, Canada

**Objectives:** To develop library services that support nurses in meeting their new professional continuing competency requirement and to connect nurses directly to quality information for practice and lifelong learning.

**Description:** Licensed practicing nurses must document their continuing competency on an annual basis. Recognizing an emerging information need, we developed several onsite and virtual library programs and services to help community hospital nurses meet their new professional requirements. Our goals were to provide in-person research and library consultation services to front-line

staff and to develop creative and innovative ways to deliver evidence-based information directly to nurses at the unit level. Simultaneously, the Regional Health Authority Nursing Leadership Council (RHANLC) recognized a growing gap in nurses taking leadership roles in the health region. Partnering with other health sciences librarians, we expanded our online resource guides into an online learning support tool to bring leadership literature to potential nurse leaders.

**Results:** The following personalized library services to support the continuing competency goals of nurses were developed.

- On the Unit is a scheduled in-person visit to consult with nurses about their information needs.
- Webliographies are a series of online resource guides for nursing-specific topics. Cooperating with the RHANLC, we enhanced the webliography format into an online and interactive learning support tool for leadership development.
- Competency Collection: Information Pathfinders are customized information packages designed for nurses. Print packages of information are readily available on units throughout the health care facilities.
- Info-RN is an electronic newsletter highlighting nursing resources, library services, and information literacy concepts.

We identified the unique information needs of nurses and created innovative ways to deliver evidence-based information directly to them. These new services provided an opportunity for librarians to contribute to the development of effective nurse clinicians and future nurse leaders.

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### **What Works: Improving Health Literacy in the Real World**

**Kelly K. Near**, Outreach Librarian, Information Services, Claude Moore Health Sciences Library, University of Virginia–Charlottesville; **Cindy Westley**, Director of Patient and Family Education, Medical Center Administration; **Laura Humbertson**, Coordinator, Medical Center–Consumer Health Info; University of Virginia Health System–Charlottesville

**Objective:** The objective of this Express Outreach Award project was to bring practicing literacy tutors and educators together with patient educators from the community to discuss a range of currently available health literacy interventions during a facilitated working session. From discussions held during the working session, participants would develop a plan for targeted health literacy training for area patients and providers.

**Methods:** Project leaders evaluated and hired professional facilitators for a facilitated working group. The group consisted of staff from Literacy Volunteers of America, local adult educators, and health care providers. A survey sent to participants indicated overwhelmingly that group members rated “using medications” as the most important health literacy issue for the global population of clients and patients that they served. During the session,

the working group engaged in a “force field analysis” and decided collectively on the following four categories for attention in the area of medication education and use:

1. Written: instructions and labeling
2. Verbal: interview and assessment
3. Health care educators/providers education
4. Common med list

Action items were then discussed and decided on for each category.

**Results:** A second working group meeting was held in November 2007 to discuss progress made on the action items decided on at the initial meeting. Actions included integrating a collaboratively developed “personal medication card” into local hospital and pharmacy routines as well as into literacy education curriculums.

**Conclusions:** Evaluation of the personal medication card will be ongoing. Relationships have been established between health educators and literacy educators as a result of this project and the health literacy working group continues to meet and collaborate on joint initiatives and training activities.

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#### **Forging New Directions: Launching a Scholarly Communications Initiative**

**Cathy Sarli**, Scholarly Communications Specialist, Bernard Becker Medical Library, Washington University, St. Louis, MO

**Objective:** The complexity of research in the 21st century, coupled with the transformation of information technology and the heightened scrutiny of responsible conduct of research, has presented challenges for effective knowledge management. To address these issues, a scholarly communications initiative was implemented to develop sustainable services and resources to support teaching, research, and scholarship endeavors.

**Methods:** A scholarly communications program was developed by a medical library serving a school of medicine comprising twenty-one academic departments, eleven programs and divisions, and nine specialized research centers. A series of resources and services were identified to provide support for library users on campus in the creation, access, dissemination and preservation of knowledge in accordance with responsible conduct of research practices. Advocacy and outreach efforts focused on presenting all viewpoints from a neutral perspective to allow library users to make informed decisions without influence or bias. Opportunities for potential collaboration with nonlibrary campus units were targeted to leverage expertise and resource sharing in order to promote cohesive program efforts without duplication. Dissemination of scholarly communications program efforts were utilized to reach the widest possible audience including use of Web 2.0 tools.

**Results:** This program results in successful outcomes when assisting authors in complying with the National Institutes of Health (NIH) public access policy and educating them about the subtle nuances involved with compliance. Our interaction with NIH-funded authors

has allowed us the opportunity to introduce often misunderstood scholarly communications issues such as author rights, open access, and translation of research impact. Outreach efforts directed towards nonlibrary groups have resulted in collaborations such as a Copyright Taskforce with the Office of General Counsel, working with a medical department in assessing the translational impact of a clinical trial and partnering with the Office of Research in providing education on the NIH mandate and development of responsible conduct of research training modules.

**Conclusions:** Lessons learned after one year of launching the scholarly communications initiative include being flexible in adapting to the needs of users is important, maintaining neutrality enhances credibility, and partnerships outside of the library are vital to expanding outreach efforts.

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#### **Disaster and Emergency Preparedness Information for Special Populations**

**Gale A. Dutcher**, Head, Office of Outreach and Special Populations; **Deena M. Pers**, Technical Information Specialist, Division of Specialized Information Services; National Library of Medicine, Bethesda, MD

**Objective:** To provide relevant information for community officials and health and human services providers regarding the needs of special population groups in planning and preparation before and response and recovery after disasters and emergencies. To provide information to assist members of special population groups in preparing for disasters and emergencies.

**Methods:** A website on health issues related to disasters and special populations was created after natural disasters such as hurricanes and wildfires, diseases such as SARS and West Nile Virus, and the terrorist attacks of 9/11 illustrated the need to ensure widespread access to knowledge about populations with unique needs in these situations. The population groups addressed in the website include the mentally and physically disabled, the aging, minority, ethnic and language groups, women and children, and others whose situations require different or specialized measures be taken both in preparation for and response to disasters. The information resources are intended to be used for planning and response purposes by community public health and emergency planners and by families and individuals.

**Results:** The resource became public in January 2008 ([www.sis.nlm.nih.gov/outreach/specialpopulationsanddisasters.html](http://www.sis.nlm.nih.gov/outreach/specialpopulationsanddisasters.html)) with approximately seventy-five links plus subject searches of MedlinePlus and PubMed. The authors found the very large number of sites on the subject and selection was a challenge. Many state and local government and organizational sites were high quality, however the selected links presented on this page are primarily national in scope.

**Conclusions:** The authors were impressed with the large volume of documents available related to the special

requirements of specific population groups. It is of critical importance that those planning for disaster response recognize that there are groups with special needs and prepare for them.

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**Measuring the Effectiveness of Community Outreach: The Community Medical School Project**

**Laura Haines**, Outreach and Electronic Services Librarian, Dana Medical Library, University of Vermont–Burlington

**Objective:** This study seeks to measure the effectiveness of a community outreach project designed to increase community members' knowledge and use of consumer health information resources and services at the medical library.

**Methods:** The Dana Medical Library at the University of Vermont maintains a dynamic consumer health book collection that circulates freely to the public but generally sees low use. The University of Vermont's College of Medicine and its teaching hospital, Fletcher Allen Health Care, collaborate to provide "Community Medical School," a community lecture series taught by college and hospital faculty covering a variety of health topics. Dana Library staff set up a table at each lecture to display books from the consumer health collection, consumer-oriented health information, a list of print and online resources, information regarding the library's services, and more. Lecture attendees may obtain a consumer health borrower's card and borrow displayed books on the spot. A website is available for attendees with links to resources on lecture topics. Circulation statistics, number of borrower cards issued, and web usage statistics were measured to determine the impact of the program. Feedback on the value of the library's participation in "Community Medical School" was gathered from attendees.

**Results:** Circulation statistics indicate as much as a 26.8% increase in usage of the consumer health collection after library involvement in "Community Medical School," and a maximum of 1,001 hits on an accompanying web resource guide. The number of consumer health borrower cards issued has increased dramatically since the inception of the program. Most importantly, a qualitative evaluation of the program revealed unexpected outcomes: quality improvement of the consumer health collection, improved relationships with the college of medicine and hospital, and increased communications with local public libraries.

**Conclusions:** The library's outreach program to "Community Medical School" positively impacted the use of services and collections marketed to consumers. However, the benefits indicated through qualitative analysis of the program demonstrate that the effectiveness of a library's community outreach program cannot be measured by quantitative means alone.

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**Tox Town en Español**

**Cynthia B. Love**, Technical Information Specialist; **Judy Kramer**, Contractor, LMIT, Specialized Information Services Division; National Library of Medicine, Bethesda, MD

**Objective:** The Tox Town website introduces students and the public to information on environmental health concerns, toxic chemicals, and hazardous substances in everyday life. The objective of this project is to enhance the Spanish-language version of Tox Town with the addition of a graphical interface and translations of content now available only in English.

**Methods:** The Tox Town website will add a Spanish-language version of its graphical interface that uses pictures, animations, and sound to enhance user interest in environmental health topics. Development of the Spanish website will build on lessons learned from similar website projects such as *infoSIDA* and *MedlinePlus en español*. This project will look at issues that may arise in offering information in Spanish in a subject area, environmental health and toxicology, that currently has few web resources, and that may be a challenge for translators not familiar with the subject. The usefulness, appeal, and appropriately written content of this enhanced Tox Town *en español* will be evaluated by potential users and by current users of the limited Spanish resources already available in Tox Town.

**Conclusions:** For any one topic, such as drinking water or arsenic, there are numerous English-language web links to choose from but only a handful in Spanish that meet Tox Town's selection criteria for inclusion as recommended links. To supplement the limited web resources already available in Spanish, nearly 100 pages of background information describing environmental health concerns were translated and reviewed by a team of bilingual health information specialists. This information is now available to the user through a graphic representation of neighborhoods or a text-only interface identical to the English-language version, with easy toggling between the Spanish and English versions.

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**Somewhere Between the Monster Truck Pull and Desperate Housewives: Successful Marketing Connects Web Media to Health Information Consumers**

**Sally M. Patrick**, Outreach Librarian, Utahealthnet Principal Investigator, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

**Objective:** Present to health sciences librarians a successful, creative, yet cost-effective marketing strategy to promote a statewide consumer health information portal utilizing popular local web media outlets.

**Methods:** The Spencer S. Eccles Health Sciences Library at the University of Utah Health Sciences Center is in the final year of a National Library of Medicine-funded consumer health information infrastructure project. The goal is to create a statewide partnership of health information providers, making their resources available

through training, marketing, and a “one-stop shopping” consumer health portal, Utahealthnet (utahealthnet.org). One of the most challenging goals of the project has been to market Utahealthnet within a restricted budget. Using carry-over funding from previous years, the project director reallocated more substantial resources for public relations. A local public relations firm was hired to design and execute a modestly funded statewide public relations campaign. The firm was responsive to the librarian’s description of goals, intended audience, demographics, and heavy web penetration throughout Utah’s predominantly rural landscape. The most highly successful part of the campaign proved to be Internet marketing on local TV station websites.

**Results and Conclusions:** In six months, web hits to Utahealthnet increased fourfold. While radio ads and interviews were moderately successful, by far the biggest increase in website usage was tracked from “impressions” and “pass through” from Utahealthnet graphics on local affiliate TV station websites-ABC, CBS, and NBC. In the six months after the promotional campaign, traffic on Utahealthnet has tapered off but is still far greater than before the Internet marketing campaign. The data presented on the poster demonstrate that librarians can reach new consumer health information seekers in a cost-effective manner by advertising resources utilizing the electronic venues most popular with targeted audiences.

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#### **Bioinformatics Self-help Tools 24/7**

**Courtney D. Crummett**, Visiting NLM Associate Fellow, Science and Engineering Libraries, Massachusetts Institute of Technology–Cambridge; **David Osterbur**, Access and Public Services Librarian; **Paul Bain**, Reference and Education Services Librarian; Countway Library of Medicine, Harvard Medical School, Boston, MA

**Objective:** Convert in-person bioinformatics instructional content into video tutorials. A cross-institutional team of bioinformatics and multimedia production specialists from the Massachusetts Institute of Technology’s (MIT’s) Engineering and Science Libraries and Harvard’s Countway Library of Medicine was formed to develop a series of video tutorials demonstrating use of core bioinformatics resources from the National Center for Biotechnology Information (NCBI) and other organizations. The series will be cohosted by both institutions to reach an audience with shared learning needs, the Harvard-MIT Division of Health Sciences and Technology (HST).

**Methods:** Short video tutorials highlighting NCBI resources Gene, MapViewer, BLAST, and BLINK will be created using Camtasia Studio software. Content and production will be managed by a cross-institutional team. The target audience ranges from third-year undergrads to graduate students, postdoctoral fellows, and scientists in the HST community. The source material will be adapted from in-person instructional content developed by bioinformatics specialists. The multimedia production style and organization are based on instructional content

developed to support an undergraduate science curriculum. Tutorials will be accessible to the common user community of the institutions via a shared space. The value and impact of the user will be assessed. Lessons learned during production and deployment will be shared.

**Results:** Bioinformatics instructional video tutorials were created using Camtasia Studio software. Bioinformatics resources highlighted include: the University of California-Santa Cruz Genome Browser, BLAST, Blink, and Related Sequences. Tutorials were hosted by both MIT Engineering and Science Libraries and Harvard’s Countway Library of Medicine on library web pages for self-paced discovery by users.

**Conclusions:** Leveraging institutional expertise of individual libraries to support shared communities has led to a robust bioinformatics video tutorials series, the Bioinformatics Tutorials Series (BITS). Providing bioinformatics video tutorials has enhanced the relationship between the individual libraries and helped better connect the libraries and HST community.

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#### **Research First Aid: Two Libraries Reaching Out with One Podcast**

**Amy E. Blevins**, Liaison/Information Services Librarian, William E. Laupus Health Sciences Library; **Mark Sanders**, Interim Assistant Head of Reference, Joyner Library; East Carolina University, Greenville, NC

**Objective:** The purpose of this project was to create a public service announcement podcast as a joint effort by the health sciences and the academic libraries at East Carolina University. Because both libraries offer a lot of the same services, it makes sense to promote both libraries with one announcement. This university consists of more than 24,000 enrolled students and over 1,700 faculty (as of fall 2006). Over 4,400 students are distance education only. Both libraries are creating more information in online formats to reduce the knowledge gap between on campus and off campus students.

**Methods:** The program is called Research First Aid. All programs are hosted by one librarian from the health sciences campus and one from the main campus. Programs are around three minutes long and made available as screen casts (meaning users can view the program on their computer) and podcasts (meaning that users can subscribe to a feed so that new programs are instantly sent to their computers or portable devices.) It was decided that the screen casts would contain video as an additional feature, but the podcasts are available as audio only at this point. This ensures smaller file sizes for portable devices.

**Conclusions:** Research First Aid began as an audio podcast and has evolved into a program with options for viewing it online without a subscription and subscribing to a video or audio podcast. As of February 27, 2008, 4 episodes had been released with 1 program coming out every other week. The Research First Aid page was viewed 125 times with 94 unique page views (meaning

different computers) from January 21, 2008, to February 20, 2008. Around 6 people have subscribed to the video podcast, and none have subscribed to the audio podcast. These statistics, along with the results of an online survey and a paper survey of our academic library's student advisory group will be used to improve the quality and value of this program for our users.

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### **Connecting the Campus: Library Leadership in Social Networking**

**Alexa A. Mayo, AHIP**, Assistant Director for Services; **Stefanie E. Warlick**, Liaison and Outreach Services Librarian; **M. J. Tooley, AHIP**, Executive Director; Health Sciences and Human Services Library, University of Maryland–Baltimore

**Objective:** The library was interested in exploring and investigating the impact and future of social networking in an academic health sciences setting. Program content addressed implications for teaching and learning, research, service, and consumer health in a Web 2.0 environment. This poster reports on planning efforts, participation of a campus-wide advisory group, and feedback from symposium attendees.

**Methods:** The library applied for and received an award to fund the social networking symposium in spring 2008. A planning group made up of library staff was convened for the initial exploration of potential content and programming for the symposium. The planning group expanded to include library-wide subcommittees to organize and implement the symposium. These subcommittees focused on publicity, classes/workshops/guest speakers, vendor fair, registration, keynote speaker, and panelists. Members of the campus community and hospital were also invited to participate in informal advisory groups to share thoughts on how the event might benefit the campus. The advisory group assisted in generating ideas for the program and helped to increase faculty, staff, and student buy-in for the event across campus communities and departments.

**Conclusions:** The symposium, "Are You Connect.ed? Social Networking Tools for Collaboration, Teaching & Learning," was held on April 10, 2008. The program included a keynote speaker, panelists, vendor exhibits, a lunch session on privacy and security, a variety of short presentations addressing the practical aspects of social networking, and a "2.0 sandbox" with informal, hands-on sessions. Throughout the day, vendors demonstrated their products in the library's gallery and, to increase attendance, funded incentives such as catered breaks and raffle prizes. Wide-ranging publicity efforts included campus-wide digital display advertisements, Facebook Fan pages, and Are You Connect.ed? pen giveaways. The day ended with an afternoon reception. The poster will report on the success of the symposium, including attendance, popular sessions, most effective marketing practices, and useful collaborations with campus units that increased buy-in and attendance. Results of the symposium's evaluations will be reported.

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### **Librarians Supporting Health Sciences Programs in General Academic Libraries**

**Mary K. Taylor, AHIP**, Medical and Distance Learning Librarian, Morris Library, Southern Illinois University–Carbondale; **David A. Nolfi, AHIP**, Health Sciences Librarian, Gumberg Library, Duquesne University, Pittsburgh, PA

**Objectives:** Many health sciences librarians work in general academic libraries that support students and faculty in nursing, pharmacy, and other allied health programs. This study seeks to identify the challenges facing these librarians and to determine whether they feel that membership in professional associations provides needed support.

**Methods:** A web-based descriptive survey was used. Closed- and open-ended questions covered the types of educational institutions and programs, perceptions of challenges faced, budget support, professional association memberships, and funding for professional development. Selected potential participants were identified using data from MLA's Nursing and Allied Health Resources Section, and invitations to participate also were sent to MEDLIB-L and discussion lists affiliated with MLA, the Special Libraries Association, and the American Library Association.

**Results:** Preliminary results show that almost 75% of the respondents work in university libraries, and 72.1% support bachelor's of science in nursing programs (n=122). Health administration and social work were the most frequently supported non-nursing programs. Over 80% are liaisons to campus departments. Respondents (n=111) spent approximately 40% of their time assisting health sciences patrons and 26% of their time with non-health sciences patrons. They relied on discussion lists, professional conferences, and librarian colleagues for keeping current. Just over 20% had mentors. Although over 80% (n=112) ranked budgetary support as adequate, good, or excellent, inadequate budgets were the most frequently identified challenge.

**Conclusions:** Health sciences librarians in general academic libraries believe they face unique challenges in providing collections and services their patrons need, particularly when compared to librarians working in medical school libraries. Many feel a sense of isolation; professional associations may help them to connect with librarian colleagues, stay up-to-date, and provide better service.

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### **Why Wufoo? Collecting Data about Reference Desk Transactions Using an Online Form Builder**

**Martha E. Hardy**, Library Professional, Reference and Instruction; **Lisa McGuire**, Assistant Librarian, Reference and Instruction; Bio-Medical Library, University of Minnesota–Minneapolis

**Objective:** This poster describes a pilot project in an academic health sciences library in which we use an online

form generated with Wufoo to record data about reference desk transactions. The online form enables us to easily collect the requisite data for reporting to external agencies and additional data to support evidence-based decision-making about library management and services.

**Methods:** Previously, data about reference desk transactions were manually recorded on paper during three, weeklong sample periods, from which annual statistics were extrapolated. We selected Wufoo because it is a low-cost, versatile Internet application that enables people with minimal knowledge of HTML to easily and efficiently create online forms. We created an online form with which library staff record data about all reference desk transactions, including the medium (phone, in-person, instant message), the length of the transaction, question type, and optional notes or comments.

**Results:** Since March, 2007, we have already used the data collected via Wufoo to inform decisions about library services, such as changes to our reference desk hours and staffing. Reconciling the disparate definitions of terms and criteria required by the Association of Research Libraries and Association of Academic Health Sciences Libraries remains a challenge. Also, because the built-in Wufoo reports are not very robust, additional reports must be created in Excel. We still find Wufoo useful enough that we now use it to collect data about instruction sessions, literature searches, and consultations and to create online forms to embed in our website.

**Conclusions:** Wufoo is an easy, powerful, affordable, and flexible tool that libraries can use to easily create online forms to collect data about their activities and services. Because it is not onerous to capture every transaction, we now have more and better data about reference desk activities. We recommend Wufoo to other libraries.

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### **Think Big! Building Connections to Support Interdisciplinary Programs in Academic Institutions: Global Health at the Library**

**Jim Henderson**, Life Sciences Librarian, Life Sciences Library and Osler Library of the History of Medicine; **Deborah Meert**, Liaison Librarian, Life Sciences Library; **Eamon Duffy**, Liaison Librarian, Government Publications Service, Humanities and Social Sciences Library; **Louisa Piatti**, Liaison Librarian, Nahum Gelber Law Library; McGill University, Montreal, QC, Canada

**Objective:** To determine the information needs of students, faculty, and researchers in global health programs and design an interactive program of library support to encourage interdisciplinary collaboration and understanding.

**Background:** Units of the university library received a request for a listing of resources on global health to be distributed to participants in a workshop, "Beyond Borders," held to encourage global health studies. The long-term international perspective of the university has provided numerous opportunities for global health initiatives. Interdisciplinary collaboration was a key tenet of the 2006

document, "Strengths and Aspirations: A White Paper Call to Action Regarding McGill University's Future," written by the provost of the university after extensive consultation.

**Methods:** A group from different library branches (health, law, political science, government publications) was formed to develop a web-based subject guide and workshop presentation. In response to requests to add resources discovered by users of the guide, a wiki was launched that allows all university users and outside users with accounts to add to the guide. A hands-on computer workshop was developed to train users in the diversity of global health sources. Efforts were made to support capacity building for library services in developing countries.

**Results:** The subject guide and presentation were enthusiastically received. The wiki was launched and generated interest for its diverse content and for utilizing Web 2.0 technology. Work on the subject guide and the workshop indicated a lack of bibliographic control and revealed a number of valuable new sources. Interest in the workshop has been enthusiastic, with diverse groups showing interest. Evaluation of the workshops will follow their presentation.

**Conclusions:** Interdisciplinary collaboration in the library has been a positive learning experience for all involved. Global health studies provided the library a vehicle to support the university's mission of interdisciplinary collaboration in the university community. The method used provides a model for supporting other interdisciplinary programs. The presentation, subject guide, wiki, and workshop demonstrated the value of the knowledge of librarians and the ability of the library to support global health studies, an area of growing importance to the university.

