Orientation to the Internet for primary care health professionals*

By Sue M. Hollander, M.L.S.
Resident Librarian

Don Lanier, M.L.S.
Health Sciences Librarian and Associate Professor

University of Illinois at Chicago
Library of Health Sciences at Rockford
1601 Parkview Avenue
Rockford, Illinois 61107-1897

INTRODUCTION

Family practice or primary care professionals have unique information needs. Because a family practice spans all medical subspecialties, individuals practicing in this field have difficulty staying current. What is more, many primary care professionals practice in rural areas and do not have ready access to well-stocked medical libraries or informed colleagues. Computers and telecommunications technology can play an important role in reducing information isolation and in assisting this group in managing the vast knowledge base of medicine [1].

Several studies have examined the information-seeking patterns of rural and nonrural physicians. Colleagues and the medical literature are ranked consistently as the most frequently used sources of medical information. Computerized sources of information rank lower on the list [2]. Although most colleges and universities and many teaching hospitals are connected to the Internet, only a minority of faculty, staff, and students affiliated with these institutions are familiar with and use this valuable source of information, according to the Association of American Medical Colleges [3].

INTERNET TRAINING PROJECT

As more and more information sources become available over the Internet, academic health sciences librarians must assume a major role in disseminating this information. Recognizing this trend, the librarians of the Library of the Health Sciences at the University of Illinois College of Medicine in Rockford (UICOM-R) targeted for Internet training all primary care physicians, nurses, and pharmacists affiliated with UICOM-R and practicing (or teaching) full-time in the campus-based Office for Family Practice or one of the university's three community health centers.

The UICOM-R emphasizes primary care in educating medical students. Established in 1972, the Rockford campus is one of three regional sites of the college and is considered a prototype for community-based education. It owns and operates three community health centers in rural northwestern Illinois. These centers were established to meet the need for health services in underserved areas and to give medical students the opportunity to participate in total patient care.

Family practice is the only residency program at Rockford. The family practice residency is the largest producer of family physicians in the state of Illinois, having graduated more than 170 residents since 1972.

The survey

In the fall of 1993, health sciences librarians at UICOM-R mailed a brief questionnaire to each primary care physician, clinical pharmacist, and registered nurse practicing in the Office for Family Practice or at a community health center. The survey population included forty-nine physicians, two clinical pharmacists, and fifteen nurses, for a total of sixty-six. The project team had three goals in distributing this questionnaire: to determine whether these practitioners owned or had access to a personal computer with a modem, to gather information about this group's use of e-mail and information sources available on the Internet, and to identify those who would be interested in learning more about the Internet.

Twenty-five of the sixty-six individuals receiving the questionnaire responded within one month. Respondents included seventeen physicians, three nurses, two clinical pharmacists, and three who did not identify their field of practice. The greatest response came from those practicing in the community health centers.

Sixteen respondents reported owning or having access to a personal computer, eleven of which were equipped with modem. Only four respondents had an account providing them with access to information on the university computer network and the Internet.

Three respondents reported using or having used the Internet. All three reported using e-mail, two had used Gopher, and one had used remote log-on and file-transfer protocol (FTP) to transfer files from a remote site to a personal computer. One respondent reported having used the Internet specifically to search for medical or health information.

Finally, a majority (nineteen) of those responding to the questionnaire indicated they would be interested in learning more about the Internet and its resources for primary care professionals.

Demonstration/training sessions

Demonstration or training sessions were set up at times the librarians felt would accommodate respondents' schedules and were conducted over three months. During this time, eight physicians and one nurse were introduced to the Internet. Follow-up is planned, and future sessions will be offered to all primary health care professionals who responded to the questionnaire.

Of particular interest to the librarians has been the significant increase in interest in the Internet expressed among other College of Medicine staff and faculty. During the three-month Internet training period for survey respondents, faculty and support staff from several departments called to request (and subsequently received) Internet training. Even though the librarian of the health sciences at Rockford has been involved actively in Internet training for local and regional librarians and hospital administrators, faculty and staff at the College of Medicine were not very interested until training with primary health care professionals took place.

