

Case Report ■

Use of MEDLINE by Rural Physicians in Washington State

STEFAN J. CHIMOSKEY, MD, MM, THOMAS E. NORRIS, MD

Abstract Studies have suggested that rural physicians do not use MEDLINE to aid their clinical decision making,¹⁻⁶ and yet rural physicians appear to be a group that would benefit greatly from the use of MEDLINE because of their isolation from libraries and colleagues. This study was undertaken to understand why a population so likely to benefit from the use of MEDLINE is not using it.

The study confirmed that rural physicians regard colleagues, reference texts, and journal articles as the most important information sources. However, a surprising number of rural generalist physicians in Washington, 40 percent of respondents, use MEDLINE, and most possess the requisite awareness, resources, and ability to use MEDLINE. Of those who use MEDLINE, 70 percent consider it a valuable clinical tool.

■ *JAMIA*. 1999;6:332-333.

The objectives of this study were to assess whether rural physicians have the requisite skills and hardware necessary to go online to search for health information, to determine whether rural physicians use MEDLINE, and to assess its value as a clinical research tool relative to traditional sources of information.

Methods

The survey group included 350 rural generalist physicians in Washington state. "Rural" was defined as practicing in an area that is at least 50 miles from a metropolitan area of at least 5,000 people. "Generalist physicians" were defined as licensed family physicians or internists who consider themselves actively involved in patient care as opposed to research. The 350 physicians surveyed represent the entirety of rural generalist physicians in the state of Washington. Using a questionnaire, we examined their use of MEDLINE, computers, and phone consultation as well as

more traditional information resources such as reference books and journal articles. Our questionnaire also assessed their opinions regarding the usefulness of various information resources in solving clinical problems. The initial survey was followed by one or two additional surveys to the rural physicians who failed to respond to the first or second mailing.

Results

Of the 350 rural generalist physicians who received the survey instrument, 258 (74 percent) responded. Of the respondents, 88 percent own a PC, 87 percent have one at home, 77 percent have one at work, 74 percent own a modem, 67 percent use a PC, 60 percent use e-mail, 57 percent use the Internet, and 27 percent use online services. Of the respondents, more are aware of MEDLINE (85 percent) than use MEDLINE (40%).

Most respondents used traditional sources of information instead of newer technology: 96 percent use journals, 93 percent use reference books, and 93 percent use colleagues. Of respondents who use either the Internet or e-mail, 53 percent also use MEDLINE. MEDLINE was used by 51 percent of online service subscribers, 50 percent of PC owners, 47 percent of those aware of MEDLINE, 46 percent of modem owners, 43 percent of those under age 50 years, 42 percent of men, 35 percent of those over age 50 years, and 35 percent of women.

Affiliation of the authors: University of Washington School of Medicine, Seattle, Washington.

Correspondence and reprints: Stefan J. Chimoskey, MD, MM, 5222 17th Northeast, Seattle, WA 98105.
e-mail: (stefanch@u.washington.edu).

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Of the respondents, 97 percent agreed with the statement, "If I need an answer to a clinical problem, I consult a clinical reference book." Similarly, 95 percent agreed with the statement, "If I need an answer to a clinical problem, I consult with my colleagues." Medical journals were "essential" to 91 percent, but "MEDLINE is an essential tool for my work" was true for only 29 percent. However, MEDLINE was "essential" for 70 percent of those who are MEDLINE users. PCs were "essential" to only 53 percent of respondents, while 16 percent agreed that "I don't have time to use a computer."

Conclusions

Barriers to generalizability of this study include concerns that the usage rate of MEDLINE in Washington is different than in other states. The University of Washington Health Sciences Library has provided physicians with free access to MEDLINE through their UWIN program. Another concern is that the 26 percent of the initial survey group who did not respond to the survey may have a much lower use of computers and MEDLINE. Finally, this study did not differentiate between physicians who use MEDLINE directly from those who use it through a librarian. Consequently,

the results may have the effect of making it appear that a higher number of respondents who have computer technology use MEDLINE directly, than actually do.

This study does however, demonstrate that more rural generalist physicians use MEDLINE than previously described.¹⁻⁶ Awareness of MEDLINE is strong, and those physicians who use MEDLINE find it a valuable tool for answering clinical problems.

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