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### **Home Field Advantage: Connecting with Users on Their Turf**

**Shannon D. Jones**, Head, Outreach Services; **Catharine S. Canevari, AHIP**, Associate Director, Research and Education; Tompkins-McCaw Library for the Health Sciences, Virginia Commonwealth University—Richmond

**Objective:** Services at the Tompkins-McCaw Library for the Health Sciences have grown to encompass a wide variety of outreach and education initiatives to increase our library's visibility on campus. This poster highlights the variety of outreach activities our library supports in an effort to engage with our affiliated users.

**Methods:** Each year, the number of resources and services our library provides electronically continues to expand. The result of this expansion is that fewer people are visiting our physical location. So how do you meet the information needs of your affiliated users if they are not visiting the library? What do you do to ensure that your users are effectively using library resources? In response to these questions, our library developed a suite of educational and outreach activities to build relationships with

our users on their turf as well as building awareness about library resources, collections, and services. We developed an outreach plan, established goals and objectives, and clarified our target audience. A variety of practical initiatives were created including a liaison program, a scholarly circuit librarian program, theme-based lecture series, special interest groups, a technology fair, and a research day.

**Results:** The library has an outreach plan that enables librarians to plan ahead and budget for outreach expenses. The plan has tied the outreach activities to specific goals and objectives of the library and the university. Many library outreach activities such as National Center for Biotechnology Information training and public health lectures are attended for professional development by faculty, staff, and students. The growth of library outreach has resulted in the creation of a separate outreach services department.

**Conclusions:** The success of library outreach events can be measured in the number of new users reached, number of new activities planned, and recognition the library has gained that enables us to gain recognition and to be sought out as partners by university administrators.

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#### **Weathering the Storm: Preparing for User Connection after Disaster**

**Jie Li, AHIP**, Assistant Director for Collection Management, Biomedical Library, University of South Alabama–Mobile; **Ellen Sayed, AHIP**, Head of Collection Development, Manager, e-Access Services, Distributed e-Library, Weill Cornell Medical College in Qatar, Doha, Qatar; **Judy F. Burnham, AHIP**, Director, Biomedical Library, University of South Alabama–Mobile

**Objective:** Following a disaster, it is imperative that medical libraries provide their users with seamless access to health information resources and services. This poster reports on the process of developing an academic medical library's disaster preparedness plan, outlining actions to be taken in the event of a disaster.

**Setting/Participants:** University of South Alabama is located close to the Gulf of Mexico and is often in the paths of hurricanes. To prepare for future disasters, the University of South Alabama Biomedical Library collected resources on emergency preparedness from government guidelines, emergency preparedness agencies, and institutions experienced with emergency preparedness to prepare its own disaster preparedness plan.

**Program:** After gathering information from resources on the Internet and from a Solinet emergency preparedness workshop, the biomedical library's disaster preparedness plan has been drafted with contents that include a decision-making tree for disaster recovery, the disaster planning process, a bibliography of irreplaceable items, record-keeping forms, library resource lists, accounting information, insurance information, disaster prevention and protection strategies, checklist of pre-disaster actions, disaster recovery services and supplies, emergency services checklist, in-house supply stockpile checklist, and

recovery team members.

**Results:** Preparing for emergencies can reduce fear, anxiety, and losses that accompany emergencies and disasters. With identification of priority areas of the library collection and development of measures to protect the physical collections and electronic resources, the disaster preparedness plan will reduce the risk of damage to collections and lessen the risk of interruption of services.

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#### **The Jefferson Digital Commons: Starting an Institutional Repository at an Academic Health Sciences Library**

**Daniel G. Kipnis**, Senior Education Services Librarian; **Ann Koopman**, JEFFLINE Editor; Academic and Instructional Support and Resources (AISR), Thomas Jefferson University, Philadelphia, PA

**Description:** In 2005, Thomas Jefferson University started an institutional repository (IR) and named it the Jefferson Digital Commons (JDC). Since its creation, the JDC has accepted and archived over 1,400 documents. Our poster will highlight the lessons learned in starting an institutional repository at an academic health sciences library. We will highlight marketing techniques, commons issues that arise with faculty, and advantages for a library. The JDC was established to provide Jeffersonians with both an archive for scholarly output and a university press for original publication of open access (OA) material. The JDC supports scholarly, historical, and administrative publication.

**Methods:** Reviewed materials in the JDC to examine departments, faculty, and number of documents archived in the JDC.

**Results:** In 3 short years, the IR has received over 1,400 documents. Among the materials in the JDC are: rare books, faculty articles, recorded lectures (audio and video), 1 peer-reviewed journal, 4 newsletters, annual reports, teaching videos, dissertations, and clinical documents for patient education.

**Conclusion:** The JDC is considered a success based on the large number and variety of documents deposited during its short life and the use they have received. The JDC is serving as intended, and the library has achieved a higher degree of visibility on campus as the result of partnering with faculty to promote their interests.

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#### **Does Submitting Nontraditional Scholarly Content to an Institutional Repository Provide Academic Value to the Submitters: A Study at the University of New Mexico**

**Holly Phillips, AHIP**, Resource Access and Delivery Coordinator; **Philip Kroth**, Assistant Director of Informatics Program Development; Health Science Library and Informatics Center, University of New Mexico–Albuquerque

**Objective:** To learn if using the University of New Mexico's institutional repository DSpaceUNM to publish non-traditional academic content, such as data sets, posters,

and presentations, have tangible scholarly benefits for investigators.

**Participants:** The study population is all registered users who have submitted scholarly work to the University of New Mexico's institutional repository.

**Setting:** The study will take place at the University of New Mexico, a large academic institution located in Albuquerque, NM.

**Method:** All registered DSpaceUNM users were sent surveys designed to assess perceived qualitative and quantitative benefits of participating in DSpaceUNM and types of content submitted. Institutional review board-approved questionnaires were distributed in fall of 2007.

**Results and Conclusions:**

**Main Results:** Presentations and papers constitute the majority of submitted content; currently there is little use of multimedia formats (i.e., video or audio). The respondents report that using DSpaceUNM has provided a tangible scholarly benefit to their academic career. They also value the easy exposure and sharing of scholarly content with peers and the preservation of scholarly output in one place.

**Conclusion:** Submitters of content to the University of New Mexico's institutional repository feel that posting nontraditional content to DSpaceUNM has been beneficial to their career and has increased their exposure because of the ability to post previously unseen gray literature.

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**Open Journal Systems Bridge the Publication Gap**

**Nancy T. Lombardo**, Systems Librarian; **Allyson Mower**, Institutional Repository Coordinator;

**Jeanne M. Le Ber**, Education Librarian; **Stephen A. Mossbarger**, Web Developer; **Julie Quilter**, Reference Associate; Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City

**Objective:** Describe the use of the Open Journal Systems (OJS) as a publication mechanism for the library's quarterly newsletter and to provide online submission and peer-review management for a digital repository. Details of the system architecture will be explained. An electronic demonstration of the workflow will be provided. Examples of peer-reviewed resources and a sample of the online publication will be displayed.

**Methods:** The Eccles Health Sciences Library at the University of Utah investigated existing tools to facilitate online publishing efforts. Requirements included the ability to submit articles and resources electronically, manage review and copy editing processes, create a customized look and feel, and publish selected resources. The OJS was selected and implemented for two distinct projects in the library. The first application was to produce an online quarterly newsletter, the second was to provide online submission front end and peer review for a digital repository. Customized page content supporting workflow was developed for the two projects. Staff were trained on the system and reviewers were recruited for the projects. Peer review of the digital library materials is underway, and the

first issue of the online newsletter is planned for August of 2008.

**Conclusions:** OJS, developed as part of the Public Knowledge Project by Stanford University and University of British Columbia, is an open source product. Installation and customization require a programmer and a web designer. Some time was taken to gain proficiency with the OJS workflow. This includes learning the vocabulary and roles of journal editors, because the product is designed for professional publishers. The library's OJS team determined that this tool is versatile and effective for publishing a newsletter and providing online submission and peer review. There are currently over 900 electronic journals using OJS to publish. The first electronic issue of the library newsletter is on track to be published in fall of 2008. The Neuro-Ophthalmology Virtual Education Library (NOVEL) will use OJS to receive and review online submissions of lectures, image, video, articles, and other relevant content.

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**Enhancing Podcast Development and Activity**

**Courtney D. Crummett**, NLM Associate Fellow, MIT Engineering and Science Libraries, Massachusetts Institute of Technology–Cambridge; **Robert A. Logan**, Social Science Analyst, Lister Hill National Center for Biomedical Communications, National Library of Medicine, Bethesda, MD

**Objective:** The authors initiated a comprehensive review of health and medical information podcasts to enhance the National Library of Medicine's (NLM's) podcast, The Director's Comments. The review sought to identify podcast tools, programming themes and styles, technological tips, as well as consider pertinent academic and professional literature. Recommendations for podcast enhancements were requested based on the findings; use statistics were sought.

**Methods:** A qualitative review of health and medical podcasts included these areas: information from scholarly and professional publications, blogs and websites, relevant archives and repositories, government agencies and academic institutions; an assessment of podcast health information sites and directories; as well as conference and workshop proceedings. Quantitative use statistics of the podcast's web page were derived from WebTrends.

**Results:** Recommendations included embedding URLs with live links in podcast transcripts, adding music and completing available metadata fields in some podcast distribution services. Public visits to the NLM podcast increased significantly. The report also features: an annotated literature review and list of health-related podcasts, an assessment of production tools, and suggestions about alternative venues for public distribution.

**Conclusion:** The report suggests podcasts are an important mass medium to deliver health and medical news information to the public. The report suggests the quality of content, public accessibility, and length of the NLM podcast are similar to health and medical information podcasts distributed by other organizations. The report

recommends alternative venues to distribute the NLM podcast and provides ideas for new genres of podcasts. The authors provide specific recommendations to further enhance the podcast's quality, most of which were implemented in fall 2007.

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### **Web 2.0 and Information Literacy: The Importance of Critical Thinking in Public Health**

**Laura Cobus**, Head Librarian, Health Professions Library, Hunter College, New York, NY

**Objective:** A librarian developed and delivered a three-credit graduate course in public health. The course provided the opportunity for students to pursue the theoretical and practical principles of information research in public health. The course examined the nature, production, and uses of information including Web 2.0 technologies and its impact on the public's health.

**Methods:** Blogs and wikis are examples of Web 2.0 technology that facilitate collaboration and participation in the online world. In the health sciences, the emergence of these interactive and social tools potentially increases the risk of generating harmful or biased information. It is the health professional's responsibility to have the skills to critically appraise web content that has not undergone traditional peer review, as well as to understand the various types of information consumers use to make health decisions. To address these issues and to enhance and assess student learning, students were required to use a course blog as mode of course communication, create weekly individual blogs describing a current event in public health, and to create a public health wiki all within the course management tool, Blackboard. Grading rubrics were developed and used to evaluate the individual and group assignments.

**Results:** The participative component of the blogging and wiki created an online community where students were able to continually reflect on their research and technological skills as individuals and as a group. In addition, the assignment fostered a student community, and comprehension of the issues surrounding Web 2.0 as it relates to public health.

**Conclusion:** Instructing graduate students about the traditional and authoritative information retrieval tools along with the non-peer-reviewed tools made for an interesting and exciting course. The librarian is working with faculty from the school of public health to ensure that this elective is incorporated into the overall curriculum for future semesters. In sum, this course has provided the librarian and students with a rich understanding of the complex issues related to public health information literacy and the world of Web 2.0.

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### **Gangplank or Bridge: Providing New Librarians Pathways to Success**

**Rick Wallace**, AHIP, Assistant Director; **Nakia J. Carter**, AHIP, Clinical Reference Librarian; Quillen College of Medicine Library, East Tennessee State University—Johnson City

**Objective:** To describe the process of mentoring a new medical librarian from the perspective of both the mentor and the mentee.

**Methods:** This program is a descriptive qualitative analysis detailing techniques used in the mentoring process. Techniques used by the mentor in the mentoring process were creating a library journal club and library grand rounds for mentee; creating opportunities for leadership in professional groups for mentee and opportunities for presentation at professional conferences for mentee, providing opportunities for skill development for mentee by exposure to the Family Physicians Inquiry Network (FPIN) librarian process and clinical library responsibilities, and providing a highly personalistic and humanistic approach to developing the mentee by having an open door policy and engaging in frequent reflection with the mentee.

**Results:** Mentoring is a rewarding experience for both mentor and mentee. In this case study, the mentee's career was enhanced by being published, leading professional library groups, developing expert searching skills, and greatly accelerating access to new knowledge within the first year of the mentee's professional career.

**Conclusion:** The mentoring process is a necessity for the development of next generation librarians. Successful mentoring involves a high level of commitment by both the mentor and the mentee, therefore perhaps institutionalized mentoring programs do not often succeed because they lack this depth.

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### **Using a Case-based Approach to Illustrate the Process of Addressing Complex Information Challenges in the Health Sciences**

**Rebecca Jerome**, Assistant Director; **Rachel Walden**, Librarian; **Taneyia Koonce**, Assistant Director; **Nila Sathe**, Associate Director for Research; **Nunzia Giuse**, AHIP, FMLA, Director; Eskind Biomedical Library, Vanderbilt University Medical Center, Nashville, TN

**Objective:** To provide a forum for addressing issues in medical information provision, the editorial team of the JMLA launched a quarterly case study feature focusing on complex information challenges facing the profession. This initiative employs the case-based approach that serves as a key component of medical education.

**Brief Description:** This regular case feature serves as one component of the editorial team's emphasis on enhancing the research focus of the journal. The case studies explore challenges related to searching, critical appraisal, and synthesis of biomedical information in the context of complex questions in the health sciences. Author teams are drawn from librarianship, informatics, clinical medicine, and the basic sciences. Each case begins with a consideration of the context of the question, including strategies for developing deeper understanding of medical and research concepts framing the issue at hand. The cases are also complemented by a blog, which considers case issues in additional detail and allows readers to post comments and questions in the spirit of further inquiry.

**Results/Outcome:** Discussing a range of topics from clinical practice and the basic sciences, the case studies provide in-depth examples of real-world information challenges in the health sciences. Each case yields opportunities for librarians to hone their skills in searching and filtering the literature, as well as to further develop their knowledge of clinical topics and research designs. Preliminary feedback from readers indicates that the cases provide a vehicle for professional development for librarians and other trainees in a variety of settings. *Journal of the Medical Library Association Case Studies* blog statistics also point to its utility, showing that it has been accessed over 12,000 times since its inception in late 2006.

**Conclusions:** While offering a valuable professional development outlet for health sciences librarians, the cases also emphasize the potential impact of a librarian's expert assistance in a variety of settings.

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### **The BIG: A Collaborative Librarian Group**

**Jean Song**, Informationist; **Marci Brandenburg**, Reference Associate; **Marisa Conte**, NLM Fellow; **Merle Rosenzweig**, InfoPoint and Liaison Librarian; Health Sciences Libraries, University of Michigan–Ann Arbor  
**Objective:** To demonstrate how health sciences libraries can increase the quality and breadth of research support for the basic sciences and informatics by creating a bioinformatics interest group (BIG) for cross-disciplinary efforts in the life sciences

**Methods:** To manage the exponential growth of molecular and genetic information in the biomedical, clinical and public health disciplines, and expand partnerships with scientists and systems developers, a bioinformatics-led BIG was created collaboratively with two other campus libraries. The BIG bridges the multi-disciplinary nature of current health sciences research by tapping into its librarian members' expert knowledge in the subjects of biology, human genetics, engineering, and computer science and by targeting services and resources for researchers in the interdisciplinary Life Sciences Institute and participants in the university's Clinical and Translational Science Award. This group worked collaboratively with scientists and developers to expand awareness and use of bioinformatics tools and resources.

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### **Connecting the Dots: An Analysis of Search Strategy Reporting in Meta-analyses**

**Shari Clifton**, AHIP, Head, Reference and Instructional Services; **Betsy Tonn**, Reference Librarian; **Michael Coffman**, Graduate Assistant/Reference; **Wyatt Ditzler**, Graduate Assistant/Reference; **Mark Hopkins**, Graduate Assistant/Reference; **Jeffrey Richards**, Graduate Assistant/Reference; Robert M. Bird Health Sciences Library, University of Oklahoma Health Sciences Center–Oklahoma City

**Objective:** To determine how frequently sufficient search strategy information is provided in recently published meta-analyses.

**Background:** With the trend toward evidence-based practice in today's health care environment an emerging role for health sciences librarians is collaboration with researchers performing systematic reviews and meta-analyses. Published reporting guidelines recommend that authors include a complete search strategy so that the meta-analyses can be updated. Despite this there are still many published meta-analyses that do not follow these guidelines.

**Methods:** Independent reviewers analyzed a random sample of meta-analyses published in 2006 and indexed in MEDLINE. Documentation of search strategies from meta-analyses was compared with several criteria from the Cochrane Handbook and the MOOSE Guidelines.

**Results:** Preliminary findings noted significant variability in the reporting of search strategies with a large portion insufficiently documenting these strategies.

**Conclusions:** The implications of the data suggest a lack of emphasis to include a complete search strategy by authors. Librarians should use their unique knowledge and experience to ensure that reporting of search strategies in meta-analyses is improved.

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### **The Desk Set Fifty Years Later**

**Susan Fowler**, Library Associate, St. Louis Children's Hospital Medical Library; **Misty Carney**, Librarian, Bernard Becker Medical Library, School of Medicine; Washington University, St. Louis, MO

**Objective:** In the 1957 film, *Desk Set*, Katherine Hepburn plays a reference librarian and Spencer Tracy is an efficiency expert charged with installing a computer to do Hepburn's job. The objective of this paper is to discuss how computers have changed the medical library, end users, and the profession of librarianship in the past fifty years.

**Methods:** Over the past fifty years, what has been the impact of computers, the Internet, and digital libraries on the library profession? How has the medical library as place and medical information changed? How have end users changed? A review of literature and media covering the role of computers in librarianship and medical information will be conducted. Topics will include the history of computers in libraries, how the development of Internet with graphical interfaces has been used in libraries, digital library exhibitions, the medical publishing industry, implications of open access, and alternatives to the limitations of copyright. The paper will discuss the first digital library envisioned by H. G. Wells in 1938, the implications of computers in libraries made in the 1957 film, *Desk Set*, present-day reality, and projections for the future.

**1**  
**Spanning Gaps in Information Services and Resources to Medical Residents**

**Rick Wallace, AHIP**, Assistant Director, Quillen College of Medicine Library, East Tennessee State University–Johnson City

**Objective:** To determine if the library resources being utilized most frequently by medical residents correlate to the cost of the resource and the clinical value of the resource. To determine the quality of medical library services provided to residents.

**Methods:** A survey analysis was conducted of 217 medical residents from the 2005/06 East Tennessee State University Quillen College of Medicine class in surgery, family medicine, internal medicine, obstetrics/gynecology, psychiatry, pediatrics, and pathology with a return rate of 48.4%. Quantitative analysis was performed with the SPSS (v. 14.0 for Windows) software program. The results were expressed in percents in graphical or tabular form. The data were analyzed using descriptive statistics (frequencies, mean, median, and mode), and inferential statistics (Mann-Whitney U test and chi-square test.)

**Results:** The most frequently used resources by residents were Google, PubMed, UpToDate, and free web resources. The resources that were rated with the highest clinical value and rated by at least 25% of the respondents were online journals, InfoRetriever, MDConsult, and the Cochrane databases. When clinical value, frequency of use, and cost were combined, the highest ranking resources were Google, free web resources, PubMed, and UpToDate.

**Conclusions:** As suspected, medical residents heavily use the web for information. Although online journals are expensive, residents highly rate their clinical value. Medical librarians need to frequently measure the resource use patterns of their different patron groups to plan for training and to make wise purchase decisions.

**3**  
**Weed It and They Will Come: The Nitty Gritty of Assessing, Weeding, and Rebuilding a Physical Book Collection**

**Adriana Yoshii, AHIP**, Information Services Librarian;  
**Kathleen Moeller, AHIP, FMLA**, Assistant Director;  
**I. Marina Salcedo**, Information Services Librarian;  
Health Science Center Libraries/Borland Library,  
University of Florida–Jacksonville

**Context:** The Borland Health Sciences Library is a branch library of the University of Florida Health Science Center Libraries. Remotely housed in a teaching hospital, the library has no archival function and its primary focus is clinical. In preparation of a library-wide renovation, assessment of the book collection was fundamental to the early renovation project phase.

**Objective:** To assess the library's circulating book collec-

tion and determine whether it meets the clinical information needs of its users. To weed accordingly and build a collection that includes both print and electronic titles.

**Methods:** A physical inventory of the entire book collection was done by call number and publication year with a special category of pre-1985 publication items. Data was entered into Excel for further analysis. Weeding was done by the following criteria: (1) discard low circulation statistics titles; (2) keep no more than the latest two editions; (3) weed pre-1985 items, unless of significant value; and (4) eliminate items outside of core collection scope. Weeded books were set aside for a book sale. Standard selection lists were used to update the collection. Book dummies for e-titles were intermixed into the collection.

**Results:**

- Before weeding (Feb 2007): # of total collection: 6,090; # of pre-1985: 745; # of pre-1995: 2011
- After weeding (Feb 2008): # of total collection: 4,367; # of pre-1985: 59; # of pre-1995: 206
- weeding of 2,319 items
- acquisition of 596 new items
- The updated collection improved the ability of the library to meet its users' current needs
- The book sale served as an incentive/venue to draw in a greater number of users to the library

**Conclusions:** Periodic assessment of a book collection is essential. In a clinical library setting, an up-to-date book collection is imperative for meeting its users' unique information needs. A book sale of weeded books serves as a marketing venue to draw in users to the library and increase its visibility.

**5**  
**The Development of the Medical Library Consortia in Taiwan**

**Tzu-heng Chiu**, Associate Director, University Library, Taipei Medical University, Taipei, Taiwan; **Huei-chu Chang**, Associate Professor, Graduate Institute of Library and Information Science, National Chung Hsing University, Taichung, Taiwan; **Josephine Yu-Tzuon Chuo**, Chairperson, Medical Library Committee, Library Association of the Republic of China (Taiwan), Taipei, Taiwan; **Yu-Hsiang Hu**, Deputy-Director, Medical Library, Taipei Veterans General Hospital, Taipei, Taiwan; **Peng Kao**, Head, Medical Library, National Taiwan University, Taipei, Taiwan

**Objective:** In recent years, medical libraries in Taiwan are facing challenges of budget reducing but cost increasing. Also, the development and widespread use of e-journals have facilitated hospital libraries to build up digital library consortia. The Medical Library Committee, Library Association of the Republic of China [Taiwan] (LARMLC), provides comprehensive services to medical libraries. According to the nature of each medical library consortia, LARMLC assists on presenting and promoting consortia, disseminating their missions and visions to libraries, and encouraging libraries to join consortia that

would meet their needs. This article introduces the history, resources, and current situation of the largest medical library consortia in Taiwan, compares their differences, and then describes the role and potential functions of the LARMLC. At the end, the authors propose suggestions for future development.

