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**Academic health sciences library  
research support** **Fern M. Cheek, AMLS, AHIP;  
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**INTRODUCTION**

On September 3, 2003, the Medical Library Association adopted a policy statement on the role of expert searching in health sciences libraries. The policy highlighted the need for more thorough literature searching following the unfortunate death of a healthy research volunteer in a clinical trial that might have been prevented by a more complete literature review [1–3]. In light of this policy, the John A. Prior Health Sciences Library at The Ohio State University created a position for a dedicated research librarian in 2004 to better support the organization's focus on the research mission. The newly hired librarian identified comparable positions at other academic health sciences libraries and the roles and responsibilities assigned to these positions to find out how these librarians supported the researchers at their institutions. After this investigation, a survey was undertaken to investigate more fully how academic health sciences libraries across the country provide support to the researchers at their institutions.

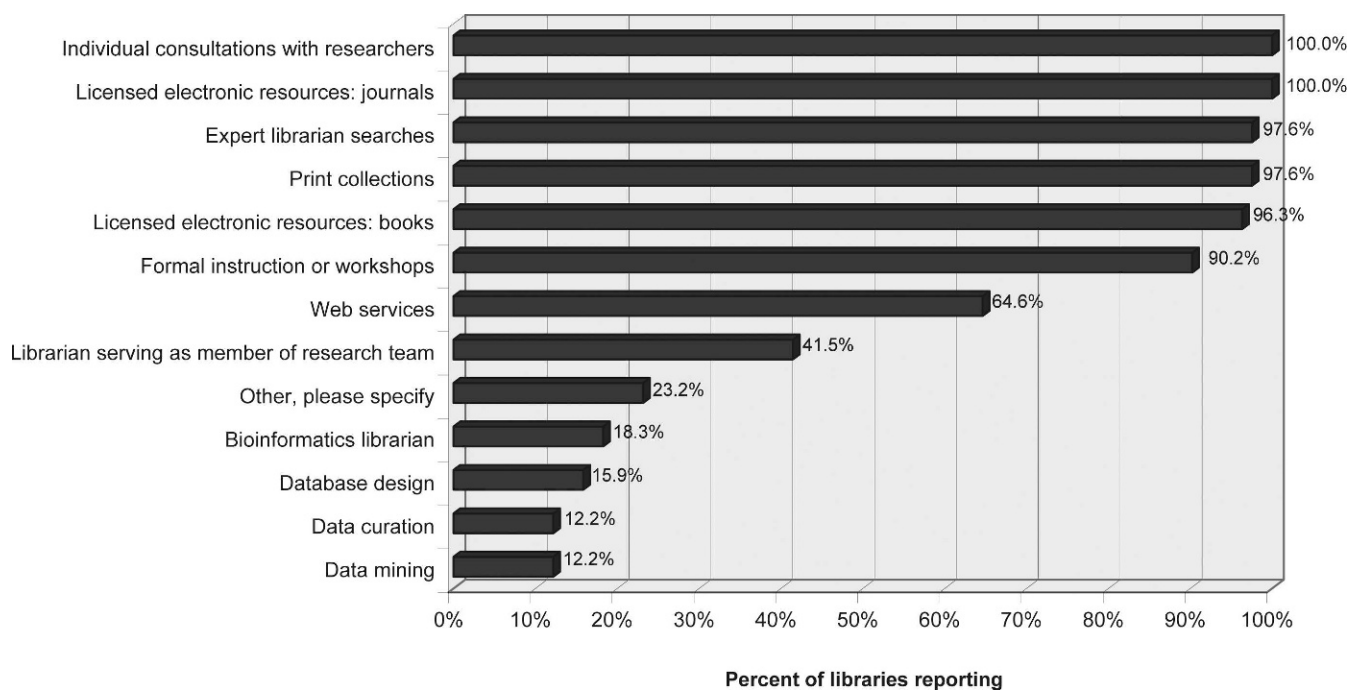
**METHODOLOGY**

After reviewing recommendations made by the American Association for Public Opinion Research on how to produce a quality survey, the investigators developed a survey that focused on assessing the types and levels of support that academic health sciences libraries provided to biomedical researchers [4] (Appendix, online only). Assistance in the development of the survey was provided by The Ohio State University's Statistical Consulting Services, who recommended using a combination of open-ended, structured, and scaled responses.



A supplemental appendix is available with the online version of this journal.