Each demonstration or training session lasted approximately one hour—long enough to cover a brief introduction to major Internet activities yet short enough to respect the busy schedules of those requesting training. Training was carried out individually or in small groups in the Library of the Health Sciences. Overhead projections allowed all participants to view an actual Internet session. Several handouts were distributed, including information about library connectivity at the college, how to dial into the Rockford campus, how to use e-mail, and Internet Basics by Roy Tennant [4]. To encourage and facilitate use of the Internet, librarians secured a user ID and password for each respondent who wanted to learn more about Internet. All of those attending demonstrations were invited to schedule individual hands-on follow-up sessions.

The demonstrations were designed to cover the three basic Internet activities—e-mail and listservs, remote log-on (telnet), and FTP. Gopher searching also was covered. All of these activities were demonstrated using sites and resources that might be of interest to primary care professionals. Because faculty, staff, and students affiliated with the University of Illinois recently gained prepaid access to MEDLINE and other National Library of Medicine databases using GRATEFUL MED software via the Internet, MEDLINE use was demonstrated in each training session.

Evaluation

Participants were asked to complete a brief evaluation form following the Internet demonstration. Most were surprised at how much the Internet had to offer, and all agreed the demonstration and training session was worthwhile and that the material covered was applicable to their work. Most participants expressed particular interest in e-mail, which would allow them to communicate directly with colleagues, and many indicated they would like additional training in searching the medical literature using GRATEFUL MED software. One respondent, already familiar with the Internet, expressed an interest in advanced training.

OBSERVATIONS AND CONCLUSIONS

The goals of this project were accomplished. The librarians were able to assess the status of respondents in utilizing information sources available via the Internet. At the same time, a number of primary care physicians, nurses, and pharmacists interested in learning more about the Internet were identified. In a brief, one-hour session, these busy practitioners were shown the possibilities for communicating electronically with colleagues near and far, as well as a few of the valuable medical and health resources available on the Internet. In the words of Frisse and others, the project was able to "help the uninitiated develop a framework for relating to a new means of academic communication—a starting point for lifelong involvement in an increasingly enjoyable and necessary technology" [5]. One hopes that those who attended the Internet demonstrations will pass what they learned on to other health care professionals and students.

The project also raised several questions. The initial low rate of participation in training suggests that perhaps others in the physician's office, such as medical secretaries or medical assistants, might be appropriate primary targets for Internet training. These persons in turn could pass on to the practitioners information concerning Internet activities that might be most valuable to them. Also, this project raised the question about when Internet training might be most effective. Perhaps it should be incorporated into the undergraduate medical curriculum. Although librarians encourage medical and nursing students to open university computer accounts and have become active informally in teaching the basics of e-mail, no formalized Internet training has been integrated into the curriculum as yet, except for the use of GRATEFUL MED.

REFERENCES

3. Most colleges are connected but too few students and faculty use it. Gratefully Yours 1994 Mar/Apr:8.


Received May 1994; accepted August 1994

---

### Articles in Forthcoming Issues

**Physical therapists in private practice: information sources and information needs**  
*Ellen F. Hall*

**The integration of information-seeking skills and activities into a problem-based curriculum**  
*Katherine Schilling, David S. Ginn, Patricia Mickelson, and Loren H. Roth*

**Structured abstracts in MEDLINE, 1989-1991**  
*Anna M. Harbourt, Lou S. Knecht, and Betsy L. Humphreys*

**The role of health sciences librarians in the teaching and retention of the knowledge, skills, and attitudes of lifelong learning**  
*Julie J. McGowan*

**The first professional position: expectations of academic health sciences library employers**  
*Virginia Massey Bowden and Evelyn R. Olivier*

**Assessing the information needs of non-institutionally affiliated AIDS service organizations in the state of Texas**  
*Jeffrey T. Huber and Mary S. Machin*

**Enhancing online bibliographic records to improve retrieval of reference collection monographs**  
*Ruth H. Makinen and Betsy Friesen*