**Methods:**

1. review related literatures, websites, and internal documents of famous medical library consortia in the United States and Canada.
2. survey the history, resources, and current situation of the largest medical library consortia in Taiwan.
3. suggest the role and functions of the LARMLC.

**Results:** Demonstrate the status of famous medical library consortia in the United States and Canada and then focus on the development of medical library consortia in Taiwan, by introducing and comparing the start up, electronic resources, and current status of the largest medical library consortia in Taiwan.

**Conclusions:** Propose five suggestions based on the author's working experiences to serve as references for future directions of medical library consortia in Taiwan.

**7**

**Point-of-Care Resource Evaluation: Connecting the Library with User Needs**

**Karen Stanley Grigg**, Assistant Director of Collection Services; **Richard A. Peterson, AHIP**, Deputy Director; **Connie Schardt, AHIP**, Associate Director of Public Services; **Patricia L. Thibodeau, AHIP, FMLA**, Associate Dean for Library Services; Medical Center Library, Duke University Medical Center, Durham, NC

**Objective:** The objective is to use a systematic approach to evaluate available point-of-care (POC) products to determine which one is preferred by the faculty, staff, and students served by our library and to identify a second choice in the event of price increases and inadequate funding.

**Methods:** The library conducted an environmental scan of peer institutions to determine what POC products were provided for users and identified other products in the market. The library's POC task force developed evaluation criteria, established trial accounts, and internally reviewed each product. As a result of this review, several products were eliminated from further consideration, leaving four products for further analysis. The library recruited about thirty volunteers—consisting of faculty, clinicians, nurses, and students—to test the four remaining products. An online evaluation questionnaire was developed based on criteria previously established. The volunteers were asked to use structured clinical questions to test each database. Links to the questionnaires, the POC trial sites, and sample clinical questions were distributed to the volunteers. The POC task force then compiled and analyzed the evaluation data.

**Results:** The results of this study clearly identified the preferred POC product and an acceptable second choice. Based on a scale of 1–10, with 1 being the lowest and 10 the highest, the overall rating score was 8.94 for the most

preferred product, 6.75 for the second choice, 5.64 for the third choice, and 4.35 for the least desired. The respondents' ranking of the 4 products in terms of content and coverage, evidence-based information, applicability to the clinical setting, and usability was consistently the same across all categories. Due to the importance of POC products to our users and the rapid changes we are seeing in improvements of these products, the library plans to continue periodically reviewing available POC products in the future to ensure we are best meeting our users' needs.

**9**

**Presenting the University of California-San Francisco Japanese Woodblock Print Collection on the Web**

**Lisa A. Mix**, Manager, Archives and Special Collections; **Leslie Kleinberg**, Coordinator, Web and Print Publications; **Julia Kochi**, Director, Digital Library and Collections; Library and Center for Knowledge Management, University of California–San Francisco

**Objective:** The University of California-San Francisco (UCSF) Library holds a collection of 400 Japanese woodblock prints related to health and medicine, ranging in date from the 17th through the early 20th century. We sought to expose this largely hidden collection to a wider audience by creating digital images of the prints and making them available to users on the web.

**Methods:** The UCSF Library holds the most extensive collection of Japanese woodblock prints on the subject of health and medicine in the United States. The collection has interested scholars of Asian medicine, the history of medicine, and Asian art, as well as current health care practitioners. With funding from the California Digital Library (CDL), the archives and special collections unit conducted a project to produce digital images of each print in the collection and make them available on the web. The poster will show the steps in the digitization project and the development of the website, presenting challenges, successes, and lessons learned. It will touch on the subject strengths of the collection—such as contagious disease, women's health, drugs and materia medica, the Dutch in Japan—with images of representative prints.

**11**

**OSTMED.DR: Building a Bridge from Citation to Full Text**

**Elaine G. Powers**, Director of Library Services, VCOM Library, Edward Via Virginia College of Osteopathic Medicine—Blacksburg

**Objective:** This poster introduces a new osteopathic medicine digital database created to make osteopathic literature and resources available electronically and in full text.

**Methods:** OSTMED.DR is being developed by a partnership between Edward Via Virginia College of Osteopathic Medicine (VCOM) and VTLS, a library systems company located in Blacksburg, Virginia. OSTMED.DR is endorsed by the American Osteopathic Association (AOA) and the

American Association of Colleges of Osteopathic Medicine (AACOM) and funded by VCOM. It was created using VTLS's digital repository solution, VITAL. OSTMED.DR builds on OSTMED, a bibliographic index to the literature of osteopathic medicine, which was also sponsored by AOA and AACOM and developed by the Gibson D. Lewis Health Science Library (University of North Texas Health Science Center-Fort Worth) and the A. T. Still Memorial Library (Kirksville College of Osteopathic Medicine). While OSTMED is basically a citation index, OSTMED.DR provides access to all ingested content in the repository, as well as being full-text indexed and searchable. Both core journals and selective journals and books are included. Phase II (2008) will be the addition of a quarterly online research journal for the profession.

**Conclusions:** The goal of the project is to promote and facilitate research and scholarly activity in the osteopathic profession by providing ready access to the current osteopathic literature as well as heretofore hard-to-find resources, including historical documents.

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#### **Incorporating Library Instruction and Resources into the University's Writing Program for Undergraduates**

**Anne Linton, AHIP**, Director; **Alexandra Gomes, AHIP**, Associate Director; Himmelfarb Health Sciences Library, The George Washington University, Washington, DC

**Objective:** The library serves an academic health center with a primarily graduate-level component on-campus and a growing undergraduate component off-campus. The library's instructional staff has worked to meet the information needs of these distance education students through faculty education and the promotion of off-campus access options. Health sciences distance education programs were recently brought under the university's mandatory writing program for undergraduates, and the library was asked to create a module and assignments for the program with a one-month deadline!

**Methods:** Working quickly, librarians reviewed what topics were essential to success and created a list that included health sciences and traditional undergraduate resources online, steps in the online research process, and guides to evaluating resources. Once content areas were identified, librarians reviewed materials already in use for on-campus orientations and for online curricula in informatics and evidence-based medicine and adapted these resources to an online, undergraduate audience. An assignment on the topic of health policy and childhood obesity was created. Materials were loaded as session 3 of the course, "Writing in the Health Sciences." Plans called for all responses to be posted in the course's online discussion area with instructor feedback from librarians, and student peer review.

**Conclusions:** The assignment to identify materials in support of a health policy paper on overweight adolescents involved web and database searching, identification of local/community resources, and data analysis. All results

were posted on the web, where both librarians and students provided feedback. Looking at the depth and range of student responses, the module was a success. All students had clearly read the materials and fully completed the assignment. They provided each other with free-wheeling commentary on the ease of the research process. Students demonstrated a greater facility at searching the web for government programs than in locating peer-reviewed materials. Several students indicated that the module had introduced them to new and powerful research tools and information sources. Faculty in other courses heard about and requested that the module be loaded into their introductory courses. Plans to review, revamp, and package the module as a formal online tutorial are near completion.

### 15

#### **Teaching First-year Medical Students Where to Go First: Connecting Information Needs to E-resources**

**Elizabeth Whipple**, Research Informationist; **Margaret (Peggy) Richwine**, Director of Outreach; **Frances Brahmi, AHIP**, Director of Undergraduate Education; Ruth Lilly Medical Library, Indiana University—Indianapolis

**Objective:** To introduce first-year medical students to e-resources that are best for different types of background questions. The goal is to go from a specific question, generalize it into a "type" of question, and then identify the best e-resources for that type of question. This is their first introduction to the lifelong learning competency in the school competency-based curriculum.

**Methods:** First- and second-year medical students in the Indiana University School of Medicine are located at nine campuses across the state with varying methods of instruction. First-year medical students need a baseline understanding of the resources available and which resources are best for certain types of questions. At our training session, they were presented with a case study with specific questions to answer, utilizing e-resources that we presented to them earlier in the session. The case study and questions had been used previously to demonstrate searching features of the various resources. Our educational emphasis was on the process of identifying the types of background information, not the specific answer to a question. Drug information, lab test normal values, calculators, physical exams, and differential diagnoses constitute types of background information. We also discussed Google's advantages and drawbacks for finding information.

**Conclusions:** The different kinds of information needed and which e-resources to use are more important than the intricacies of the searching mechanism. As digital natives, finding information electronically is second nature to the students. Our training session focused on identifying broad categories of information and the corresponding e-resource to enhance the efficiency and relevancy of their search. An online annotated list of the e-resources introduced at the campuses was made available on the library's website. Traffic to the library website continues

months after visiting the campuses. Plans are being developed to collect information on the value of the training sessions. The poster will have a graphic representation showing connections between specific questions, more generalized types of questions, and the best resources for those types of questions.

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### **Developing an RSS Current Awareness Service**

**Allan R. Barclay, AHIP**, Information Architecture Librarian; **Rebecca J. Holz**, Information Architecture Librarian; **Christopher Hooper-Lane, AHIP**, Instructional Services Coordinator; **Stephen M. Johnson**, Health Sciences Librarian; **Andrew Osmond**, Electronic Resources and Cataloging Coordinator; **Erika Severson**, Health Sciences Librarian; Ebling Library for the Health Sciences, University of Wisconsin–Madison

**Objective:** To create an RSS current awareness service. Delivery and promotion of the service to include web-based and in-person components.

**Methods/Description:** Increasingly, journal vendors are making content available via RSS feeds, but barriers still exist between the user and the content. Inspired by the FeedNavigator, a project of the National Library of Health Sciences–Terko, we set out to develop a tool that would allow our patrons to easily locate and subscribe to journal feeds. Using a blog and a wiki for staff communication and project management respectively, we created tools that allowed the 6 members of our group to quickly capture and classify feeds for over 1,900 journals. Journal feeds are now available from our site, individually and in bundled, exportable packages (OPML files). Users can locate feeds alphabetically or by subject and can preview tables of contents before subscribing to a feed. Comprehensive bundles of feeds are offered along with select bundles of “best bets” titles.

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### **Ebling Library’s Role in the Development, Launch, and Growth of the Innovations in a Medical Education Video Library and Digital Portal**

**Ann M. Combs**, Reference and Research Coordinator; **Andrew J. Osmond**, Electronic Resources and Cataloging Coordinator; **Allan R. Barclay, AHIP**, Information Architect; Ebling Library for the Health Sciences, University of Wisconsin–Madison

**Objective:** To collaborate with IT staff, clinicians, educators and administrators from our institution to design, launch, and maintain a grant-funded digital video library complete with valued added, library-based information. **Methods:** The group met weekly over a period of twenty months (and continues to meet) to design and develop the site, gather and analyze user input, and collectively decide on video library features, critical staff workflow, and ongoing improvements. Decisions are implemented, results evaluated, and changes made accordingly. Examples of changes:

- Cataloging categories were changed from Medical Subject Headings to a more flexible issue-focused system of terms drawing from categories developed previously by members of the Committee for Institutional Cooperation HealthWeb team.

- Patron convenience trumped the need to know unique users resulting in the abandonment of free user accounts and log-ins.

- Seeding popular sites, such as Wikipedia and YouTube, with links back to the video library

**Conclusions:** The Innovations in Medical Education Video Library continues to grow and experience heavy use. The value added by librarians is critical to setting this digital library apart from other commonly seen groupings of videos that lack searchability, relevant links, permalinks, stored searches, and access to librarian research help.

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### **Assessing the Impact of National Library of Medicine-funded Grant Initiatives on the University’s “Information Workspace”**

**Laura P. Barrett, AHIP**, IAIMS Coordinator, Informatics Institute, University of Medicine and Dentistry of New Jersey–Newark; **Jeanette de Richemond**, Medical Information Specialist, ECRI Institute Headquarters, ECRI Institute, Plymouth Meeting, PA; **Cecilia S. Gal**, Program Coordinator; **Paul B. Kantor**, Professor; **Catherine L. Smith**,

Lecturer; School of Communication, Information and Library Studies, Rutgers University, New Brunswick, NJ  
**Objective:** To evaluate the impact of National Library of Medicine-funded grant initiatives on the information workspace (IW) of the university. The IW was defined for the purposes of the study as the complex facilitative and collaborative electronic environment including computers, networks, access to specific university resources, databases, licensed electronic full-text resources, patient records, the Internet, and innovative teaching tools intended to affect every aspect of operations.

**Methods:** Qualitative methods (focus groups, telephone interviews) identified salient aspects of the IW for individuals with specified roles (clinical, teaching, research, student, administrator) and commonalities in impacts. This informed an online survey with 21 questions common to all roles, and 6 to 8 questions for each specific role. Open-ended (text box) questions sought overall positive and negative experiences with the IW and positive experiences associated with each role. Quantitative results were analyzed using SPSS. Over 2,000 textual responses were analyzed to develop a coding scheme classifying types of impact, as reported by the users.

**Results:** Strong positive impacts were measured. Sixty-one percent of respondents report that the IW of late has either decreased the amount of effort required to accomplish work goals, the same amount of effort has resulted in improved work quality, or both. Only 11.2% of the respondents report that work quality has decreased or the effort to secure the same results has increased. Additional results will be reported.

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### **Bridging the Gaps in Access: Merging Two Library Catalogs into One**

**Robin Sewell**, Head, Systems; **Mary Holcomb**, Head, Collection Services; **Joan B. Schlimgen**, Assistant Director of Resources; Arizona Health Sciences Library, University of Arizona–Tucson

**Objective:** This poster focuses on the collaboration between an academic health sciences library and the main university library in creating a consolidated catalog of all print and electronic holdings for the entire university campus.

**Methods:** Project Description: In 1994, the university libraries consolidated their holdings into one integrated library system (ILS) choosing the Innovative Innopac system (III); at the same time the health sciences library made the decision to operate a separate catalog using the Sirsi Unicorn system. The current collaborative venture grew out of the health sciences library facing reduced IT support for hosting their catalog onsite along with recognition of the growing need to have a single point of access for all library resources available to the campus. The project required a number of steps: the extraction of catalog records from the Unicorn system, reconciliation of MARC fields and cataloging protocols, and creation of a shared patron database as well as the development of searchable subsets of the catalog based on user needs. Members of each library—representing expertise in systems, cataloging, circulation, serials, acquisitions, and information services—met regularly to accomplish each milestone of the timeline.

**Conclusions:** Faced with a \$21,000 estimate for the crucial extraction of records from Sirsi, the systems librarian devised an in-house process using Sirsi's MARC Export tool followed by multiple revisions of extracted data using MARC Edit and Perl programming. Numerous test loads were required to both identify and solve problems in data compatibility. No acquisitions or serial control records could be moved and accommodating circulation needs presented a significant challenge because of the difficulty in identifying and flagging health sciences affiliates using university data. The library lost some specificity in terms of location and circulation periods, historical acquisitions and serial control data, and autonomy in system administration but gained access to both a fully functional integrated catalog as well as to several searchable subsets (scopes). The most striking element for success in migrating to the shared ILS was interlibrary willingness to consider new methods and to compromise as needed.

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### **Virtual Reference: Chat With Us!**

**Mariana Lapidus**, Librarian, Library and Learning Resources, Massachusetts College of Pharmacy and Health Sciences–Boston; **Irena Dryankova-Bond**, Librarian, Library and Learning Resources, Massachusetts College of Pharmacy and Health Sciences–Worcester

**Objective:** The objective of this study is to introduce the implementation, use, and development of a virtual reference service at the college of pharmacy and health sciences and its three-campus libraries. The service utilizes the LivePerson software: a multi-channel communications platform that integrates live chat, email management, and click-to-talk solutions to provide live support to remote users.

**Methods:** The virtual reference service was first implemented at the college of pharmacy and health sciences in 2005. Reasons for offering the service, the software interface and main features, target audience, and types of questions answered are outlined. Statistical data is assessed and evaluated with the help of chat transcripts. Based on almost three-years-long experience in communicating with end users through the library live chat, a wide variety of issues and challenges related to providing online reference services are discussed, and practical recommendations are made.

**Conclusions:** LivePerson software represents an effective inexpensive system, especially useful when the reference desk is not staffed (after-hours, etc.). Students and faculty prefer this service over email due to instant response. This virtual reference system is useful for short straightforward inquiries and less useful for complicated reference questions. Statistics reflects that the busiest periods when the virtual reference was used was the beginning of fall and spring semesters. Better collaboration in staffing and scheduling is needed to guarantee more effective service. Keeping statistics by user is necessary to better analyze usage on each campus.

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### **If We Build It, Will They Use It? Surveying Users to Improve Cross-cultural Health Care Information Services and Digital Library Design**

**Anne G. Turner**, Director, Northwest Resource Center on Culturally & Linguistically Appropriate Services and Health Disparities, The Cross Cultural Health Care Program, Seattle, WA; **Jennie A. Abrahamson**, NLM Fellow, Department of Medical Informatics and Clinical Epidemiology, Oregon Health & Science University–Portland

**Objective:** The Northwest Resource Center (NWRC) of the Cross Cultural Health Care Program is a special library that provides information services to health care providers and other patient care advocates on topics surrounding health disparities, interpretation and language access, and cultural competence to support patient care. The NWRC is in the process of developing a digital library with both free and fee-for-service offerings to help support library activities. To survey general user needs and facilitate digital library development, we asked the following questions:

1. What resources do users most commonly turn to?
2. What are users' most pressing information and service needs?
3. What information resources and services can the NWRC develop that will help meet these needs?

**Methods:** Web-based, email survey of known partners and users from governmental, health care, social services, academic, and community-based organizations. The survey included both closed, Likert scale-based questions and open-ended questions. The survey ran for 15 days in the fall of 2007 and produced 248 responses.

**Results:** Preliminary results indicate that websites and search engines were the most frequently used information sources. However, over 71% of respondents reported seeking information via conversations with colleagues or others, and 58% reported turning to gray literature. A majority of respondents "strongly agreed" that they need regional and federal updates and program information on culturally and linguistically appropriate services topics. The majority of respondents also indicated that organizational program assessments, training, and specialized research services would be "extremely helpful" for their organizations.

**Conclusions:** This survey indicates a strong need for specific types of information services among NWRC users. Some of these needs offer revenue opportunities in the form of program assessments, training, and custom library services. The NWRC will continue to analyze survey results and report on lessons learned and future initiatives proposed at MLA '08.

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#### **An Exploratory Study of Patient Online Search Behavior**

**Jason Howell**, Fellow; **Andrea J. Melnikas**, Fellow, Clinical Research; **Qian Gao**, Fellow, Biostatistics; **Shing Lai Cheng**, Research Coordinator, Clinical Research; **Stan Kachnowski**, Chair, Research Department; Healthcare Innovation and Technology Laboratory, New York, NY

**Objective:** There is a significant need to clearly understand patient online health search behavior, but prior research is sparse. The largest to-date, this study analyzes how the public searches for disease-based health information. Our key objective is to understand user navigation and evaluation methods and how education and income levels, searching experience, and condition obscurity influence those searches.

**Methods:** Thirty participants were recruited from greater New York City for an individual session. Each participant received one of two disease-based case studies (one well-known, one obscure) and was asked to search online for specific information about the disease. Website access was not restricted or directed by the study staff. Search behaviors were recorded using software that captured screen images, websites visited, and keywords searched. A post-search questionnaire was completed to analyze aspects of participant background and thought process. The recordings and questionnaire were reviewed and the data was coded for analysis. We anticipated that search behaviors would differ based on disease type and education and income level. We speculated that sites visited, time spent on sites, and the interest in academic articles and clinical trials would illuminate these differences. We also sought

to investigate the cognitive process behind health information searches.

**Results:** ovided interesting insights into common search practices. The top sites utilized were: National Institutes of Health (NIH)-sponsored sites (70%), Wikipedia (53%), WebMD (36%), and MayoClinic (33%). Google was the most utilized search engine (73%). When assessing credibility, quality, and trustworthiness, participants primarily looked for the source or reputation of the sponsoring organization, useful content, ease of use, and the professional look of the site. We compared participants by education and income levels and were surprised to find no significant differences in the average number of pages visited or first page accessed. Subjects with a graduate degree or higher (n=9) did not differ from those with lower education (n=21) on total pages browsed ( $P=0.6$ ), time spent on first non-search engine ( $P=0.4$ ) or number of discrete pages in a preferred website ( $P=0.9$ ). The lack of significance may be due to limited sample size. This study serves as model for a larger project that will further examine education and income levels in online health search behavior.

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#### **From Tox Town's Neighborhoods to a Virtual World: Representing Environmental Health Concerns in Second Life**

**Cynthia B. Love**, Technical Information Specialist; **Victor H. Cid**, Senior Computer Scientist; **Laura Bartlett**, Technical Information Specialist; **Judy Kramer**, Contractor, LMIT, Specialized Information Services Division; National Library of Medicine, Bethesda, MD

**Objective:** The Tox Town website uses Flash-based graphics, animation, and sounds to represent imaginary neighborhoods illustrating information on everyday environmental health concerns, toxic chemicals, and hazardous substances for students and the public. The objective of this project is to explore the possibilities of representing the same information content in the virtual world Second Life.

**Methods:** Second Life is growing in popularity as a virtual "place" for educational resources and activities such as simulations, games, multimedia information dissemination, and real-time lectures and conferences. Because Tox Town already has graphic features similar to what can be represented in Second Life, it was selected for this experiment in translating web-based content into virtual-world-based content. This project explores the opportunities and challenges in creating Tox Town in Second Life, including experimenting with new types of user experiences and interactive features that might be available. The project also considers issues of privacy, security, data integrity, collection of user statistics, accessibility, and other policy concerns as they may apply in Second Life.

**Results:** The National Library of Medicine (NLM) purchased an island in Second Life and contracted with a web graphic design studio to create a community for avatars to explore. This proof-of-concept experiment

demonstrates that it is possible to adapt and recreate a web-based, flat, two-dimensional graphic resource in a three-dimensional virtual world. Each has its challenges and advantages in graphic representation of environmental health content but adjustments can be made to allow access to the same quality information through either approach. NLM is among the first federal agencies to develop a presence in Second Life. Through the Federal Consortium for Virtual Worlds, NLM is working with other agencies to review the policy issues and usefulness of providing information in Second Life.

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#### **Habits for Lifelong Learning: Core Competencies in Hospital Medicine for Physician Assistants**

**Anne Fladger, AHIP**, Director, Medical Library; **Sylvia McKean**, Director, Hospitalist Service; **Deborah Yolin-Raley**, Head Physician Assistant; Brigham & Women's Hospital, Boston, MA

**Objective:** Our educational strategy has been to develop a monthly physician assistants (PAs) educational series, provide opportunity for physician assistants to receive continuing medical education (CME) credits easily on-site, measure educational outcomes, and ultimately to improve patient care.

**Methods:** Funding for this initiative came from a hospital SEED grant award, a health information/technology award from the institution as well as funding from the chief of medicine's office. A needs assessment was based on review of the literature, surveys of the target audience, physician assistant focus groups, and expert consensus of physician assistant chiefs. The goals and objectives were written to match real world job performance and to meet identified needs. Physician assistants identified problematic cases that formed the basis for discussion. All teaching sessions begin with a case presentation by a physician assistant followed by breakout sessions in small groups at portable computers. Hospitalists and a librarian worked with the physician presenter to facilitate discussion regarding how to write learning objectives, frame clinical questions, and then use information technology resources including PubMed, clinical guidelines, and other electronic sources available through the hospital network.