**Figure 1**  
Type of library support provided by percent of libraries reporting



The survey population included 136 academic health sciences libraries in the United States and Canada, all of whom were institutional members of the Association of Academic Health Sciences Libraries (AAHSL) as listed on the AAHSL website as of September 14, 2007. Two nonacademic institutions were omitted from the survey, The Centers for Disease Control and Prevention Information Center and the National Library of Medicine, leaving a total survey population of 134.

Librarians from the researchers' institution completed a pretest of the survey. Letters were sent via US mail to the heads of the academic health sciences libraries, explaining the project and inviting them or their designees to participate in the survey. A week later, the web-based survey was launched through email. The survey opened on November 5, 2007, with two email reminders, and closed on December 6, 2007.

## RESULTS

### Response rate

The response rate to the web based survey was 65% (87 participants out of a population of 134; 3 of the 87 surveys had all questions blank). Responses did not reveal any duplication of institutions. Two factors might have contributed to the high response rate: the introductory letter to library directors and subsequent reminder emails. The overall margin of sampling error across all questions in this survey was plus or minus 10.5 percentage points. Because respondents

did not always answer all of the questions, the number of responses to each question varied.

### General findings

The survey was designed to identify all the ways that libraries were providing support to researchers. All responding institutions except one indicated that the library did provide some type of support. Respondents from the one institution that did not provide any support stated that they were considering doing so in the future. All of the respondents (100%, 80 of 80) thought that librarian support for researchers was "important," "very important," or "somewhat important."

### Support

Several types of support were reported by 50% or more of the respondents: licensed electronic resources (journals), individual consultations with researchers, print collections, expert librarian searches, licensed electronic resources (books), formal instruction or workshops, and web services. Electronic journals and individual consultations with researchers were provided by 100% (83 of 83) of respondents who supported researchers (Figure 1).

Types of support less commonly provided to the researchers included librarian member of the research team, bioinformatics librarian, database design, data mining, and data curation. These services all were provided by less than 25% of the respondents. Other

support or services mentioned (tallied in “other, please specify” in Figure 1) were: assistance on institutional review boards (IRBs), provision of bibliographic management software, publication support, institutional repositories, document delivery, education, grant writing, and liaison activities. IRB and bibliographic management software were the two most frequently mentioned. A complete analysis of librarian participation on IRBs is made later in this article.

The number of librarians working at least part time to support research varied from 1 in some institutions to 21 in others. The average number of librarians per institution working at least part time on research was 5.30 with a standard deviation (SD) of 3.81. Over 51% (41 of 80) of these librarians spent less than 25% of their time on research.

### Librarian skills

To assist researchers, librarians reported that they primarily used their knowledge of multiple databases, strong communication skills, and understanding of the research role in their institutions. The study investigators provided the list of skills to choose from. When given the option to list other skills and services that are frequently used, a number were mentioned: education and training, bibliographic software management, expert database searching, reference interviews, publication support, formal education in the sciences, IRB knowledge or ability, institutional repository, and grants.

### Financial support

Only 40.0% (30 of 75) of respondents indicated that their institutions provided financial support to the library to fund the research librarian positions. Out of the institutions that received support, 66.7% (20 of 30) provided between 76.0% and 100.0% for salary and resources.

It is interesting to note that when respondents were asked who first requested that the library support researchers, 36.0% (27 of 75) of respondents said support was first requested by the library and 34.7% said it was jointly initiated by the library and researchers. In response to the “other” option for this question, 17.3% (13 of 75) said they considered researcher support part of traditional library service. Other requests for financial support came from various sources (e.g., deans, IRBs).

### Number of researchers

When asked how many researchers had been assisted by librarians, 33.7% (25 of 74) of the respondents replied they had assisted more than 75 researchers at each of their respective institutions over the past year. Those who assisted 26–50 researchers were the next largest group, with 31.1% (23 of 74); 20.3% (15 of 74) helped fewer than 25; and 14.9% (11 of 74) helped 51–75.

## EVALUATION

A large percentage (82.5%, 66 of 80) of the respondents did not evaluate any of the services they provide to researchers. Those who did evaluate the services did so in a variety of ways. Some of the methods mentioned included formal and informal surveys of IRB members and researchers, focus group discussions with the researchers, and summary data on resources, services provided, and data summarizing the demographics.