**Conclusions:** Developing habits for lifelong learning are important ideals for professionals, and a multidisciplinary PA grand rounds program, which is a departure from passive didactic lectures, is one way to effectively address these goals. In addition to evaluation forms circulated at the conclusion of each session, we are evaluating the impact of our curriculum by using an adapted Fresno Test of competence in evidence-based medicine and a job satisfaction questionnaire. Key questions remain whether an innovative, PA-centric, competency-based educational program can change clinical outcomes and improve PA job satisfaction.

### 35

#### **Interdisciplinary Clinical Team Experience: Bridging the Education Gap**

**Joan M. Stoddart, AHIP**, Interim Director; **Nancy T. Lombardo**, Systems Librarian, Spencer S. Eccles Health Sciences Library; **Wendy Hughes**, Clinical Skills Coordinator, School of Medicine; University of Utah–Salt Lake City

**Objective:** The purpose of this poster is to describe a clinical interdisciplinary team experience created for students in the school of medicine, college of nursing, college of pharmacy, and college of health.

**Method:** The library's role as an interdisciplinary team facilitator began in the initial planning stages of a new state-supported building dedicated to classroom support of the health sciences programs. A fully equipped eighteen examination room skills laboratory was incorporated into the building that is used for both training and testing. A pilot program was set up with the four colleges that tested the theories of student interaction in a team health care environment. The pilot was successful and led to a full scale program with all graduating seniors. Standardized patients were brought in and trained as patients with specific medical issues. The students interviewed their patient in the presence of their colleagues, and a case study was prepared and presented by each interdisciplinary team to the larger group.

**Conclusions:** The student's attitudes and skills were evaluated and are reported. Results show that the clinical team experience is valuable to the vast majority of students, and that observing the other disciplines and working together was more important than learning about the specific treatments for the patient.

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#### **Using Pretests and Posttests to Assess Database Searching Instruction**

**Danielle M. Carlock, AHIP**, Reference and Instruction Librarian and Health and Life Science Specialist, Library at the Polytechnic Campus; **Jonna Anderson**, Clinical Assistant Professor, College of Nursing and Healthcare Innovation; Arizona State University–Mesa

**Objective:** The objective of this study was to determine whether a new instructional program was effective for teaching database searching skills to student nurses.

**Methods:** Two 3-hour modules were developed to teach CINAHL and MEDLINE searching skills (on the Ovid platform). The first module covered keyword searching and the second module taught controlled vocabulary searching. Each module was preceded by a pretest. Hands on instruction and graded in-class exercises were used to teach the content. Immediately following instruction a posttest was administered. The pretests and posttests included multiple choice questions as well as a standardized search. Eighty junior I nursing students participated and instruction was conducted in groups of ten.

**Results:** The mean score on the keyword pretest was 9.6 out of 14 (68.5%), n= 77, and the mean score on the keyword posttest was 13.1 out of 14 (93.5%). The mean score on the controlled vocabulary pretest was 6.2 out of 19 (32.6%), n=71, and the mean score on the controlled vocabulary posttest was 17.2 out of 19 (90.5%).

**Conclusions:** The modules were successful in teaching database searching skills. However, it is not known whether students retained the skills. During instruction, students struggled with choosing appropriate Medical Subject Headings (MeSH), tended to confuse subject headings with subheadings, and had trouble distinguishing between exploding and focusing. While the in-class assignment helped to clarify these problem areas, some students struggled with these skills in the posttest. To measure retention, future studies should include a follow-up posttest administered several months after instruction.

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### **An Emerging Alliance: Librarians Collaborating with Colleagues in Medical and Health Care Education**

**Julia Sollenberger, AHIP, FMLA**, Director, Health Science Libraries and Technologies, University of Rochester Medical Center, Rochester, NY; **Lauren Maggio**, Head of Library Education and Information Management, Alumni Medical Library, Boston University Medical Center, Boston, MA; **Erika L. Severson**, Health Sciences Librarian, Ebling Library, University of Wisconsin–Madison

**Objective:** This poster exhibit presents emerging collaborations between medical librarians and their colleagues in health professions education. Association of Academic Health Sciences Libraries (AAHSL), Librarians in Medical Education (LiME) of the Association of American Medical Colleges (AAMC) regional groups, and GEA (Group on Educational Affairs, AAMC) are working together to accomplish shared goals, both at individual institutions and at the national association level. A map of the United States will display the members of LiME regional librarian groups that are partnering with AAHSL and their medical education faculty colleagues in GEA. New projects range from shared instruction to joint research initiatives.

**Brief Description:** Librarians are natural collaborative partners in medical education and research, with goals and interests that overlap with others in the field. Across the full spectrum of education, librarians can contribute their expertise and weigh in on issues that relate to access and quality of health information. Areas of interest in common with health sciences educators/researchers are lifelong learning competencies, evidence-based practice, self-directed learning, patient-centered care, quality of care, patient safety, competency-based education, faculty/instructor development, interdisciplinary teams, health literacy, problem-based learning, and educational technology.

**Results:** To move forward in forming and building alliances, an AAHSL task force developed a formal plan that outlines a vision and implementation steps for developing collaborative initiatives with a variety of colleagues in health sciences education. New initiatives from that plan and from current LiME activities will be presented in the print poster.

**Outcome:** Potential partnerships will emerge as academic medical librarians identify a research and action agenda

that meshes with goals expressed by AAMC. The poster exhibit can serve as a natural forum for discussion about these possible collaborations.

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### **Repairing the Bridge: Assessing Critical Information Skill Deficiencies in Medical Residents**

**Rick Wallace, AHIP**, Assistant Director, Quillen College of Medicine Library, East Tennessee State University–Johnson City

**Objective:** To analyze what information skills medical residents have in PDA use, evidence-based medicine (EBM), Loansome Doc use, and off-campus access to databases.

**Methods:** A survey analysis was conducted of 217 medical residents from the 2005/06 East Tennessee State University Quillen College of Medicine class in surgery, family medicine, internal medicine, obstetrics/gynecology, psychiatry, pediatrics, and pathology with a return rate of 48.4%. Quantitative analysis was performed with the SPSS (v. 14.0 for Windows) software program. The results were expressed in percents in graphical or tabular form. The data were analyzed using descriptive statistics (frequencies, mean, median, and mode), and inferential statistics (Mann-Whitney U test and chi-square test.)

**Results:** On a Likert-type scale of 1–7, medical residents rated their PDA skills at a mean of 5.11. By the Kruskal-Wallis Analysis of Variance statistic, there were no significant differences between residency programs. By use of the Mann-Whitney U Test statistic, it was determined that there was no statistically significant difference between the PDA skills or residents and their attendings. On a Likert-type scale of 1–7, medical residents rated their EBM skills at a mean of 4.82. There was a significant difference between residency programs as determined by the Kruskal-Wallis Analysis of Variance statistic. Residents were infrequent Loansome Doc users, and a disturbing 49.5% did not know how to access medical databases from off-campus.

**Conclusions:** Residents need more training by medical librarians in the clinical information skills of PDA use, EBM, Loansome Doc, and off-campus access.

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### **The Culture of Medicine and Nursing: Implications for Information Literacy Training**

**Elena Prigoda**, Instruction and Liaison Librarian, Gerstein Science Information Centre, University of Toronto Libraries, Toronto, ON, Canada; **Liz Bayley**, Acting Director, Health Sciences Library, McMaster University, Hamilton, ON, Canada; **Doug Suarez**, Reference Librarian, James A. Gibson Library, Brock University, St. Catharines, ON, Canada

**Objective:** We planned to determine what behaviors were expected from nurses and physicians to function as competent clinicians and what liaison librarians could do to help these behaviors develop and thrive. In doing so, we compared and contrasted the respective social psychologies and professional subcultures of these professions. Specifically, our questions were: what content do these

different populations need to learn, what modes of delivery are most effective, and how can we jump from delivering information to helping our liaison groups develop the behaviors necessary to practice competently?

**Methods:** By conducting a systematic review of the evidence around professional cultures and competencies of physicians and nurses, we aimed to compare and contrast the skills and behaviors valued by these two professional groups. Through combining reflection on our experience with the relevant literature, we drew conclusions about how we as liaison librarians could change our practice to foster the behaviors that will enable our different liaison populations to function competently.

**Results:** The evidence was less abundant than we anticipated. Much of the literature was from the 1980s and 1990s, making it difficult to transfer to today's electronic environment. Evidence was also more general, and interpretation was required to apply it to information fluency.

**Conclusions:**

**Implications for practice:** Information fluency education in medicine and nursing should differ. In medicine, an overarching issue is certainty, and evidence-based information and resources give students, practitioners, and faculty a way to deal with uncertainty. In nursing, students' work is often theoretical and requires qualitative research, while practitioners seek skills-based information to inform their practice and thus may require different tools.

**Implications for research:** To validate the statements above and given the lack of evidence on this topic, we hope to conduct a qualitative research study with students, faculty, and/or practitioners to assess their information needs and develop generalizable strategies for delivery of information fluency education.

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**PDA's and First-year Medical Students**

**Annis Lee Adams**, Acting Head of Public Services;  
**Virginia M. Tanji**, Director, Health Sciences Library;  
**Joshua L. Jacobs**, Associate Professor, Office of Medical Education; University of Hawaii–Manoa School of Medicine, Honolulu, HI

**Objective:** As a part of three-year project funded by the National Library of Medicine grant 5G08LM008130-03 that aimed to improve electronic communication with medical students in a community-based medical school, medical students were given training on using cell phone PDA's to access MEDLINE. We surveyed medical students' abilities and comfort with PDA's in general as well as searching Medline on the PDA's.

**Methods:** A survey was given to both grant participating and a control group of non-grant participating students at three times during the grant period. The first time was before the participating students had any training on the use of their PDA's (baseline). The principal investigator provided training on general PDA use to grant participating medical students. Additionally, a librarian provided training on finding medical literature using MD on Tap, a PDA application to search MEDLINE, to the same grant

participating students. The second survey was given at the end of the school year after participating students had their PDA's for approximately eight months (end year 1 survey), and the third survey was administered at the end of the second year of participating students having their PDA's (end year 2 survey).

**Results:** The rate of return for the first two surveys was 100%, because they were administered during class. The rate of return for the final survey was lower (38%), because students responded at their leisure. On the baseline, 62% agreed that a PDA would enhance their educational experience in medical school. That dropped to 46% on the end year 1 survey, but then spiked back up to 75% on the end year 2 survey. When asked if the information found in MD on Tap was useful, the students consistently disagreed on both the end year 1 (37%) and end year 2 (40%) surveys. Anecdotally, students liked using their PDA's for quick medical reference (e.g., dictionaries) and for calendar functions but found the information from MD on Tap beyond what they need in the first two years. Possibly, a higher satisfaction with MD on Tap would be found after the clerkship years.

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**Integrating Evidence-based Practice and Library Research Skills into the Physical Therapy Curriculum**  
**Clista Clanton, AHIP**, Education Coordinator, Baugh Biomedical Library, University of South Alabama–Mobile

**Objective:** As many university departments continue to add distance education programs to their curriculum, it becomes a challenge for librarians to provide instruction to remote students. Questions that could and should be answered by a librarian are often either not addressed or have to be fielded by course instructors or other students. As a result, both library resources and expertise are underutilized and students are left at a disadvantage. This poster describes an eight-week online course developed and taught by a librarian designed to prepare entry-level doctoral physical therapy students with specific skills necessary to successfully navigate online resources to enhance both their degree program and clinical practice.

**Methods:** The library's education coordinator developed a required one credit, online course for the entry-level doctor of physical therapy program that will be offered each semester. Course topics include evidence-based practice, copyright issues, American Medical Association citation style, Web 2.0 tools, and bibliographic instruction on databases including PubMed, CINAHL, Scopus, the Cochrane Library, Pedro, TRIP, Dynamed, and MedlinePlus. The instructor solicited feedback from students via email and class discussion on both the course and the resources utilized and will integrate the knowledge obtained in each successive course offering.

**Results:** This course has now been offered two semesters to a total of twenty-nine students. Course feedback indicates a high level of satisfaction, increased comfort with using library resources, and more confidence in successfully navigating databases and other resources for both

academic and clinical use. Many of the students indicated a low technological comfort level at the beginning of the course and needed a fair amount of “hand holding” due to the online nature of the course. Differences between the two class cohorts included level of interaction with both each other and the instructor via online threads and email. One of the positive aspects of the course has been continued interaction with students as they move on to other online courses yet continue to contact the instructor when they have library related questions.

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### **Making Connections: In-person Hands-on Training Across the United States**

**Janice Kaplan**, Director; **Joseph Nicholson**, Database Trainer/Online Analyst; **Eva Daniels**, Online Administrative Assistant; National Training Center and Clearinghouse; **Vijay Nandi**, Senior Research Analyst, Center for Urban and Epidemiological Studies; **Sharon A. Brown**, Database Trainer/Online Analyst; **Maureen K. Czujak**, Assistant Director; National Training Center and Clearinghouse; New York Academy of Medicine—New York

**Objective:** To demonstrate the reach and effectiveness of in-person nationwide training for health sciences library staff, public library staff, health professionals, and any other US residents on three National Library of Medicine (NLM) databases (PubMed, TOXNET, and NLM Gateway/ClinicalTrials.gov).

**Methods:** In year one (June 2006–April 2007) of a five-year contract (#N01-LM-6-3510), the National Training Center and Clearinghouse (NTCC) located at the New York Academy of Medicine collaborated with twenty-six sites to host in-person computer lab training, teaching a total of sixty classes. Sites were recommended by education coordinators from each of the Regional Medical Libraries. Site locations include major medical facilities, universities, and state or regional library councils. The classes are intended to extend the reach of NLM resources and help bridge performance gaps in use of resources by health sciences library staff, public library staff, and health professionals. Using a map of the United States and tracking the number of people who attended the class, by the zip code provided on the participants registration form, will show geographic distribution of site locations and participants. The training was evaluated by participants using the MLA evaluation form.

**Results:** Over the course of a year, the NTCC had 900 class participants. A quick glance at the data plotted on a map reveals the reach of NTCC classes, with the highest densities of participants clustered around the site locations.

It was also determined that the evaluation form used measured satisfaction with the class but not effectiveness. As a result, in the following year an experimental measurement was added to gauge the effectiveness of each class.

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### **An Eight-module Information Skills Curriculum to Support Accreditation Council for Graduate Medical Education (ACGME) Competencies**

**Doreen R. Bradley**, Liaison Services Coordinator; **Gurpreet K. Rana**, Clinical Education Librarian; Health Sciences Libraries; **Monica Lypson**, Assistant Dean for Graduate Medical Education, Medical School/Graduate Medical Education Office; **Stanley Hamstra**, Associate Professor, Medical School/Department of Medical Education, University of Michigan—Ann Arbor

**Objective:** The presence of library instruction in graduate medical education (GME) programs is often uneven. The Accreditation Council for Graduate Medical Education (ACGME) competencies create multiple opportunities to leverage librarian expertise to improve residency education. At the University of Michigan, the health sciences libraries and GME office partnered to develop a systematic, centralized approach to incorporating information skills in residency education, particularly in practice-based learning and improvement.

**Methods:** In early 2007, the health sciences libraries and the GME office began collaborating to enhance educational opportunities for residents and fellows. Library instruction was very deeply integrated into several programs, and the desire was to make this level of instruction available to all programs. Based on topics the library frequently taught in GME programs plus additional skills important to practicing clinicians, the library and GME Office developed a comprehensive eight-module information skills curriculum to support the ACGME competencies. Working as a team and capitalizing on each person's unique area of expertise, the health sciences librarians developed teaching objectives and outlines for each module, while the GME Office helped to refine the modules and identified relevant ACGME competencies.

**Conclusions:** In fall 2007, the curriculum was presented at a GME program directors meeting. Use of the modules is being monitored, and assessment tools are currently in development. The health sciences libraries and the GME office believe that this approach to information skills curricula will serve as a model to other academic medical centers.

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### **Enhancing Faculty Information Skills**

**Doreen R. Bradley**, Liaison Services Coordinator; **Gurpreet K. Rana**, Clinical Education Librarian; **Patricia M. Redman**, Liaison Services Librarian; Health Sciences Libraries, University of Michigan—Ann Arbor

**Objective:** Faculty face challenges in integrating the best knowledge resources into their curriculum as well as keeping up with students who are using newer technologies. At the University of Michigan, librarians are using creative techniques to promote and offer educational opportunities to faculty.

**Methods:** Librarians have become a valuable resource for faculty by providing instruction on new and evol-

ing information resources and helping faculty integrate them into their teaching. Recent instructional sessions for faculty have included: hands-on computer sessions for the nationally renowned University of Michigan Medical Education Scholars Program, instruction in psychosocial information resources for M1 and M2 faculty group leaders, presentations on clinical resources for internal medicine and pediatric hospitalists, and presentations at departmental grand rounds lectures. In addition to instruction to groups of faculty, librarians also provide extensive consultation services tailored to the specific needs of individual faculty. The combined goal of these efforts is to provide a variety of opportunities that encourage faculty to enhance their information skills for teaching, clinical, research, and professional education needs.

**Conclusions:** The initial response from faculty has been extremely positive, leading to not only additional faculty development and training opportunities, but an increased faculty interest in collaboration with health sciences librarians in undergraduate and graduate medical curriculum.

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### **How Do Users Formulate Their Queries? A Morphosyntactic Analysis**

**Nicolas A. Fairon**, Assistant; **Francoise Pasleau**, Scientist; Life Sciences Library, University of Liege, Sart-Tilman, Belgium

**Objective:** This paper aims to analyze a corpus of MEDLINE queries written in natural language from a morphosyntactic point of view to determine text recognition patterns matching medical concepts. This analysis has two objectives:

- to highlight user difficulties when formulating their queries
- to pursue the development of a natural language model to query MEDLINE

**Methods:** Queries have been collected during the last two years. The corpus contains hundreds of queries tagged with their complexity and is divided into two parts. The first one is focused on development purposes. We are using it to build patterns that match the biomedical concepts in our users' queries. The patterns are built using Unitex software. We test them on the second part of the corpus. The second part of the corpus allows us to test our patterns on new material and evaluate their efficiency by computing both specificity and sensitivity in keyword retrieval. The aim of the patterns is to describe how the medical concepts appear in user queries used by librarians to perform their bibliographic research at the request of users. The concepts retrieved with our patterns are then compared to Medical Subject Headings concepts.

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### **Turning the User into the Builder: Implementing a Wiki for Clinical Research**

**Sarmad Nazemi**, Research Database Coordinator; **Paul Fearn**, Informatics Manager, Department of Surgery; Memorial Sloan-Kettering Cancer Center, New York, NY

**Objective:** We present our experiences with introducing a wiki to an information-driven clinical research setting. The wiki serves as a means for users to share and modify information, without the prerequisite of arduous web development training. As this resource became available to all staff, the project's moderators played a secondary role in site development, paving the paths laid by users.

**Methods:** We looked to directly connect novice and experienced web users to the ever-changing information that they demand. Our data management team, exploring potential solutions, began to educate themselves with the makeup of wiki environments, experimenting with the application's tools for configuring, moderating, and editing the site. Found to be viable, the team introduced the benefits of a wiki through a series of presentations. User training evolved from demonstrations to hands-on tutorial sessions. The user-base continues to grow as the wiki's utility becomes increasingly evident. We anticipate users will become trainers and lead the way for site development. By turning users into builders of site content and structure, we aim to eliminate delays in communication between readers and sources. In discussing the implications of such a resource, we expect to advance institutional standards with the progressive nature of transparent information

**Results:** Six months after going live, the wiki's 80 registered users have created 216 articles. Wiki administrators have installed 9 plug-ins to extend the application's functionality, recently adding Google Gadgets support. Moderators have focused on identifying and reinforcing the site's infrastructure, developing community resources in the context of clinical research. Sixteen formal tutorial sessions were held, and the most recent addition was the topic, "Writing to a Public Audience." Future directions are to focus on developing community-led wiki tutorials, to establish user groups, and to address differences between the needs of wiki readers and those of editors. Subsequent conversations have continued to increase our collective knowledge about Web 2.0 tools and are a positive sign that we will continue to explore a user-driven, web-based means of collectively building and sharing information.

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### **A Most Convenient Truce: Teaming up with Environmental Medicine to "Green" Our Library Survivor Tour**

**Angela V. Dixon**, Head, Collection Management; **Marilyn Rosen**, Biomedical Sciences Librarian; Edward G. Miner Library, University of Rochester, Rochester, NY

**Purpose:** This poster will illustrate efforts to expose new medical students to environmental health and related issues through our orientation tour.

**Setting:** The tour was conducted in an academic health sciences library serving a school of medicine and dentistry, a school of nursing, and a 690-bed hospital. Every August, first-year medical students are required to tour the library.

**Methods:** The environmental medicine department received a pilot grant to integrate environmental medicine into the first- and second-year medical school curriculum. The library liaison was invited to join the steering committee. Previously, the library had created a scavenger hunt to replace the traditional orientation for first-year medical students. Teams, while scouting out answers, became acquainted with the physical and virtual library space and responded to website usability questions. The tour was the perfect opportunity to expand the medical students' awareness of environmental health risks. The steering committee identified these themes: water pollution, air pollution, lead poisoning, infectious diseases, and household risks. Some original questions were easily aligned with these issues, while others required expanding to environmental sustainability topics. In reviewing the revisions, the steering committee recommended adding environmental web resources, which was addressed with a usability question.

**Results/Outcome:** Students participated in a multipurpose, fun activity. They visited various locations in the library, while learning of the environmental health issues facing patients. They even named their teams along the themes: "Paint Chips," "Lead Zeppelin," "SARS Pirates," "Planetees," and "Smog." The project investigators will include the Survivor Tour in future articles and publications about the grant.

**Evaluation:** Written comments were solicited at the end of each tour. Students were very enthusiastic about the tour format but did not address the environmental health themes. Anecdotal evidence, in the form of overheard conversations, indicated their surprise at the amount of paper used in US offices and the energy that could be saved by turning off their laptops. The grant investigators felt the students' reaction indicated a lack of understanding of the environment's effect on health and suggested adding a pre- and posttest or more specific evaluation questions next year.

### 61 Health Literacy Education Initiative (HLEI): Improving Patient Health Literacy While Enhancing Physician Assistant Patient Education Skills

**Lisa Smith**, Outreach Librarian, Gibson D. Lewis Health Science Library; **Patti Pagels**, Clinical Education Coordinator, Physician Assistant Studies Program; University of North Texas Health Science Center—Fort Worth

**Objective:** The University of North Texas Health Science Center Library in conjunction with the physician assistant studies program sought to increase the health literacy of caregivers of pediatric patients while increasing PA student patient education skills. Students received instruction in the essential components of health literacy and subsequently utilized those techniques to instruct patients in basic wellness concepts.

**Methods:** Two audiences were targeted to receive health literacy instruction. Instruction was provided to students enrolled in the PA program and caregivers of pediatric

patients. Student training included instructional sessions describing the concepts of health literacy, effective patient-health professional communication, and techniques for searching the MedlinePlus database. Instructional sessions were conducted by PA studies faculty, Tarrant County Public Health Department health educators, and the outreach librarian. PA students subsequently conducted patient education sessions comprising patients and caregivers visiting the pediatric patient care building for scheduled office visits. Patient education sessions consisted of fifty-five 15-minute presentations utilizing laptop's connected to the internet to demonstrate how to search for consumer health information from the National Library of Medicine. Surveys were completed by students and patients to determine participant perceptions of instruction quality and satisfaction with MedlinePlus as a patient education tool.

**Evaluation:** Evaluative data were collected via survey instruments distributed to both students and patients. Patient education sessions conducted by students were assessed by two survey instruments to determine patient satisfaction with information obtained during these instructional sessions and a self-evaluation completed by the student presenter to determine student perceptions of how well they covered the objectives for the presentation.

**Results/Outcome:** This project reached two audiences: the health care/information consumer and the patient educator. The PA student acquired lifelong teaching skills that may be utilized as they spend their careers educating patients in the appropriate use of medical information. Caregivers became better consumers of health information while learning information-seeking techniques. Caregivers also learned basic diagnostic skills to help them effectively care for the needs of pediatric patients. Additionally, the university library established a successful collaborative relationship with both the campus PA studies faculty and the county public health agency.

### 63 Assessing the Impact of Information Literacy Instruction in a Beginning Nursing Professional Seminar Course Using Citation Analysis

**Stephanie J. Schulte**, Reference and Information Services Librarian, Walter E. Helmke Library; **Rebecca Jensen**, Assistant Professor, Director of Simulation and Research; **Pam DeKoninck**, Visiting Professor, Department of Nursing; Indiana University-Purdue University—Fort Wayne

**Objective:** To determine if librarian instruction on web evaluation, cultural sources, and introduction to CINAHL had a greater impact on the references in a bibliography than similar instruction by a nursing faculty. Also, to determine what students were citing in relation to the web, scholarly articles, books, and other resources in written nursing assignments.

**Methods:** Cohort study: During the fall 2006 and spring 2007 semesters, the librarian provided a one-hour in-class instructional session covering web evaluation, various

sources of cultural information, and an introduction to searching CINAHL to four sections of a two-credit hour beginning professional seminar for nursing students that focuses on writing for nursing. Four sections of the same course received similar information from the nursing faculty member. To measure the effect of librarian instruction, citation analysis was performed using bibliographies from a culture paper assignment in the class. References were individually coded by type using SPSS. Sections instructed by a librarian were compared to sections instructed by a nursing educator.

**Results:** A total of 792 references were coded from 178 bibliographies. Students primarily cited websites and books, followed by scholarly journal articles. The majority of citations were to works published since 2000, but book citations tended to be older. No significant differences were seen between librarian-instructed sections and nursing faculty-instructed sections. Some evidence suggests students are using the public library as a resource rather than the academic library.

**Conclusion:** Instruction to beginning nursing students on the use of appropriate resources for writing assignments in nursing courses is important due to the sheer volume of such assignments in just the first two years of the nursing program. This study demonstrates the need to investigate and augment current instruction in some way to increase nursing students' knowledge and navigation of resources. These skills are imperative to producing an evidence-based nursing workforce, including the associate degree entry-level nurse.

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### **Another Life: A Survey of Health and Medical Sites in Virtual Three-dimensional Worlds**

**Mark D. Puterbaugh**, Information Services Librarian, Warner Memorial Library, Eastern University, St. Davids, PA; **Mi Young Lim**, Registered Nurse, Genesis Healthcare Systems, Norristown, PA

**Objective:** The poster will present discussion on the issues and potentials in designing virtual three-dimensional worlds as a tool for presenting health and medical information. We hope to answer the questions regarding the future use of these environments as an educational tool.

**Methods:** The poster will present information regarding the use of virtual three-dimensional worlds collected from on-site observation and in interviews with site owners and site visitors. The presenter will sample sites found in Second Life, There, Activeworld's, and others to determine the extend of the use of these environments for health and medical education.

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### **Bridging the Gap in the Office: Intra-office Instant Messaging**

**Emily O. Molanphy**, Web Services Librarian; **Shannon Kealey**, Librarian for Digital Educational Initiatives; Ehrman Medical Library, New York University–New York

**Objective:** To discover whether instant messaging (IM) can be used effectively for internal library communications at New York University (NYU) Health Sciences Libraries despite differences among staff in technology experience, schedules, and interest in new tools; to determine the best way to implement an IM initiative; to ascertain whether IM use has improved staff satisfaction with internal communication.

**Setting:** A multilocation academic health sciences library with roughly sixty full-time equivalents (FTES) and an office culture that relies heavily on email.

**Methods:** The project began with a survey sent to all library staff to determine their interest in and experience with IM. After doing research into the advantages and limitations of potential solutions, in terms of software and protocol compatibility, the authors made recommendations to library administration about how IM could improve the quality and efficiency of communications, and asked several users to try the service and software as a pilot. Based on those users' experiences, brief training sessions were developed and delivered. A second survey reexamined the communication habits of staff not only in terms of IM use but also to determine if other modes of communication (phone, email) were affected.

**Results:** There were 27 responses to the initial survey. Of those who responded, 85% were interested in using IM. If all of those who reported interest used it, a minimum of 21 would use IM. As of February 27, 2008, 28 staff members have responded to the second survey, and 18 reported using IM.

**Conclusions:** The survey results show that the user pool for IM is fairly small but very active. It has proved to be a valuable addition to communication modes. The greatest barrier to usage is that some prefer other modes of communication, and IM is voluntary. One projected obstacle was the difficulty of installing the program, but only one respondent cited that as a difficulty. In hindsight, rather than pursuing a seemingly nonintimidating low-pressure strategy, perhaps we should have been a bit more intrusive to increase the number of staff members who communicate using IM.

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### **Podcasting: Making the Connection Embraces More than Recording, Posting, and Registering**

**Janice E. Cox**, AHIP, Head Librarian, School of Dentistry Library, Indiana University–Indianapolis

**Objective:** Following an announcement about the availability of this new Web 2.0 instructional technology, library orientation podcasts were created. This poster demonstrates that podcast development involves more than the three technical steps of file recording, posting the MP3 to the web, and registering the file on a podcast directory. The project embraced administrative, legal, technical, and production considerations.

**Methods:** After receiving instruction in the use of podcast creation software, issues involving target audience, content, image, copyright, personnel, equipment availability, bandwidth, and storage were researched prior to podcast

creation. Information gathered was used to make administrative, technical, and production decisions. This initial project resulted in five podcast episodes that have been made available to faculty, students, and the general public. The episodes cover various library orientation topics. The steps included:

1. attended "Basic Podcasting: Audacity" training
2. consulted with copyright management, digital media, and illustrations staffs
3. consulted university style manuals
4. developed episode narration scripts
5. took digital photos to accompany audio narration
6. created music using simulation software
7. used podcast creation software to develop podcasts and vodcasts
8. previewed podcasts and vodcasts
9. added metadata
10. posted podcasts to iTunes U and content management systems
11. conducted survey

**Results:** One hundred first-year dental students were surveyed about podcasting. Questions focused on equipment, account ownership, and podcast downloading. Twenty-three responses (23%) were received. Eighty-seven percent of the respondents own a MP3 player; 52% have iTunes accounts; 35% downloaded a podcast file. Music was most frequently downloaded (39%) with news and lectures (17%) tying for second. MP3 player ownership was 8 times that reported in the April 2005 Pew Internet study and listening to audio files was comparable. With MP3 ownership growing and content potential expanding, libraries have an excellent opportunity to add podcasting to their information delivery arsenal. Podcasts offer an alternative information delivery method with the potential to enhance instructional and learning experiences. Twenty-four/seven availability and equipment portability allow learning and information dissimulation to occur anywhere and at anytime. Podcasting offered library faculty an opportunity to partner with other university personnel. The library plans to extend its podcasting initiatives.

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### **Qualitative Evaluation of the National Library of Medicine Associate Fellowship Program**

**Barbara A. Rapp**, Coordinator, NLM Associate Fellowship Program, National Library of Medicine, Bethesda, MD; **P. Zoe Stavri**, Consultant, P. Zoe Stavri Research, Analysis, and Design, Gettysburg, PA

**Objective:** Between 1966 and 2005, 193 librarians were trained through the National Library of Medicine's post-master's Associate Fellowship Program in health sciences librarianship. A qualitative program evaluation was conducted to assess program outcomes, determine the impact of the program on careers, and identify ways to improve the fellowship.

**Methods:** The study used a complete sample design, and concerted efforts were made to reach all former fellows who are still living. A total of 142 fellows were interviewed

using multiple methods. Nineteen long oral histories and 8 intermediate-length semi-structured interviews were conducted in person. An additional 115 short structured interviews were conducted by phone. Respondents were asked to provide information on their career path, professional leadership activities, benefits of the program, impacts on their career, and suggested changes. Interviews were analyzed qualitatively and coded by constant comparison method to identify common themes. Resumes were also collected for descriptive analysis of undergraduate and graduate training fields and institutions and for tracking of employment and professional activities.

**Results:** Fellows highlighted benefits related to developing professional relationships, understanding the "big picture," understanding organizational structure and operations, project conceptualization and management, observing management styles, refining career goals, and developing confidence. Highlights from suggestions for improvement include increased opportunity to shadow library leaders, longer project periods, and use of online modules for self-pacing and sharing. Following the program, most stayed in health sciences librarianship and most assumed leadership roles in areas of interest. Of those who changed direction, some moved to another type of library; some went to health care, information, or computer industry; some pursued additional degrees; and some took time off to raise a family.

**Conclusions:** The impact of the program in project management, exposure to broad visions of the field, and understanding of different management styles has been key in career and leadership development. Recommendations for program content changes and increased retention in health sciences librarianship will be developed.

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### **Veggies 2.0 (Because It's Good for You)**

**Bart Ragon**, Associate Director for Library Technology Services and Development; **Andrea S. Horne**, Associate Director for Information Services; **Daniel Wilson**, Associate Director for Collection Management and Access Services; **Claude Moore** Health Sciences Library, University of Virginia—Charlottesville

**Objective:** The library designed a staff development project based on the Learning 2.0 Program first implemented by the Public Library of Charlotte & Mecklenburg County. Dubbed "Veggies 2.0 (Because It's Good for You)," this voluntary experience was designed to encourage library staff to explore commonly used Web 2.0 technologies.

**Methods:** Keeping current with technology is a challenge that most libraries face. The increasing volume of Web 2.0 applications has become intimidating as libraries try to discover the technologies most relevant to their users. During August 2007, twenty-eight out of forty-one staff members volunteered to participate in the program. Each staff member was assigned to a team consisting of three to four participants. Every week a project guide, volunteers from the library staff familiar with the technology, introduced a Web 2.0 application in an optional kick off session for staff. The project guide led the discussion

for the week and became an advocate for participation. The selected technologies included Google Labs, Flickr, del.icio.us, Digg, LibraryThing, Facebook, Second Life, and YouTube. Veggie participants were given a list of tasks and instructions to complete for each week.

**Results:** Participation was strong at the beginning of the project and level throughout. Drops in participation were attributed to staff vacations, the beginning of the new school year, and technology burnout. At the conclusion of the project, an informal feedback session was held to discuss the project with the participants.

**Conclusion:** Staff offered positive feedback about the project and expressed interest in future learning opportunities. It was suggested that smaller more focused sessions occur on a periodic basis to keep staff informed. Further suggestions included providing a “suggestion box” for future topics, creating an advanced showcase for more cutting edge technologies, and developing refresher projects on topics already covered. Due to the positive outcomes of the project, we will continue to employ Veggies as an ongoing current awareness tool to help staff maintain knowledge of new, existing, and emerging technologies.

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#### **Analysis of Cochrane Collaborative Electronic Search Methods for Location and Identification of Studies**

**Jeanette de Richemond, AHIP**, Medical Information Specialist and PhD Candidate, TA Information Center and School of Communication, Information and Library Studies, ECRI Institute and Rutgers University, Plymouth Meeting, PA, and New Brunswick, NJ

**Objective:** The objective of the study is to review and analyze electronic search methods used by various Cochrane Review Groups by examining published documentation of search strings and strategies. The study identifies similarities in methods of search construction and use of controlled vocabulary and text words among review groups. The study examines differences between Review groups in dealing with factors that may bias retrieval.

**Methods:** Twenty-five documented search methods for locating and identifying studies using Ovid MEDLINE will be selected randomly from the universe of electronically published reviews by the Cochrane Review Groups. The documentation of search strings and strategies will be analyzed and tabled to examine use of subject headings including methodological terms, disorder terms and treatment terms with and without subheadings and qualifiers, text terms including terms for appropriate study design, Boolean logic, phrase and adjacency searching, nested terms, and truncation. The study also compares the use of Cochrane highly sensitive search strategy (HSSS) and modified HSSS among groups. Relevant data will be analyzed for consistencies, correlations, and deviations in documented search methods between groups.

**Results:** Results will present the applications and modifications of the three parts of the Cochrane HSSS for identifying randomized controlled trials in MEDLINE, similarities in frequently used strategies, and use of filters.

Results will also analyze search complexity by disassembling search strings to examine their components and use of various advanced techniques.

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#### **Interdisciplinary Collaboration to Advance Evidence-based Behavioral Practice**

**Kristin Hitchcock**, Project Coordinator, Department of Preventive Medicine, Northwestern University, Chicago, IL; **Ross Brownson**, Professor and Director, Prevention Research Center, School of Public Health, St. Louis University, St. Louis, MO; **Edward Mullen**, Willma and Albert Musher Chair Professor, School of Social Work, Columbia University, New York, NY; **Robin Newhouse**, Assistant Dean, Doctor of Nursing Practice Program and Associate Professor, School of Nursing, University of Maryland–Baltimore; **Jason Satterfield**, Associate Professor of Clinical Medicine and Director, Behavioral Medicine, Division of General Internal Medicine, School of Medicine, University of California–San Francisco; **Bonnie Spring**, Professor and Director, Behavioral Medicine, Preventive Medicine, Northwestern University, Chicago, IL; **Barbara Walker**, Clinical Professor, Department of Psychological and Brain Sciences, Indiana University–Bloomington; **Evelyn Whitlock**, Investigator in Epidemiology and Disease Prevention, Kaiser Permanente Center for Health Research and Oregon Evidence-Based Practice Center, Portland, OR

**Objective:** To upgrade evidence-based behavioral practice (EBBP), this project aims to promote communication about traditions of evidence-based practice in the major behavioral health disciplines; disseminate information about concepts, methods, and tools used in EBBP; identify didactic and practical training needs for EBBP across disciplines; and provide educators with tools for teaching EBBP concepts and skills to students and practitioners.

**Methods:** All major health professions now endorse the policy of evidence-based practice. Preconditions are thus established for professionals in the health and social sciences to acquire shared vocabulary and conceptual grounding that facilitate collaboration in research and practice. Beginning in 2007, a multidisciplinary panel of experts convened and drafted a white paper that defines and outlines competencies for evidence-based practice in the field of behavioral health. Organizations from multiple disciplines—medicine, nursing, psychology, public health, social work, and library science—were invited to affiliate with the panel, share EBBP work across disciplines, provide feedback on project deliverables, and disseminate training materials to their membership. A website was developed to provide an Internet presence for the project, to disseminate the white paper, to link to evidence-based practice resources, and to serve as a platform to deliver future web-based training modules.

**Results:** Twenty-three organizations have affiliated with the project. The white paper was revised with their feedback. Practitioners look forward to the first training

modules (literature searching and critical appraisal). It is expected that modules will increase demand for EBBP training in graduate curricula and professional continuing education and highlight the need for additional evidence in behavioral practice. In future years, we will engage professionals in generating both synthesized and original, practice-based research to meet this need.

**Conclusions:** This unique, interdisciplinary project provides opportunity to examine research methodologies and evidence-based practice traditions across disciplines. Librarians play important roles in bridging disciplines through: (1) education regarding diversity of available research, (2) instruction in use of relevant resources, (3) improved access to training and resources for practitioners, and (4) expert searching for behavioral health systematic reviews. Opportunities for collaboration and outreach are numerous, especially in the discipline of psychology, where evidence-based practice infrastructure is underdeveloped.

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### **Constructing Solutions for Tomorrow's Needs: An Analysis of Clinical Questions Asked During Morning Report**

**Nakia J. Carter, AHIP**, Clinical Reference Librarian; **Rick Wallace, AHIP**, Assistant Director; Quillen College of Medicine Library, East Tennessee State University–Johnson City

**Objective:** To determine if the types of questions asked at the morning reports conducted by two East Tennessee State University Quillen College of Medicine residency programs, family medicine and pediatrics, and to determine if the databases used by clinical librarians to answer the clinical questions give the Quillen College of Medicine Library (QCOML) insight for future database purchases and end-user training.

**Methods:** A review of questions asked over a six-month period in two primary care morning reports was conducted. Each question was categorized according to the type of question (i.e., therapy, diagnosis, etiology, or prognosis) by two independent reviewers. A third reviewer was used to adjudicate differences in the two reviewers' decisions. The search results from the morning report questions were also reviewed to see which databases were used to answer the clinical questions.

**Main Results:** The percentage of question types was compared between the two programs during the time period of January 1, 2007–June 30, 2007. For every foreground question, the question was then classified as therapy, diagnosis, harm, prognosis, or other. Each morning report then had their questions broken down into a percentage to show how many of each type of question was asked. The results of the questions were analyzed to see which databases were used in answering the questions. The residency programs were then compared to see if any differences existed between them.

**Conclusions:** The analysis will serve as a gauge for the type of training needed or desired by the residents. The

data show an overview of the questions asked that will further aid the QCOML librarians in determining databases and resources that will be most useful to the residency programs.

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### **Customizing EndNote for Institutional Animal Care and Use Committee (IACUC) Protocol Searches**

**Melissa A. Ratajeski**, Reference Librarian, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

**Objective:** To develop a format for delivering search results to researchers completing the 3 R (refinement, replacement, and reduction) section of an institutional animal care and use committee (IACUC) animal protocol.

**Methods:** A customized reference output style was developed by the IACUC library liaison, using the bibliographic management software EndNote. The style incorporates a “3 R label” that is added to records upon import, as well as the field “database name.” As preferred by the researchers, citations are exported into Word documents through the “subject bibliography” tool and sorted by the “3 R label.”

**Results/Conclusions:** The customized output style is formatted to allow quick review of citations and to contain the pertinent information for researchers writing the required narration sections in their animal protocol. Other benefits include the ability for the library liaison to remove duplicate citations by utilizing the “find duplicates” feature in EndNote. Feedback from researchers regarding the new search result delivery format has been positive, and, through its utilization, the library liaison has been able to deliver search results more efficiently, reducing time spent on each protocol.

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### **Are We Making a Difference? Citations to Articles Published in *ORL-Head and Neck Nursing***

**Alicia A. Livinski**, Biomedical Librarian; **Pamela C. Sieving, AHIP**, Informationist/Biomedical Librarian, NIH Library; **Susan F. Rudy**, Research Nurse Practitioner, National Institute on Deafness and Communication Disorders; National Institutes of Health, Bethesda, MD

**Objectives:**

- determine which citation-tracking databases are most useful to determine citation counts and patterns for the otorhinolaryngology nursing specialty journal *ORL-Head and Neck Nursing (ORL-HNN)*
- identify clinical and academic specialties, and subject categories of journals, that cite *ORL-HNN*
- determine most highly-cited authors and papers from the first 25 years of *ORL-HNN*

**Methods:** An EndNote library was created of all articles published in *ORL-HNN* from 1982 to 2007. “Article” was defined by inclusion as a citation in MEDLINE (PubMed) or CINAHL. Each article was searched in databases, which track citations: Web of Science, Scopus, CINAHL, PsycINFO, and the search engine Google Scholar. The

records for each cited article, including data on the articles making the citation, were downloaded to separate EndNote libraries. The citations to each article from all sources were compared to determine the number of unique citations and to determine which citation-tracking database retrieved the most unique citations to *ORL-HNN* articles. Citing articles were examined to identify citation patterns in otorhinolaryngology, nursing, and other disciplines. Citing journals were searched in *Ulrich's Periodicals Directory* and *ISI Journal Citation Reports* to identify their subject categories.

**Results:** Over 150 journals from 74 subject categories cited *ORL-HNN* articles. The most highly cited paper was cited 30 times. There were 51 citations to the most highly cited first author. Twenty-eight variations of the journal's title were identified in the bibliographies of citing articles making retrieval of some *ORL-HNN*-authored articles difficult.

**Conclusion:** Citation counts provide one measure of the significance of an article, and of the journal in which it is published. Citation patterns also reveal relationships between the content of cited and citing articles, and may lead to articles in sources that would otherwise be overlooked. Resources for tracking citations vary in coverage and cost to the user; it is important that biomedical librarians understand the differences between these resources and that they use and recommend appropriate citation-tracking resources.

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### Database Training for Librarians: Doing It Live and Online from the National Library of Medicine

**Katherine B. Majewski**, Librarian, MEDLARS Management Section, Bibliographic Services Division, US National Library of Medicine, Bethesda, MD

**Objective:** The hour-long online "Search Clinic: Chemicals and Drugs in PubMed" (August 23, 2007, 2 p.m., EDT) was a pilot project designed to determine the desirability and effectiveness of presenting online, synchronous database instruction from the US National Library of Medicine (NLM) directly to a librarian audience.

**Methods:** Using content developed by NLM and the National Training Center and Clearinghouse (NTCC), NLM staff offered online instruction on searching PubMed for chemical and drug information. The clinic included a live search demonstration with voice and captioning and text-based interaction using AdobeConnect software. Success was gauged using simple measures of audience interest, satisfaction, and learning. Access to a recording of the clinic is available for continued use via the NLM website at [www.nlm.nih.gov/bsd/disted/clinics/chem.html](http://www.nlm.nih.gov/bsd/disted/clinics/chem.html).

**Results:** The clinic generated great interest, filling to capacity (145 registrants) within hours of minimal advertising. Participants' self-rating of comfort with the material increased significantly as a result of the clinic. In the post-clinic survey, every respondent indicated that they would recommend the clinic. The audience feedback indicated a desire for a longer session with more detail, and made suggestions for future clinic topics.

**Conclusion:** The success of the clinic and the interest it generated create convincing arguments for launching a regular online live instructional program. Planning for future NLM online clinics should include balancing inclusiveness (the size of the audience) with interactivity (the extent to which a participant can engage with the instructor) in light of the instructional goals. A second pilot could reach a larger audience with an open broadcast rather than requiring registration followed by multiple, smaller question and answer sessions to allow greater interaction.