### Librarian training

The education and training of librarians who provided services to assist researchers varied considerably. The majority (86.3%, 63 of 73) reported taking continuing education (CE) courses to prepare them to provide high-level support to researchers. Mentoring from other librarians was cited by 56.2% of the respondents (41 of 73). A number of librarians (30.1%, 22 of 73) had science degrees beyond undergraduate work as their preparation. This result was similar to that reported by Osterbur, who examined the backgrounds of librarians who provided bioinformatics services and found that more than half had basic science degrees and a third had postgraduate degrees in the sciences [5]. In this survey, 20.5% of the respondents (15 of 73) reported “other” methods of education or training, mentioning attending research department meetings, on-the-job training, and laboratory experience.

### Human and animal research

A large number of respondents (96.3%, 77 of 80), reported working in health sciences centers where human and/or animal research studies or clinical trials were conducted. A little more than a half (53.9%, 41 of 76) of the respondents did not provide educational or tutorial programs to those involved with human and/or animal subject research. A small percentage (16.9%, 13 of 77) of academic health sciences library staff served on IRBs in support of both animal and human clinical trials.

### Institutional review boards

In institutions where librarians served as members of IRBs, the survey respondents indicated the service most often provided was reviewing and evaluating protocols. A total of 83.3% (10 of 12) of librarians reported that they reviewed protocols; 58.3% (7 of 12) provided copies of journal articles; and 58.3% (7 of 12) conducted expert comprehensive literature searches. Also, 58.3% (7 of 12) of respondents stated that librarian IRB members reviewed content or disclosure and waiver forms for readability, which included assessing the content and language to determine if it was appropriate for the layperson.

Of the librarians who were IRB members, 41.7% (5 of 12) served as consultants to the board, for example,

developing tools such as checklists for members to use when reviewing references. Some consultant librarians also conducted quality filtering of literature reviews; 25.0% (3 of 12) reported providing this service.

The survey results indicated that librarian IRB committee participants were voting members of the committee in the majority of institutions. Seventy-five percent (9 of 12) indicated they voted on all committee matters. The mean amount of time that IRB librarian members spent on the committee's work per month was 9.95 hours, with the range of hours from 4.5–16.0 hours per month. In 10 responses to an open-ended question soliciting opinions about benefits to the library in serving or supporting the IRB, a common theme was that the activity resulted in a higher profile for the library, along with a better understanding of the library's services. One respondent stated that, when library support is expanded to IRBs, it is seen by faculty as a helpful resource provided by the institution.

### Clinical trials and the public

Only 29.9% (23 of 77) of respondents reported providing the general public with information about participation in clinical trials. Reference services were used for this purpose by 82.6% (19 of 23) and the institutions' websites by 78.3% (18 of 23).

### DISCUSSION

The survey results show that the majority of libraries provide support for biomedical researchers, with the most common forms being the traditional services of individual consultations, licensed resources, expert searching, and print collections. These services and skills are discussed in the American Library Association's "Guidelines for Information Services" [6].

A variety of other services are also being offered, providing avenues for those who want to become more involved with biomedical research at their institution. Interestingly, few libraries have evaluated their programs that support biomedical researchers. Including an evaluation of these programs could foster meaningful improvements in service performance.

While some librarians are involved with IRBs, this is not the case in a majority of the AAHSL institutions. Data suggest that librarians may wish to inquire about IRB or similar committee participation. The academic librarian role is an evolving one, and librarians who participate on IRBs state that IRB participation increases library visibility and understanding of library services. CE coursework is the primary method that librarians employ to allow them to better serve the research community. The Medical Library Association offers courses such as "The PhD Experience: Graduate School in the Basic Biomedical Sciences," "No Fear Molecular Biology: Concepts and Searching," and "Becoming an Expert Searcher"

[7–9]. CE, along with mentoring and recruiting librarians with a science background, may provide a means to further strengthen a library's research support. New developments such as the National Institutes of Health public access policy may further impact services that health sciences libraries provide to biomedical researchers.

### SUGGESTIONS FOR FUTURE RESEARCH

One topic for future research might be what librarians' roles are in research funded by Clinical Translational and Science Awards (CTSA) made to colleges and universities and what effect those awards have on expanding library services to meet the needs of researchers. Examples of some of these new roles can be found at the University of Michigan Health Sciences Library, which has developed a partnership with the CTSA consortium at their institution [10], and the librarian at Yale University's Harvey Cushing/John Hay Whitney Medical Library, who works with the CTSA program at that institution [11]. Data on library and librarian involvement in this area is very limited. Another topic for future research may be to determine whether the less commonly offered services shown in Figure 1 are effective and increasingly adopted by institutions.

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