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### Reconnecting the Past: Moving the National Library of Medicine to Chicago

**James Shedlock, AHIP, FMLA**, Director, Galter Health Sciences Library, Northwestern University Feinberg School of Medicine, Chicago, IL; **Ruth Holst, AHIP, FMLA**, Associate Director, NN/LM Greater Midwest Region, University of Illinois–Chicago

**Objective:** To demonstrate why Chicago would have been and still is a fantastic location for the National Library of Medicine (NLM).

**Description:** With "tongue in cheek," the authors explore the idea presented by Kent Smith, FMLA, in his 2007 Leiter Lecture about the consideration given to locating the proposed new NLM in Chicago. Proposals in Congress in the late 1950's debated whether this new national library should be located in the nation's capital or in the nation's heartland. Evidence will be presented about serious lobbying efforts by the Illinois Congressional delegation at the behest of then Mayor Richard J. Daley. Chicago was home to seven medical schools as well as many of the major health associations (American Medical Association, American Dental Association, American Hospital Association) and numerous hospitals. This environment made Chicago a city of health care, and a national library of medicine would be best located in the "heart of the country." The originally proposed nine-acre location has now been developed for other purposes, but the authors will demonstrate their skills in creative real estate development by outlining the potential services of a newly relocated library in Chicago.

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### Improving Gene Name Dictionaries

**Marci Brandenburg**, Student, Health Sciences Libraries, University of Michigan–Ann Arbor

**Objective:** To demonstrate that librarian interaction increases gene name curation efficiency by improving the gene name dictionary currently maintained by the National Center for Integrative Biomedical Informatics (NCIBI).

**Methods:** NCIBI used a gene name curation process that failed to tag about 30% of appropriate sentences. NCIBI asked the health sciences library for assistance in improving recall. Developing a comprehensive gene dictionary is challenging, as each gene name has many synonyms. In addition, it can be a challenge to distinguish between

gene names and protein names during the curation process. The project began with a manual review of sentences associated with the genes commonly not tagged and case-by-case identification of synonyms to improve recall. A review of the literature was conducted to determine current practices, such as the creation of rules, mining existing dictionaries, and using natural language processing. Using professional health sciences library experience and subject expertise in biology, we identified potential methods for improving the gene name curation process.

**Conclusions:** A variety of heuristics have been used to eliminate gene or protein name variations and ambiguities. However, a comprehensive dictionary for gene name curation is yet to be developed.

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### **A Library-based Approach to Translational Informatics Education**

**Kristi L. Holmes**, Bioinformatics Specialist; **Ellen Dubinsky**, Digital Projects Librarian; **Lili Wang**, Bioinformatics Specialist; The Bernard Becker Medical Library; **Rakesh Nagarajan**, Assistant Professor, Department of Pathology and Immunology; Washington University in St. Louis School of Medicine, St. Louis, MO

**Objective:** Advancements in translational medicine have prompted a critical need for approaches that support information dissemination and facilitate fluid data exchange in clinical research environments. In response to this need, a library-based translational informatics initiative has been established that offers access to information resources and effective instructional approaches to enhance information dissemination in a translational research setting.

**Methods:** A library-based translational informatics support initiative has been established to serve a major academic medical research institution and its affiliated hospitals. Bioinformatics support specialists based in the library have developed and implemented an extensive range of training resources in a variety of topics. New courses have been incorporated that reflect themes ranging from general topics to more specific topics such as specialized software analysis tools and databases. Great attention has been directed toward providing just-in-time instructional materials to staff, trainees, and faculty members so that learning may be efficient as well as successful. These approaches may offer a novel way to connect the shared intelligence of the clinical and research communities and offer the library an integral role in the support of the educational and research goals of translational science research centers.

**Conclusions:** Effective support of translational informatics endeavors on campus can be challenging. Sometimes it can be difficult to identify immediate needs and respond to those needs in an appropriate manner. This translational informatics support program has been received positively by the research community, due in large part to the formation of a successful partnership with a bioinformatics advisory group. The group is composed

of faculty members across campus who serve an advisory role toward the outreach, education, and resource procurement objectives of the library-based translational informatics support program. This partnership continues to facilitate positive outreach efforts among the research community and has resulted in enhanced collection development, generation of effective instructional materials, and establishment of a web-based portal for delivery of information and support services to better meet the requirements of patrons in the translational research environment.

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### **How (and How Well) Do Researchers Use Bioinformatics Resources? A Preliminary Analysis**

**Michele R. Tennant**, AHIP, Bioinformatics Librarian, Health Science Center Libraries and UF Genetics Institute, University of Florida—Gainesville

**Objective:** To assess how effectively biomedical researchers use the online resources available from the National Center for Biotechnology Information (NCBI). To delineate the various search paths used by researchers and to determine which tools are used when scientists do not know how to approach a particular question. To explore perceived gaps in resource availability and determine useful attributes of existing bioinformatics resources.

**Methods:** Faculty, graduate and undergraduate students, postdoctoral associates, and research clients at nine university medical or science libraries were tested via online assessment to determine how effectively they used NCBI resources to answer basic biological questions. Through one-on-one observations, researchers' search paths were recorded and compared. Participants were asked to rank their expertise and the question's relevance to their research on a question-by-question basis. Use (or nonuse) of help-related resources was also recorded. Focus group sessions explored researchers' perceptions of NCBI and other online bioinformatics resources. Participants in focus groups were asked to describe the bioinformatics tools that they commonly used, what about them was most and least useful, and what sorts of tools need to be developed to meet researchers' bioinformatics information needs.

**Conclusions:** Preliminary analysis of the one-on-one observation data suggests that users of bioinformatics resources are less effective at searching the databases than they perceive themselves to be. Analysis of the search paths taken by researchers reveals that searchers rarely use any of the online help tools when they do not know how to reach an answer, that search paths vary widely among individuals solving the same questions, and that Google and PubMed are resources commonly used to answer difficult questions, rather than the tools developed to deal with questions of a specific data type. Focus group comments suggest that although researchers are impressed with the vast array of resources available from the NCBI, they are often unaware that requested new resources already exist on the NCBI website. These results

have implications for web interface design, help tool development, and bioinformatics resource instruction and marketing.

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### **Recreating Our Image: Medical Information Professionals as Seen from Our Users' Perspective**

**Brittany L. Rice**, AHIP, Director, Medical Library, Suburban Hospital, Bethesda, MD; **Laurie Davidson**, Assistant Director, Education Services; **Michele L. Malloy**, Librarian, Education Services; **Ivonne Martinez**, Librarian, Outreach; Dahlgren Memorial Library, Georgetown University Medical Center, Washington, DC

**Objective/Purpose:** Professional image is the culmination of qualities and characteristics others use to perceive and judge competence and character. Historically, librarians' image has been rife with negative stereotypes. Presently, our image is impacted by beliefs that librarians are irrelevant in today's digital age. Redefining who we are and what we do ensures librarianship's future and allows us to assume leadership roles.

**Methods:** A new image, one that appeals to our potential users and collaborators, is critical for librarians' survival and success, but first we have to understand our image as seen by our patrons. We propose a survey to elicit information on how librarians are perceived in the medical communities we serve. Faculty, clinical staff, researchers, and medical students will be surveyed. The survey will consist of questions concerning librarians' professional competencies, skills/roles, utility/value to the medical community, professional identity (behavior, attitudes, appearance), and the ways these elements impact the librarian's role and image in these institutions and the library profession. In addition, a comprehensive literature search, using a variety of multidisciplinary resources, will be conducted to provide further evidence on the importance of image in the workplace.

**Results/Conclusions:** This poster will demonstrate how the perception of the librarian is not always positive and how important change is to the advancement and survival of the profession. Using the data from both the survey and literature search, the authors will suggest areas for improvement to enhance the librarian image. There will be a substantial number of librarians retiring in the next couple of years, so these data have the potential to change how we recruit new information professionals, retain current librarians, and market the profession.

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### **Transcending Bibliometrics: Measuring Knowledge Transfer and Clinical Impact**

**Cathy C. Sarli**, Scholarly Communications Specialist, Bernard Becker Medical Library; **Washington University School of Medicine Ocular Hypertension Treatment Study**, Research, Department of Ophthalmology and Visual Sciences; **Susan A. Fowler**, Library Associate, Bernard Becker Medical Library; Washington University, St. Louis, MO

**Objective:** The main objective of this project was to measure the impact of a large randomized clinical trial using three measurement criteria: intellectual impact, knowledge transfer, and clinical impact. Current means of dissemination of the research findings by the clinical trial group were also evaluated to recommend strategies for enhancing research impact.

**Methods:** The initial task for the statistical analysis study was to develop a set of criteria to measure intellectual impact, evidence of knowledge transfer, and evidence of clinical impact. Assessment of intellectual impact factors was performed by measuring citation rates on six core publications as well as all twenty-six publications to date resulting from the clinical trial. Evidence for knowledge transfer focused on two questions: Did the research knowledge generated by the clinical trial allow for knowledge transfer by expansion of research in related areas (ancillary studies) and did it allow for research in previously unexplored areas? Clinical impact evidence focused on clinical/practice guidelines, consensus development conferences, reviews, continuing education modules, creation of codes, insurance coverage statements, and measurement tools. A variety of resources were consulted to gauge translational impact. Strategies for optimizing dissemination were investigated and compared with current dissemination means.

**Conclusions:** Evidence of translational impact was identified in the three criteria used for this study. Three bibliometric measures exceeded average rates. Knowledge transfer resulted in seven ancillary studies and one study in a previously unexplored area. Demonstration of clinical impact was located in seventeen health care and educational applications that incorporated the findings of the clinical trial study. Traditional bibliometric analysis is not sufficient in revealing the full translational impact of research and resulting synthesis into clinical practice. The difficulty is lack of consensus and quantifiable measures that demonstrate translational impact. As a result of this project, an online guide, "Translating the Research," is under development by Becker Library under the aegis of the Translational Research Support division. The guide will include criteria that demonstrate translational impact and resources for locating evidence of such. Strategies to enhance dissemination and impact of clinical as well as basic research will also be included.

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### **CHILL: An Internship Program to Introduce Underrepresented Minority High School Students to Health Sciences Library Careers**

**Charles J. Greenberg**, Coordinator, Curriculum and Research Support, Cushing/Whitney Medical Library, Yale University, New Haven, CT

**Objective:** Statistics indicate that in all health professions, minority populations continue to be underrepresented relative to the overall populations. Existing pipeline projects recruit and prepare underrepresented minority students for health professions by involving them in a

continuum of activities and programs throughout their pre-college experience. Health sciences librarianship faces an identical lack of diversity, and without a formal high school to health sciences information profession pipeline, an even more urgent challenge. What are the best practices for introducing the next generation of underrepresented minority high school students to health information careers?

**Methods:** As a Careers in Health Information, Librarianship, and Informatics (CHILI) partner attempting to establish best practices, the medical library created a short-term (thirty hour) academic internship for local high school students that would emphasize learning and dialogue with professionals, avoiding clerical skills students normally associate with library work. Three high school junior students each spent two weeks interviewing the library staff, then recording a daily entry in a public blog. Students were encouraged to take pictures and use the blog to tell their peers about their experience. Students received an educational stipend, in recognition that the internship might compete with student employment aspirations.

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### **Connecting with the Community: What Is the Value of a Friends of the Library Group?**

**Marie T. Ascher, AHIP**, Head, Reference and Information Services; **Diana J. Cunningham, AHIP**, Associate Dean and Director; Health Sciences Library, New York Medical College–Valhalla

**Objective:** The overall goal of this study is to determine the nature and value of friends of the library groups. Objectives are: to collect information regarding the number of friends groups in health sciences libraries, to identify variables affecting the success of friends groups, to define and measure the value of friends groups' contributions, and to assist in the decision of one library considering the establishment of a friends group.

**Methods:** A questionnaire administered using SurveyMonkey web-based software. Recipients of the questionnaire for the first phase of the study will be all members of the Association of Academic Health Sciences Libraries. The survey will be used to determine how many and which libraries have friends of the library groups, the longevity and size of the groups, their objectives and activities, the types of support and annual contributions, and the purposes for which friends' group funds are used. Nonmonetary value, such as community involvement and support, will also be addressed by the survey. A study of friends of the library groups in health sciences libraries has not been published since Leatherbury and Lyders's study in the July 1978 *Bulletin of Medical Library Association*, nearly three decades ago.

**Results:** Responses were received from 92 academic health sciences libraries (72% response). Sixteen responding libraries report having independent friends groups; 11 additional libraries report having friends groups affiliated with their parent institutions. Of the 16 friends groups, most formed prior to 1980, yet nearly a

third having formed since. The sizes of the groups range from 5 to 500. Monetary contributions to the library vary widely and are mostly used for social events, lecture series, exhibits, and rare books.

**Conclusions:** The results of the survey indicate that while the stated objectives for friends groups remain similar since 1978, there appears to have been an increase in the social functions of friends groups. Friends groups continue to offer financial support to libraries but apparently support the library in other nonmonetary ways as well. In addition, all of the libraries with their own friends groups are open to the public.

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### **Delivering Value Through Innovation: Marketing Initiatives to Become Relevant and Cost Effective Again**

**Gediminas (Geddy) Paulaitis, AHIP**, Director for Access Services and Biomedical Communications, Louis Calder Memorial Library, University of Miami, Miami, FL

**Objective:** To determine ways to transform a failing Biomedical Communications Department into an efficient, cost-effective and successful institution-focused division of an academic medical library.

**Methods:** Over a three-year period, each of the department's services was reevaluated: pricing, promotion, technology, staff, and others. Emphasis was placed on exploration and implementation of ideas for increasing income and on services most beneficial to the school. In addition to successful initiatives, setbacks and challenges were analyzed. When each major service was perfected, as evidenced by customer satisfaction and efficient delivery, it was promoted to the university. In addition to articles in newsletters, brochures, email announcements, and networking, the staff was encouraged to devise new creative techniques. New ideas included participating in the university-wide supplier expo, participating in the art sale/fundraiser for the United Way, and offering free poster creation tutorials, focus groups, and others. Staff was also encouraged to solicit customer feedback and examine existing library resources for possible new services. A major digitization initiative resulted.

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### **Renovations Improve the Look and Functionality of Old Spaces**

**Janis F. Brown, AHIP**, Associate Director, Systems and Information Technology, Norris Medical Library; **William Clintworth**, Director, Health Sciences Libraries; University of Southern California–Los Angeles

**Objective:** Over the past two years, an academic health sciences library has undertaken several renovation projects that have revitalized the library with a more contemporary, high-tech look, more comfortable and functional public areas, and more usable office space.

**Methods:** In 2003, a staff retreat was held to consider new directions for the library. The library staff identified

as a high priority the need to modify the library facility to make it more inviting and responsive to our users' changing needs. In 2005, a survey helped define user preferences for library space. The resulting renovations include an attractive and functional collaborative area, additional small-group rooms equipped with computers with wall-mounted plasma screen monitors, computer stations in a more visible area, and a new office area for the library technology support group. This redesigned space was previously occupied by a little used learning resources center, a cramped office area, and shelves holding infrequently used reference books. Using prefabricated glass walls, each renovation project was completed in about thirty days. Wireless access was also implemented throughout the library during this period.

**Results:** Since renovations began in 2005, the library has seen a more than 15% increase in its gate count. This increase can be attributed, in part, to these physical improvements that have better addressed the needs and comfort of our users.

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### **Building Connections with National Medical Librarians Month**

**Nakia J. Carter, AHIP**, Clinical Reference Librarian; **Rick Wallace, AHIP**, Assistant Director; Quillen College of Medicine Library, East Tennessee State University—Johnson City

**Objective:** To demonstrate the value of the East Tennessee State University Quillen College of Medicine Library to library users using the vehicle of National Medical Librarians Month.

**Methods:** A descriptive analysis of techniques used to enhance the value of the East Tennessee State University Quillen College of Medicine Library in the eyes of its parent organization and users. Interventions undertaken were exposure on television, a barbeque for students, a library exhibit fair patterned after conference exhibits in which all major facets of library services were presented using handouts and posters of the services and accomplishments of their unit, and a reception for faculty and staff.

**Results:** The Quillen College of Medicine Library had a turnout of 300+ to the barbeque. The library exhibits drew interest and comments from faculty, staff, and students. The promotion of National Medical Librarians Month allowed the library workers from all departments to a chance to interact with the patrons and it gave patrons a chance to put a face to the library workers they normally just email.

**Conclusions:** The Quillen College of Medicine Library will try to incorporate into National Medical Librarians Month this year some more instruction aspects, giveaways, and more exhibits.

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### **Bridging the Gap: Translating Research Study Findings into a Community Resource Guide**

**Shelley A. Bader, AHIP**, Information Consultant, HSC Foundation, Washington, DC

**Objective:** The foundation, having supported a study to determine service delivery practices to children with special health and mental care needs in three school districts in two states, wanted to quickly communicate the study's most significant findings to improve service delivery to children with special needs.

**Methods:** The study was independently analyzed to identify key themes and potential audiences. The theme, "There Is Insufficient Collaboration between School-based Professionals with Private Providers of Service to Children with Special Health Care Needs [CSHCN]," echoed the study's finding that there is no discussion on the potential benefit of a single care communicator for CSHCN, noting need for future research to determine if coordinated communication through a central point of contact results in improvements in care. The matrix of themes and audiences pinpointed the potential benefits of encouraging parents to grant schools access to medical history records and grant parental release for school staff to communicate with outside health and mental health professionals. A publication for parents who can build the "medical home" relationships necessary amongst all the health, mental health, educational, and other providers who take care of their child was identified as the best vehicle for communicating this information.

**Results:** A brochure was developed and is available in both English and Spanish. External sponsors helped fund printing of 60,000 copies. The foundation's website has PDF versions available for download, along with the original research study. More than half the printed copies were distributed within forty-five days of release. Links from MedlinePlus and other websites focused on the needs of children with special needs help further dissemination.

**Conclusions:** The brochure was not one of the study's specific recommendations. The study benefited from an independent analysis of findings and audiences. This analysis can lead to identifying specific information needs of the community the research is intended to benefit. Other early stage research studies may have findings that should be communicated. The brochure is a prime example of translating research into action.

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### **South Central Houston Community Health Information Center**

**Jeffrey T. Huber**, Professor, School of Library and Information Studies, Texas Woman's University—Houston; **Beatriz Varman**, Assistant Director for Public Affairs and Information Services Librarian, Information Services, Houston Academy of Medicine—Texas Medical Center Library, Houston, TX; **Stacie Hill**, Site Coordinator, Riverside Clinic; **Anganette S. Young**, Executive Director, Administration; South Central Houston Community Health Center, Houston, TX

**Objective:** The overall objective of this outreach project was to facilitate access to electronic health information for medically underserved individuals by developing an

Internet-connected health information resource supported by an academic/community partnership.

**Methods:** With funds from the National Network of Libraries of Medicine South Central Region, an academic community partnership was developed to support an Internet-connected health information resource center at the community partner facility. The community partner is the city's oldest federally qualified health center and serves primarily medically underserved African Americans. Project funds were used to develop a computer-equipped information resource center at the community partner facility. The project extended a modified version of an information prescription program to the community clinic setting. The project provided training for clinic staff members and clinic clients with the intention that clinic staff members—including health care providers—would refer clients to the information resource center to gain a better understanding of health-related issues. MedlinePlus was promoted as an authoritative consumer health information resource during each training session. Training sessions were conducted in the information resource center. Each session concluded with administration of a post-training evaluation form.

**Results:** Clinic staff members—including health care providers—referred clients to the information resource center to obtain health information and gain a better understanding of their health-related issues. Clients attended training sessions conducted by a health sciences librarian. Training session content ranged from basic computer skills to navigating MedlinePlus and other consumer health websites. Training sessions were well received, and evaluations indicated that clients benefited from attending training sessions. Based on referrals and training sessions, clients used project computers to access electronic consumer health information resources.

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#### Chapter Website Uses Web 2.0 Approaches

**Jeanette de Richemond, AHIP**, Medical Information Specialist and PhD Candidate, TA Information Center and School of Communication, Information and Library Studies, ECRI Institute and Rutgers University, Plymouth Meeting, PA, and New Brunswick, NJ; **Gary Kaplan**, Information Services Librarian; **Dan Kipnis**, Education Services Librarian; Scott Memorial Library, Thomas Jefferson University, Philadelphia, PA; **Nina Long, AHIP**, Director, Library/Curator, Wistar Library, The Wistar Institute, Philadelphia, PA

**Objective:** The objective of a chapter's website redesign was to develop a website that facilitates collaboration and sharing between users. The new website has the potential to improve member communication, to promote the profession and chapter to library school students and other nonmembers, to recruit new members, and to provide education about careers in health sciences librarianship.

**Methods:** Using the open source blogging platform, WordPress, the website committee created a website that allows member participation through a news blog, a

Flickr digital photo-sharing group, a calendar, and web-based, multiple-user web page updating. The webmaster, with the help of the web committee, used WordPress to shift from static HTML web pages to a dynamic site that encourages contributions. Adding a Flickr badge has motivated members to capture images at chapter events to post and share. The project includes a search engine, printer-friendly formatting, "share this" item by email or social network, and flexibility to modify the look, feel, and functionality of the site with WordPress's unique architecture of themes and plug-ins. This project gave many librarians a chance to blog. Members can bring the skills they develop using the chapter website back to their libraries.

**Conclusions:** The chapter website continues to evolve. In recent months, new features have been added including RSS feeds of relevant blogs, and online registration—provided by Acteva.com—for chapter events and membership renewal. Based on user feedback, animations for novices that demonstrate how to register for an account and write a post were developed. To guide future improvements, the chapter conducted an online survey after six months on the new site to determine frequency of site use, content that was most useful to members, and relation to other communications media. Redesigning the chapter website using WordPress has provided a valuable learning experience for the team and delivered a more useful site to the chapter.

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#### Connecting with New Employees: Promoting Consumer Health Resources through New Employee Orientation

**Misty Carney**, Consumer Health and Outreach Librarian, Bernard Becker Medical Library, School of Medicine, Washington University, St. Louis, MO

**Objective:** To increase new employee awareness and use of the library as a resource for personal health questions.

**Methods:** Although the primary focus of the Bernard Becker Medical Library has been to provide information resources and services for faculty, staff, and students in support of education, research, and patient care, the personal health information needs of employees cannot be overlooked. One of the benefits of working on a medical campus is convenient access to high-quality health information and trained medical librarians; however, the library has been underutilized by employees for personal health questions. To reach new employees from all departments, the library has arranged with human resources to include a consumer health presentation during the weekly new employee orientation. While emphasizing that the library is open to all employees for both work and personal health questions, the presentation covers the availability of online consumer health resources and a consumer health librarian for consultation.

**Results:** After presenting at the new employee orientation for 2 months, reaching an average of 23 employees per orientation, visits to the consumer health page increased by 74%.

**Conclusions:** The initial results are promising in regard to increasing employee awareness and use of online consumer health resources. However, there has not been an increase in requests for librarian assistance with consumer health questions. Based on these results, the library will continue to participate in new employee orientation but will also seek to strengthen and expand our collaboration with human resources in order to reach current as well as new employees and to reinforce awareness of consumer health resources and services.

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### **Consumer Health Outreach for Special Populations: Targeting the Senior Citizen Demographic**

**Deborah Chiarella**, Assistant Librarian, Reference and Education, Health Sciences Library, University at Buffalo, Buffalo, NY; **Lauren Olewnik**, Librarian, Calvin Coolidge Library, Castleton State College, Castleton, VT

**Objective:** Finding and evaluating quality health care information can pose a variety of difficulties for the consumer. Those that belong to special populations face unique problems in the execution of this task. This poster chronicles the creation and implementation of a consumer health outreach program intended to aid area senior citizens in this undertaking.

**Methods:** An examination of the current literature was conducted to discover the most common information needs of the target population as well as an examination of the region to determine venue locations that would reach the greatest number of senior citizens. Because this program was initially intended as a project to satisfy requirements for the completion of the author's master's of library science, it had to be designed to work with free Web 2.0 technologies due to the flat operating budget. The program was planned in three components; (1) a presentation component that could be executed in lecture/demonstration style or a hands-on demonstration if the technology was available, (2) a wiki organized by topic highlighting resources covered in class, and (3) a web page that participants could reference to reinforce concepts covered in class.

**Results:** The program was piloted to a group of sixteen participants at a public library in Tillsonburg, Canada. The program had to be presented lecture/demonstration style as the library did not have a computer classroom. The author's provided a short survey consisting of twelve questions to participants following the program. The survey covered education background, comfort using the Internet, how and where participants obtain health information, and comments regarding the quality and presentation of information discussed. Fourteen of the participants had secondary education or better and were comfortable using the Internet but still received the bulk of their health information from friends and their physician. Attendees liked the easy navigation of the web page and wiki as well as the supplemental materials created for the class. The survey results showed that the program was a success in that all attendees indicated they learned new

information regarding sources of quality health information.

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### **Assessing Health Information Needs of Patients and Families in an Adult Outpatient Clinic**

**Tracy E. Powell**, AHIP, Clinical Services Librarian; **Lee Vucovich**, AHIP, Assistant Director for Reference Services; Lister Hill Library, University of Alabama—Birmingham

**Objective:** To determine the information needs and the types of resources preferred by a diverse population of patients and families in a busy adult interdisciplinary outpatient clinic.

**Methods:** This study includes patients and family members requesting information from professional librarians in a new state-of-the-art patient resource library located in a large urban outpatient clinic at University of Alabama—Birmingham during the first 15 months of the library's operation. The Kirklin Clinic houses over 700 doctors and covers 35 specialties. Library circulation and usage statistics and a database of information gathered from detailed patron request forms were analyzed. Over 2,000 information requests for 6,000+ visitors were recorded in the library's first 15 months of operation. Individual questions were categorized using Medical Subject Headings (MeSH) terminology. Information on the most common diagnoses in the clinic was gathered for comparison.

**Conclusions:** Mapping patient information requests to broad MeSH categories allowed standardization and aggregation for analysis and will serve as a useful guide for future collection development. Information derived from the more specific headings showed the wide variety of individual needs in the study group. This analysis also demonstrated a strong reliance on librarian-selected online sources as opposed to print materials. Information needs identified in this patient population were so varied that a wide variety of resources were necessary to meet them. Materials routinely used ranged from basic low literacy printed pamphlets through the professional biomedical literature including both online journals and books. The services of professional medical librarians and the scope of resources available through the Lister Hill Library were necessary to adequately meet all these identified needs.

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### **Developing Connections Between an Academic Library and a Multidisciplinary Health Sciences Community**

**Remlee Green**, Librarian; **Courtney D. Crummett**, Visiting NLM Associate Fellow; **Tracy Gabridge**, Associate Head for Engineering; Engineering and Science Libraries, Massachusetts Institute of Technology—Cambridge

**Objective:** Develop and pilot an outreach plan directed at a complex, academic, multidisciplinary health sciences user community—the Harvard-Massachusetts Institute of Technology (MIT) Division of Health Sciences and Technology (HST)—to determine how to best serve the needs

of the department, to better advocate for the users in the library system, and to highlight the value of the libraries to the department.

**Methods:** Using a marketing approach, the authors seek to create lasting service relationships with HST. By systematically studying the needs and information research practices of this cross-institutional, multidisciplinary research community, the MIT Libraries can better target awareness needs and create and improve information services for the community. We will gather in-depth knowledge of the user community via several methods, including gathering existing data, convening focus groups, and conducting in-depth interviews, and perhaps some ethnographic studies of research practices. By understanding research activities and how researchers interact with information tools, we will target specific needs and create outreach and promotion activities based on our findings. Effective methods and learned lessons in this highly interdisciplinary group will be informative for other liaison librarians with similarly interconnected communities.

**Results:** Researching the community's publication practices via publication analysis for the last five years has uncovered specific user needs for future outreach activity planning and has revealed the key HST faculty members involved with scholarly communication, as well as relevant journals for publication. Investigating opportunities for outreach with HST has led to the development of many activities, including participation in a seminar series, an introductory meeting with HST administration, and an invitation to present at an HST staff meeting. Plans to inform the community about scholarly communication issues in faculty and graduate student meetings are in progress.

**Conclusions:** Using a systematic approach to develop and pilot an outreach plan provides a clear guide for learning about users' needs and for planning services that meet those needs. Having defined landmarks supplies focus for time management and resource planning, while uncovering new opportunities for outreach.

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#### **Live Well at the Library: Mayo Clinic Arizona Boosts Health and Wellness for Employees**

**Carol Ann Attwood, AHIP**, Medical Librarian, Patient and Health Education Library; **Kay E. Wellik, AHIP**, Director, Library Services; Mayo Clinic, Scottsdale, AZ

**Objective:** Realizing the importance of a healthy workforce and the need to provide reliable, up-to-date, and relevant health care information to employees, the patient and health education library sponsored a week-long open house, in conjunction with the 10th anniversary of the library, to promote circulation of the collection and utilization of other library resources to employees in the organization.

**Methods:** Collaborating with the organization's live well task force, the library worked to market services among the employees across a geographically diverse campus. Building bridges and collaboration with a wide variety of groups in the organization, a concrete plan evolved

to share the holdings and services of the library in a variety of innovative ways. Included were linkages with the organization's volunteers, food service area, educators, the American Cancer Society navigator, public affairs, department chairs, nursing and allied health groups, registration, and desk area personnel. A brief survey will be administered to randomly selected employees in the next several months to determine if the library promotion has been instrumental in helping them make decisions to "live well." These results will be reported in the poster presentation.

**Results:** Focusing on the needs of the patient and in our case, the health of our most important asset, the employees, allowed the patient and health education library to engage the employees as "patrons" of the library and to build the library's collection to meet the needs of employees across the life span. An informed and healthy workforce is vital to the success of our institution. With enhanced visibility of the patient and health education library and its resources to the employees, they have become partners in promoting the library to our patients and their families.

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#### **Community Connections through Collaboration: Social Workers and Health Sciences Librarians**

**Anna L. Tatro**, Liaison and Outreach Services Librarian; **Paula Raimondo, AHIP**, Liaison and Outreach Services Librarian; Health Sciences and Human Services Library, University of Maryland–Baltimore

**Program Objective:** This poster will report on the efficacy of collaboration between social workers and health sciences librarians in providing health information outreach to underserved populations.

**Setting:** A large, academic outreach service and health sciences library have connected social workers and librarians to improve health information outreach activities to underserved populations in a metropolitan area.

**Method:** Through the social workers preexisting relationships with underserved communities they had already assessed and identified a need for health information outreach. As a result, a partnership was created between the social workers and the health sciences librarians, and grant funding for a special project was secured. Since funding began in January 2007, the 2 organizations have worked together to provide health information outreach through train-the-trainer sessions with high school students, health care providers, senior citizens, local Latino groups, and a variety of other local communities reaching over 1,000 participants. Evaluation methods included paper evaluations, web statistics, and discussion groups with service providers and the community.

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#### **Getting Personal: Librarians Connecting with Patients and Providers through Personal Health Records**

**Dixie A. Jones, AHIP**, Librarian, Medical Library, Overton Brooks VA Medical Center, Shreveport, LA;

**Michael J. Ackerman**, Assistant Director, Office of High Performance Computing and Communication, National Library of Medicine, Bethesda, MD; **Joan Ash**, Associate Professor and Vice Chair, Department of Medical Informatics and Clinical Epidemiology, School of Medicine, Oregon Health & Sciences University–Portland; **Patti Corbett-Bregman**, Vice President, Clinical Solutions, Wolters Kluwer, Madison, CT; **Taneya Koonce**, Assistant Director, Eskind Biomedical Library, Vanderbilt University Medical Center, Nashville, TN; **Daphne Plaut, AHIP**, Research Librarian, Center for Health Research, Kaiser Permanente, Portland, OR; **Catherine R. Selden**, Librarian, National Information Center on Health Services Research and Health Care Technology, National Library of Medicine, Bethesda, MD; **David Sweet**, Director, Library Services, FORE Library, American Health Information Management Association, Chicago, IL; **Carla J. Funk, CAE**, Executive Director, Medical Library Association, Chicago, IL; **Jean P. Shipman, AHIP**, Director, Tompkins-McCaw Library for the Health Sciences, and Associate University Librarian, VCU Libraries, Virginia Commonwealth University–Richmond

**Objectives:** To determine the key players and providers of electronic personal health records (PHRs); to create an inventory of quality web-based health information resources for PHR developers to include in their record templates, especially those resources offered by the National Library of Medicine (NLM); and to define what assistance medical librarians can offer PHR users and how they can be easily contacted.

**Methods:** Electronic PHRs are being developed and promoted to encourage individuals to record their health histories with the goals of enhancing the quality of health care and reducing associated costs. MLA and NLM have jointly charged a task force with reviewing the current state-of-the-art for PHRs, with a main focus on examining how linkages to high-quality health information and medical librarians can be provided in these records. This poster outlines the work of the task force, including the charge of the group, its working definition of PHRs, its development of a database to inventory PHR products, and its identification of health information resources used in PHRs, as well as its conclusions on how librarians can be involved.

**Results:** The task force identified approximately ninety PHR vendors with currently available products and critiqued the PHR characteristics. They created an assistance statement to link consumers to quality health information resources as well as to medical librarians. Likely candidates for collaboration have been identified among the key PHR vendors; they have been approached regarding their willingness to partner with MLA and NLM by including this statement in their PHRs. The task force also surveyed librarians regarding their developing roles with PHRs.

**Conclusions:** Electronic PHRs are proliferating at varying levels of sophistication and medical librarians can indeed provide personal assistance to PHR users. As a follow-up activity, the task force is conducting an awareness campaign to educate librarians about their potential for establishing a role for themselves in this rapidly developing aspect of customized health care information provision.

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#### **The Impact of Public Library Outreach Programs on the Use of Health-E Illinois, a Go Local Project**

**Mary J. Klatt**, Associate Director; **Logan Ludwig, AHIP**, Associate Dean; Health Sciences Library, Loyola University, Maywood, IL

**Objective:** To increase the use of Health-E Illinois, a Go Local Project, by public librarians in Illinois.

#### **Methods:**

- Setting: various public libraries and library systems in the state of Illinois
- Population: public library staff
- Description of Program: A two-hour class, “Beyond an Apple a Day,” was presented to various groups of public library staff either in their libraries or at the library system headquarters. This class covered both consumer health resources and the Health-E Illinois database. Each month, the National Library of Medicine provides a statistical breakdown of Go Local project usage. One section of this report lists usage by Internet domain. Monthly statistics for those domains whose library staff participated in the outreach classes were compared to neighboring libraries’ domains where classes were not held.

**Results:** Use of Health-E Illinois was statistically larger by libraries where an outreach session was held than the use by neighboring libraries who received Health-E Illinois brochures but no formal training sessions.

**Conclusion:** This study showed that actively promoting a Go Local project using outreach classes significantly increases the use of the database in libraries where classes were held. Face to face outreach programs significantly increases the use of a Go Local database in comparison to print publicity for the project.

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#### **Expansion of Consumer Health Information Provision to Pediatric Patients via a Secure, Web-based Patient Portal**

**Julie Beauregard**, Librarian; **Taneya Koonce**, Assistant Director; **Nunzia B. Giuse, AHIP, FMLA**, Director; Eskind Biomedical Library; **Jim Jirjis**, Chief Medical Information Officer, and Director, Adult Primary Care Center; Vanderbilt University Medical Center, Nashville, TN

**Objective:** To describe the library’s efforts providing patient-level health information to a pediatric population and their parents/guardians via an interactive, secure, web-based patient portal containing select portions of the medical record and value-added health-related content.

**Methods:** Since 2003, the library has collaborated in an institutional multidisciplinary team that provides an

interactive portal for medical center patients. In addition to allowing patients to view laboratory test results and billing/appointment information, the portal includes consumer-level authoritative health information. The relevant information is selected by library staff and dynamically targeted to specific patient conditions by International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) codes and patient demographic characteristics. Beginning in the summer of 2007, access to the portal was opened to the pediatric population (17 years or younger), and, as dictated by legal regulations and hospital policies, their parents and guardians. Leveraging the library's existing model of incorporating health information for adults, the expansion of health topics to pediatric patients provides opportunities to better understand information use patterns for youth-focused resources.

**Results:** The selection of pediatric disease topics and preventive health measures for inclusion in the portal is primarily based on clinical team suggestions and incidence of diseases and conditions seen at the institution as determined by ICD9 code billing data. The library revises topics regularly and to further personalize content, on-line health information written specifically for a pediatric audience is represented in the selected resources.

**Conclusions:** Given the value of fostering participatory health care from an early age, the library will continue to add educational, consumer-level information for pediatric patients. Development focus will continue to be on selecting resources that target a younger population to encourage a greater understanding of health conditions, including management and prevention strategies. As this tool is further implemented in additional pediatric clinics, the library will continue its outreach efforts to improve and refine the service.

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#### **Information Rx as Patient-Physician Communication Tool and Community Health Information Program**

**Marianne Burke, AHIP**, Director, Dana Medical Library; **Peggy Carey**, Assistant Professor, Family Medicine; **Frederick Pond**, Biomedical Librarian; **Laura Haines**, Assistant Library Professor; Dana Medical Library; University of Vermont, Burlington, VT; **Alan Lampson**, Coordinator, Community Health Improvement, Fletcher Allen Health Care, Burlington, VT

**Objective:** The study describes a collaborative project to (1) integrate the Information Rx program as developed by the National Library of Medicine (NLM) and the American College of Physicians (ACP) Foundation into a community-based medical practice and (2) develop the capacity of the nearby public library to provide health information services and specifically to follow up on information prescriptions.

**Methods:** The target population at the medical site includes physicians, residents, nurses, and mental health clinicians. The population at the public library includes

librarians, staff, and volunteers. Methods include promotion of Information Rx and MedlinePlus at physician, resident, and nursing staff meetings and individual consultations; educational sessions conducted by project staff at the medical practice and the library; and distribution and display of informational materials on MedlinePlus and Information Rx at both sites. A pre-intervention survey was distributed to ascertain providers' awareness and use of consumer-oriented health information including MedlinePlus and the Information Rx. An information provider survey was conducted at the nearby public library. Post interventions surveys are planned. Additional methods include promotion of the program to primary care practices in the area and the community at large.

**Conclusions:** Most providers professed proficiency at using the Internet to find information for patients, but others demurred based on uncertainty of best websites or lack of ready computer access. Collaboration with the practice manager on office protocols moved the project forward. The installation of workstations for patients and providers dedicated to evidence-based Internet resources was a positive incentive for participation. A post-project survey May 2008 will show how knowledge, awareness, and participation have changed. The public library staff received training on MedlinePlus and is aware that patients may come to them for help. The Information Rx program, described by NLM and ACP Foundation is an effective, practical methodology, but, for many providers, institutional practices or policies need to be considered before it is accepted and used. The public library may improve its effectiveness as a health information provider through staff training and program development.

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#### **Bridging the Americas: Development of a Spanish Language Portal and Service Network for Health Care Providers in Latin America**

**Yanira García-Bárcena**, Senior Reference Librarian; **Joaquín Arriaga**, Director for Reference and Education Services; **Suzetta Burrows, AHIP**, Director for Library Operations; **Mary Moore**, Executive Director, Louis Calder Memorial Library, University of Miami Miller School of Medicine, Miami, FL

**Objective:** To create a web portal of high-quality, Spanish language, knowledge-based resources and a service program for library services to support the clinical, research, and educational needs of Latin American health professionals participating in an international cooperation initiative between our academic institution and Latin American hospitals.

**Methods:** Two native Spanish-speaking, experienced librarians in the reference and education services department undertook a search for existing portals and service programs to meet the needs of this new institutional initiative. None was identified. They then began compiling a list of resources. With the participation and guidance of these librarians, eight Spanish-speaking in-house paraprofessionals combed through 100 print publications, emails, email lists, and search engines to identify possible

websites. They established evaluative guidelines as to relevance and provenance and used bibliographic authorities to dispel questions of technology, Spanish grammar, and style. The retrieval was examined by the librarians, tested, broadly classified, organized for usability, and added to the portal's armature. An existing service program, in place for community-based hospitals, was adapted for the Latin American market. Early on, informal, valuable feedback from Spanish-speaking physicians and staff members was obtained.

**Results:** Nearly 100 Spanish and English resources were identified, and 70 were evaluated, judged suitable, and included. More than half of the resources feature high-quality Spanish language sites. The portal has been operational ([www.calder.med.miami.edu/sitiosmedicos.html](http://www.calder.med.miami.edu/sitiosmedicos.html)) since November 2007. Upon presentation to the program leaders and to visiting Latin American physicians, very positive feedback was generated. They are enthusiastic about its ongoing nature and continue to provide suggestions and feedback. Future plans include maintenance and updating as well as usability testing for specific international clients.

**Conclusions:** This service brings together Spanish resources that were previously available on the web but were difficult to locate. The use of the A-Z list for unified searches on free resources was of particular value to this audience. Consequently, the same technique can be used to consolidate access to free journals for English-speaking health care providers who do not have access to paid subscriptions.

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##### **Using National Network of Libraries of Medicine Resources to Train Staff and Teach Students at a Residential Treatment Center**

**Dennis A. Pernotto**, Head IAIMS/Program Evaluation; **Dawn M. Parker**, Head Access Services; **Marianne Comegys**, Chair, Department of Medical Library Science; Health Sciences Library, Louisiana State University Health Sciences Center—Shreveport

**Objective:** Targeting a traditionally “closeted” population to use the National Library of Medicine (NLM’s) resources to access valid and reliable electronic health information for use in educational programs to effectively treat adolescents at a residential treatment center who have either a primary diagnosis of addictive disease or dual-diagnosis of addiction and psychiatric illness and successfully return them as functional, responsible members of their families and communities.

**Methods:** This project had five components. First, the facility did not have a public Internet access. This was provided through an Information Access Improvement Project Award. Small group sessions assured optimal hands-on practice. Second, the faculty and staff were trained by library personnel in NLM searching techniques. A train-the-trainer approach was employed so that on-going training is assured for both faculty and students. Third, a variety of NLM databases and the library’s website are used for local, state, and national resources.

Fourth, instruction on developing presentation packages was given. Special practice centered on using information that could be incorporated from the Internet. Fifth, assessment was a major component. Faculty and students were rated on their searching techniques. Faculty judged students on presentation skills. Library instructors were evaluated, and statistics were retained on usage statistics. **Results:** Five major accomplishments were realized by this project. First, Internet access was provided. Second, library staff trained the faculty of the center. By using a train-the-trainer approach, continuous training is guaranteed. Third, a variety of databases were used (NLM as well as a local-regional database previously developed with a National Network of Libraries of Medicine grant, HealthE-Links.) Fourth, presentation techniques were taught to both faculty and students. Finally, the entire project was evaluated. By using a portable teaching laboratory that was developed on a previous grant (“Wireless Lab to Teach Public Employees”), hands-on training greatly facilitated this teaching experience.

**Conclusions:** The project was successful both for the library and the center’s faculty and students. The library found a new outlet for NLM products and services that had not been exposed previously to these resources. The center found a valuable resource to use in the future. Other such venues are being explored.

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##### **Development, Dissemination, and Utilization of Public Health Systems Research Resources**

**Rick A. Brewer**, Assistant Director, Research and Education Division, Medical Center Library; **F. Douglas Scutchfield**, Professor of Health Services Research and Policy; **Rick C. Ingram**, Graduate Research Assistant, College of Public Health; University of Kentucky, Lexington, KY

**Objective:** Disseminate information about the Public Health Systems Research (PHSR) subset of the Health Services/Sciences Research Resources (HSRR) database maintained by the National Library of Medicine (NLM) and facilitate utilization of this resource by PHSR researchers.

**Methods:** The college of public health (CPH) embarked on a project to collect and disseminate data resources to public health researchers by developing a PHSR subset of the HSRR database. A medical librarian partnered with CPH to expand access to and utilization of a public repository for PHSR-related data. Project funding is provided by the Robert Wood Johnson Foundation and NLM. A survey will be conducted to determine awareness, utilization, and value of the PHSR subset. The librarian will determine appropriate Medical Subject Headings (MeSH) terms, keywords, and search strategies that identify content for inclusion in the HSRR database. Using the PubMed My NCBI feature, an alert will be created to track the literature for possible data sets. Increasing the awareness of the existence of PHSR resources is the optimal goal of the project. In an effort to engage PHSR researchers in using these available resources, a mini-grant

program and an annual meeting will be supported to showcase the work of public health systems researchers.

**Results:** One hundred thirty-three survey instruments have been tagged PHSR within the HSRR database; 121 originated from the HSRR database while 12 were identified by literature review and collaboration with leading public health (PH) organizations. The majority of datasets tagged PHSR met criteria for multiple areas, the most common being access to and utilization of public health services and systems assessment and evaluation. Approximately 100% of the funded mini-grant proposals utilized 12 datasets that were newly identified.

**Conclusions:** The PHSR subset is vital for the growth and development of the discipline. Increasing access to and awareness of PHSR resources should be an important part of the agenda for future development of the field. The PHSR subset of the HSRR database strengthens the capacity to conduct PH systems research. The addition of PHSR specific datasets has increased activity in the field and highlights the need for maintenance and further identification of PHSR instruments.

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#### **Are We Meeting Our Customers' Needs? Evaluation of Information Desk Services and Staffing**

**Alicia A. Livinski**, Biomedical Librarian; **Brian Brown**, Biomedical Librarian; NIH Library, National Institutes of Health, Bethesda, MD

**Objective:** A federal government library, which supports clinical and scientific research, conducted surveys to evaluate customer satisfaction and internal business processes after changes were made to information desk staffing patterns. In January 2005, the library modified its information desk staffing to increase reliance on paraprofessional staff eliminating the need for librarians to sit at the information desk and reducing their involvement to the status of "on call" librarian.

**Methods:** Separate survey instruments were developed to measure customer satisfaction and the efficiency of staffing the information desk with "on call" librarians. After completing a transaction, in-person visitors were asked to complete a customer satisfaction survey during the month of February in 2006, 2007, and 2008. The survey assessed six specific service aspects—courteousness, timeliness, understanding of the question, accuracy, and completeness—and assessed overall satisfaction. During the first full week of odd-numbered months (March to November 2007), the "on call" librarian staffing pattern was assessed. Each librarian called out to the desk completed a ten-question online survey, which included: name, date, time, method of contact, time spent with user, type of question, question asked, length of time, nature of follow-up, and need for a librarian.

**Results:** Thirty-nine respondents completed the 2007 customer satisfaction survey of which 85% were institutional staff. Service received in person was rated excellent by 85% of respondents, and 94% of institutional staff. For the 5 specific service aspects, all were rated outstanding

at 96%. The overall service scores were slightly higher for the 2006 survey than for the 2007 survey. Preliminary results for 2008 indicate a continued level of high customer satisfaction with information desk services, although data collection and analysis were not yet complete at deadline. **Conclusions:** The "on call" librarian survey results reaffirm that the restructured information desk is meeting the user needs for librarian services. In over 90% of referred questions, librarian expertise was required. Nearly 2/3 of user questions were in person requests and 1/3 required some type of follow up. Questions referred to librarians are received throughout the day, 5 days a week.

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#### **Tags: How Do Users Describe Their Information?**

**Michelle Frisque**, Head, Information Systems, Galter Health Sciences Library, Northwestern University, Chicago, IL

**Objective:** This poster will examine how users tag medical articles in research-oriented social bookmarking tools such as CiteULike and Connotea.

**Methods:** Randomly selected articles from up to three journals from a particular medical specialty will be examined. The articles that are selected must be tagged by at least four unique users in each social bookmarking tool being investigated. The articles must be indexed in PubMed and have a publication date prior to July 2007. The tags and username for the selected articles that meet the above specification will be gathered and analyzed to determine how users describe the articles they gather. The user-generated terms will also be compared to the Medical Subject Headings descriptors for the selected articles to see if there is any overlap between user created and assigned descriptors for each article.

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#### **Using RefShare to Complement Resource Guides**

**Irene M. Lubker**, Research Librarian; **Margaret E. Henderson**, Research Services Librarian; Research and Education Services, Virginia Commonwealth University–Richmond

**Objective:** Our library provides resource guides in many subject areas to help guide patrons to library and web resources on their topic. We explored various Web 2.0 tools that allow more interaction, search, and download capabilities. Would library users benefit from using bibliographies in RefShare more than using library resource guides?

**Methods:** We first collected resources in neurosciences and put them in a RefShare folder available to all university users\* and a neurosciences resource guide. We then looked at statistics to compare usage between the resource guide and the Neurosciences Bibliography in RefShare. Currently, we are looking at a second resource guide, health disparities, which has an added RefShare bibliography.

**Results:** Since March 1, 2007, we have had 3,328 hits on the neurosciences bibliography in the RefShare account and only 473 hits on the resource guide.

**Conclusions:** The resource guide showed good usage, but the RefShare bibliography had a lot more use, as seen in the results, showing that it is a good complementary tool. \* Our library provides RefWorks/RefShare free to all university members and supports its use.

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### Connecting with Remote Patrons Using 2.0 Widget and Knowledgebase

**Ryan Harris**, Reference and Research Services Librarian; **Tierney Lyons**, Head of Reference and Research Services; Health Sciences and Human Services Library, University of Maryland–Baltimore

**Objective:** Reference staff implemented Meebo and MediaWiki, both free web-based software, to create a virtual reference chat service for patrons and to improve communication among reference staff during building renovations. Meebo is an instant messaging (IM) service that facilitates chat between various IM services. MediaWiki is software for creating, editing, and linking web pages.

**Methods:** The reference department created an IM account using Meebo. When patrons access the Library's Ask Us page, they send queries via our Meebo Me widget embedded in our website or Facebook page. The widget allows for chatting without subscribing to IM service. A staff member is logged onto the department's Meebo account during reference hours. We developed a knowledgebase of ready reference questions accessible online through MediaWiki. These frequently asked questions guide patrons using resources or services and are easily shared in the chat session. Staff members also created individual Meebo accounts establishing faster communication among library staff. The poster also discusses training and staffing for delivering this expanded reference service.

**Results:** Reference staff was exposed to new technology; some chatting for the first time. By building skill sets, we expanded service to thirty computers on upper floors and to remote patrons. Our staffing model was a blend of on and off desk coverage, adjusting hours to coincide with busy periods.

**Conclusions:** The knowledgebase helped us to respond quickly and thoroughly to directional and informational transactions. The wiki is also used for training new staff and answering email and in-person questions. Fifty-seven percent of questions were informational; directional and instructional questions each represented 18% of total; and 7% were research. Compared with fiscal year 2007 questions received by all contact types (in-person, phone, and email), we received more chat directional questions and fewer informational and instructional questions. Communication between reference staff and liaison librarians improved. We continue to use Meebo and build the wiki knowledgebase to facilitate communication between library staff and patrons.

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### Extreme Makeover: Swapping Book Stacks for Flat Screen TVs

**Felicia Yeh**, Assistant Director for Collections Management; **Rozalynd Anderson**, Assistant Director for Education and Outreach; **Ruth A. Riley, AHIP**, Director of Library Services; School of Medicine Library, University of South Carolina–Columbia  
**Objective:** To describe the planning and implementation of an information commons in a small academic health sciences library.

**Methods: Setting:** The University of South Carolina School of Medicine Library is a small medical library in a community-based medical school with an approximate class size of 85 students. The entire library is available to students and faculty 24 hours a day, 7 days a week, and includes seating for 187 users, 10 public workstations, and a wireless network.

**Project:** The library's strategic plan includes a goal to provide a library atmosphere for students, faculty, and staff that is inviting, comfortable, and functional and encourages community and collaboration. An objective was to redesign the first floor to create an information commons—a communal space with a coffee shop, workstations, soft seating, laptop-ready chairs and tables, flat screen televisions, and current journals reading area.

**Results:** After weeding and shifting the book collection, shelving was relocated to accommodate the information commons area. Four 40" flat panel LCD displays were installed on a wall and configured with high-definition satellite television signals. Soft seating, laptop-ready chairs, wooden magazine spinners with current journals, and a newspaper rack were also added. Planning for a coffee shop was suspended when the adjacent hospital cafeteria announced the opening of a Starbucks.

**Conclusion:** All school of medicine students, faculty, and staff were invited to participate in a web-based survey about desired TV channels. Feedback about the information commons will be solicited from library users via the library committee and class presidents on an ongoing basis.

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### Bridging the Dissemination Gap: Communicating Nursing and Allied Health Resources Section Research to the Nursing and Allied Health Professions

**Margaret (Peg) Allen, AHIP**, Consultant, Peg Allen, Library Consultant, Stratford, WI; **Melody M. Allison**, Assistant Biology Librarian, Biology Library, University of Illinois–Urbana-Champaign, Urbana, IL; **Frances A. Delwiche**, Reference Librarian, Dana Medical Library, University of Vermont, Burlington, VT; **Susan K. Jacobs, AHIP**, Health Sciences Librarian, Elmer Holmes Bobst Library, New York University–New York; **Pamela Sherwill-Navarro, AHIP**, College of Nursing Librarian, Health Science Center Libraries, University of Florida–Stratford; **Mary K. Taylor, AHIP**, Medical and Distance Learning Librarian, Morris Library, Southern Illinois University–Carbondale

**Objective:** Moving beyond conducting research projects, one objective for the Nursing and Allied Health Resources

Section (NAHRS) Research Committee is to communicate our research to the nursing and allied health professions. This includes seizing opportunities and developing messages that discuss the implications for nursing and allied health professionals.

**Methods:** Case study of connecting with International Academy of Nurse Editors (INANE) to support their campaign to include more nursing journals in the Web of Science, followed by presentation of paper on citation analysis, mapping research, and ranking journals at the INANE 2007 conference. Current efforts to disseminate NAHRS research will be featured, along with strategies used for effective communication. These include use of humor and graphics in presentations, along with social networking tools such as email lists and blogs.

**Conclusions:** Interagency Council on Information Resources in Nursing (ICIRN) collaboration continues, including the 2007 “Essential Nursing References.” We promote library-friendly publication practices on the INANE mailing list and contribute to nursing lists. The “Librarians as Key Members of the Magnet Team” poster at the Florida Magnet Research Conference in February 2008 presented our Magnet coordinator survey research to nurses involved in the Magnet certification process. Allied health mapping authors continue to present at conferences and publish related articles in allied health journals. Posters often open the door for invitations to present or write in clinical journals. For example, one on the athletic training mapping study provided an “incredible networking opportunity in which we were able to meet the professionals on their own turf.” The January 2008 “FOCUS: Information Literacy” series in *Clinical Laboratory Science* (journal) includes questions that can be used to earn continuing education credit. Links to these activities and others are posted on the NAHRS website.

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### Trends in Health Sciences Library and Information Science Research

**Mary E. Piorun, AHIP**, Associate Director; **Sally Gore**, Librarian; **Judith Nordberg**, Librarian; **Lisa Palmer**, Librarian; Lamar Soutter Library, University of Massachusetts Medical School–Worcester

**Objective:** Determine if the profession of health librarianship has matured over recent years as defined by the level of sophistication found in the published research in the leading peer-reviewed, professional journal.

**Method:** A content analysis of research articles published in the *Bulletin of the Medical Library Association* and *Journal of the Medical Library Association* during the time span of 1991–2007 will be performed. For those articles that are classified as research, the subjects, research methodologies, and analytical techniques employed will be identified, as well as bibliometric characteristics, institutional affiliation, and research funding source. The data will be analyzed using descriptive and quantitative inferential statistics to identify trends and/or gaps in the literature. The subject, research method, and analytical classifica-

tion schema used throughout the study will be based on the work of Alexandra Dimitroff.

**Results and Conclusion:** Preliminary findings reflect articles published from 1991–1996 (n=10). Forty-six percent of the articles reviewed were defined as research. The most predominant research methodology employed was survey (47%) and the most prevalent techniques used to analyze findings were quantitative descriptive statistics (62%). Studies examining subjects related to library users accounted for the greatest number of published research articles (20%), followed in popularity by public services (15%) and materials and/or collection development (9%). Sixty-five percent of articles were authored by individuals affiliated with an academic health sciences library. The majority of studies (65%) stated no funding source, while 17% reported government support for the research carried out. New areas of research observed to date include consumer health, outreach, and the Internet; an emerging research method is focus groups. Additional data on the findings will be presented in May.

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### Are They Benefiting? Developing Country Authors Research Productivity in the Tropical Diseases Literature

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

**Objective:** This poster aims to assess the representation and research productivity in the biomedical literature of developing world countries in the field of infectious diseases, specifically tropical diseases.

**Methods:** In a retrospective analysis using PubMed, Scopus, and Web of Science research articles on seven neglected tropical diseases (lymphatic filariasis, onchocerciasis, schistosomiasis, ascariasis, hookworm diseases, trichuriasis, and trachoma) were retrieved from fifteen journals included in the “infectious disease,” “tropical medicine,” and “parasitology” categories of the 2006 Journal Citation Reports database of the Thomson Corporation for the period 1995 to 2007. Five journals from each category with the highest impact factors were included in the final search strategy. Countries were classified by high, medium, and low human development indexes. Research productivity for each country was estimated by using: (1) total number of publications, (2) mean impact factor of all publications by country, and (3) the product of the two above parameters.

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### Academic Health Sciences Library Support for Research Studies and Clinical Trials

**Fern M. Cheek, AHIP**, Research Librarian/Assistant Professor; **Pamela S. Bradigan**, Associate Director/Associate Professor; Prior Health Sciences Library, Ohio State University–Columbus

**Objective:** This poster highlights and explores how academic health sciences libraries in the United States and Canada provide support to biomedical researchers and/or clinical trials.

**Methods:** Academic health sciences libraries were contacted and asked to complete a web-based survey with questions on how the library provides support to biomedical researchers or those involved in clinical trials. Initial contact was made by letter with follow up to help improve survey response rate. The presenters developed and designed the survey with statistical consultants who are experienced in survey research. The survey looks at all aspects of library support to researchers including staffing, services, and collections.

**Conclusions:** Emerging trends and highlights reveal that the majority of libraries support clinical research. There are similarities on how the support is provided. Document delivery, knowledge/information management, education, and librarians on institutional review boards are the most prominent methods of providing research support. Data shows that several librarian skills are most often used when serving researchers. These include expert searching, communication strengths and knowledge of the research role. Most institutions provide services to researchers as a part of their missions, while others devote additional "targeted" resources. In the future, new developments such as the National Institutes of Health public access policy may further impact services health sciences libraries provide to biomedical researcher

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#### **Biology in Silico: Creation of an Online Bioinformatics Portal for Researchers, Clinicians, and Students**

**Carrie L. Iwema**, Information Specialist in Molecular Biology; **John LaDue**, Lead Developer; **Fran Yarger**, Assistant Director for Computing and Systems; **Ansuman Chattopadhyay**, Head, Molecular Biology Information Service; Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

**Purpose:** Scientists are inundated with an increasingly vast array of options for data manipulation, resulting in confusion about selecting the most appropriate resources. To help users connect to this information, we developed an online portal that promotes access to the many resources and services geared toward researchers using bioinformatics and molecular/systems biology databases and tools.

**Description:** The core of the portal is a tab-based search engine that provides quick access to the major bioinformatics databases, software tools, and related literature online, in addition to library-supported licensed resources. Each tab offers a federated search of a different pool of resources, including a resource manually curated by the library's molecular biology information specialists. Search results are organized into meaningful categories using Vivisimo clustering technology and are directly accessible from the portal. Additional resources include a step-by-step guide to basic bioinformatics questions, an extensive schedule of both introductory and tool-based bioinformatics workshops, and a consultation service. Prior to launching the portal, usability tests were performed to gather researcher feedback. Success of the portal and associated services is monitored by automated usage sta-

tistics, workshop attendance, and requests for individual assistance. Plans for future portal versions include user-driven database/software ratings.

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#### **Building the Bridge: Developing Clinical Librarianship in Brazil**

**Janet Harrison**, Senior Lecturer, Information Science, Loughborough University, Loughborough, Leicestershire, United Kingdom; **Vera Beraquet**, Professor, Information Science, University of Campinas, Pontifica Universidade Catholica de Campinas, Brazil

**Objective:** A project group consisting of academics and practitioners was established in 2005 at ICML9 in Salvador. The major aim of this group was to develop the concept of clinical librarianship throughout Brazil. Initially the group focus was to gain an understanding of the practice of clinical librarianship in Brazil. Subsequently to determine if this model is appropriate and useful for the Brazilian clinical setting.

**Methods:** In 2005, a UK academic visited the Brazilian partners to introduce and explain the concept of clinical librarianship to faculty members, students, administrators, and medical staff. Background work was then begun. In 2007, a UK academic visited the Brazilian partners to join a project to identify the scope of clinical librarianship in Brazil. Data were gathered using a mixed methods approach. Qualitative data was gathered via semi structured interviews with clinical librarians throughout Brazil. To gain a broader range of data, a questionnaire was administered to all attendees of the Brazilian Health Libraries Group conference in June 2007. The objective of the questionnaire was to establish education, training, and key roles. Analysis was both thematic and statistical.

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#### **A MEDLINE Station in the Clerkship Clinical Skills Exam**

**Donna O'Malley**, Library Associate Professor, Dana Medical Library, University of Vermont-Burlington

**Objective:** The year-long clerkship curriculum in the college of medicine includes hundreds of learning objectives divided into several themes and topics. Although the curriculum has no explicit evidence-based thread, two objectives in the areas of communication and clinical decision-making encompass the classic evidence-based medicine (EBM) skills. What are the benefits and drawbacks of using a clinical skills exam workstation to evaluate student mastery of these two objectives?

**Methods:** Since 2001, the college has used the clinical skills exam (CSE) format for skill assessment, including database search and article evaluation skills. Librarians and clerkship faculty created a CSE station with a paper case scenario for students to use in generating their own clinical question, performing a MEDLINE search to address the question, and retrieving and evaluating an article in pursuit of an answer to the clinical question. Student performance is evaluated against a checklist of

required tasks, developed by both the librarian and the clerkship faculty. The CSE is run three times per year. At each CSE, a librarian attends the EBM station, completing the checklist for each student. Periodically, the librarian and the clerkship faculty review the completed checklists and modify the station and the clerkship curriculum to improve student performance.

**Results:** Initially, student performance on the CSE was poor. As a result, instruction was altered. Student performance improved in some areas. Faculty constructed a new paper case to address concerns about using MEDLINE and the complexity of the original case. Student performance on some measures continued to improve, but search skills lagged. In addition, it was recognized that more should be expected of students in some areas of the exam. Additional instruction in the clerkship to address this deficiency is proposed. Additional assignments in the preclinical years to practice article evaluation skills are also proposed.

**Conclusions:** The CSE experience provided an opportunity to both assess student performance and, because of the one-on-one nature of the interaction, remediate a student's inadequate skills. Participation in a CSE can be a powerful tool to both evaluate and remediate student learning and to evaluate and improve the curriculum itself.

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#### **A Case Study on Three Tutorial Creating Softwares**

**Amy E. Blevins**, Liaison/Information Services Librarian; **C. W. Elton**, Educational Technology Consultant; **William E. Laupus** Health Sciences Library, East Carolina University, Greenville, NC

**Objective:** Our purpose was to determine the best practices for creating and delivering online database instruction tutorials for optimal information accessibility to our division of health sciences students. We are an academic health sciences library that serves the college of allied health sciences, college of nursing, and school of medicine. The combined enrollment for these schools was 798 undergraduates and 1,184 graduate students as of the 2005/06 academic year.

**Methods:** Using a case study methodology, PowerPoint, MediaSite, and Camtasia were used to produce almost identical online tutorials. Tutorial creating software was evaluated on four criteria: usability, accessibility, cost, and time required to create the tutorial. To evaluate usability, we gathered feedback from our faculty and students via an online survey. Librarians tested the tutorials from their home connections to see how they worked. Accessibility was tested by viewing tutorials on a dial-up connection to see how much time was needed to load the tutorial and how well the tutorial functioned on a slow connection. In addition, surveyed patrons were asked if they had problems accessing the tutorials. Cost was evaluated in terms of total cost required to obtain the software for use, and time was measured by the tutorial creator.

**Results:** We found that in our situation, Camtasia delivered optimal results for short sessions such as database

instruction. For instructional situations where video and audio of the instructor, in addition to computer screen shots, can enhance learning, MediaSite would be more appropriate. In situations where bandwidth is low and/or budgets are tight, PowerPoint tutorials are an acceptable solution. Based on our four criteria and the responses of our patrons, Camtasia is the most suitable software for serving up tutorials to our patrons.

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#### **New Roles and Skills for Library Staff in a Customer-focused Environment**

**Peggy Tahir**, Manager, Public Services; **Marcus Banks**, Manager, Education and Information Services; **Gail Persily**, Director, Education and Public Services, and Associate Director, Center for Instruction Technology; **Kathleen Cameron**, Manager, Digital Content Development; Library and Center for Knowledge Management, University of California–San Francisco

**Objective:** The university library has been working toward developing a more customer-focused environment to better serve our patrons and to foster a vibrant learning culture among library staff.

**Methods:** Over the last two years, the library has made a number of changes to improve services as well as provide training to staff who work at our public services desks. The library set up a customer service initiative to obtain input and ideas from staff for improving services to both internal and external patrons. We developed a comprehensive information assistance training program for staff who answer questions at the library's information desk. We also began inviting and training staff from other non-public services departments to provide information assistance to the public. We moved to a single-service desk model during evenings and weekends to be able to extend service hours. We are actively exploring Web 2.0 technologies, beginning to use them at our public desks, and developing a training plan for line staff to begin to use these technologies. We are rolling out Web 2.0 technologies such as podcasts and wikis to the campus community as well.

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#### **Web 2.0 and Information Literacy: The Importance of Critical Thinking in Public Health**

**Laura Cobus**, Head Librarian, Health Professions Library, Hunter College, New York, NY

**Objective:** A librarian developed and delivered a three-credit graduate course in public health. The course provided the opportunity for students to pursue the theoretical and practical principles of information research in public health. The course examined the nature, production, and uses of information including Web 2.0 technologies and its impact on the public's health.

**Methods:** Blogs and wikis are examples of Web 2.0 technology that facilitate collaboration and participation in the online world. In the health sciences, the emergence of these interactive and social tools potentially increases the risk of generating harmful or biased information. It

is the health professional's responsibility to have the skills to critically appraise web content that has not undergone traditional peer review, as well as to understand the various types of information consumers use to make health decisions. To address these issues and to enhance and assess student learning, students were required to use a course blog as mode of course communication, create weekly individual blogs describing a current event in public health, and to create a public health wiki all within the course management tool, Blackboard. Grading rubrics were developed and used to evaluate the individual and group assignments.

**Results:** The participative component of the blogging and wiki created an online community where students were able to continually reflect on their research and technological skills as individuals and as a group. In addition, the assignment fostered a student community, and comprehension of the issues surrounding Web 2.0 as it relates to public health.

**Conclusion:** Instructing graduate students about the traditional and authoritative information retrieval tools along with the non-peer-reviewed tools made for an interesting and exciting course. The librarian is working with faculty from the school of public health to ensure that this elective is incorporated into the overall curriculum for future semesters. In sum, this course has provided the librarian and students with a rich understanding of the complex issues related to public health information literacy and the world of Web 2.0.

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### Enhancing Podcast Development and Activity

**Courtney D. Crummett**, NLM Associate Fellow, MIT Engineering and Science Libraries, Massachusetts Institute of Technology–Cambridge; **Robert A. Logan**, Social Science Analyst, Lister Hill National Center for Biomedical Communications, National Library of Medicine, Bethesda, MD

**Objective:** The authors initiated a comprehensive review of health and medical information podcasts to enhance the National Library of Medicine's (NLM's) podcast, The Director's Comments. The review sought to identify podcast tools, programming themes and styles, technological tips, as well as consider pertinent academic and professional literature. Recommendations for podcast enhancements were requested based on the findings; use statistics were sought.

**Methods:** A qualitative review of health and medical podcasts included these areas: information from scholarly and professional publications, blogs and websites, relevant archives and repositories, government agencies and academic institutions; an assessment of podcast health information sites and directories; as well as conference and workshop proceedings. Quantitative use statistics of the podcast's web page were derived from WebTrends.

**Results:** Recommendations included embedding URLs with live links in podcast transcripts, adding music and completing available metadata fields in some podcast distribution services. Public visits to the NLM podcast increased significantly. The report also features: an annotated literature review and list of health-related podcasts, an assessment of production tools, and suggestions about alternative venues for public distribution.

**Conclusion:** The report suggests podcasts are an important mass medium to deliver health and medical news information to the public. The report suggests the quality of content, public accessibility, and length of the NLM podcast are similar to health and medical information podcasts distributed by other organizations. The report recommends alternative venues to distribute the NLM podcast and provides ideas for new genres of podcasts. The authors provide specific recommendations to further enhance the podcast's quality, most of which were implemented in fall 2007.

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