

Current research

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Deurenberg R, Vlayen J, Guillo S, Oliver TK, Fervers B, Burgers J, SEARCH Group. Standardization of search methods for guideline development: an international survey of evidence-based guideline development groups. *Health Info Libr J*. 2008 Mar;25(1):23–30. PMID 18251909.

Background: Effective literature searching is particularly important for clinical practice guideline development. Sophisticated searching and filtering mechanisms are needed to help ensure that all relevant research is reviewed. **Purpose:** To assess the methods used for the selection of evidence for guideline development by evidence-based guideline development organizations. **Methods:** A semistructured questionnaire assessing the databases, search filters, and evaluation methods used for literature retrieval was distributed to eight major organizations involved in evidence-based guideline development. **Results:** All of the organizations used search filters as part of guideline development. The MEDLINE database was the primary source accessed for literature retrieval. The OVID or SilverPlatter interfaces were used in preference to the freely accessed PubMed interface. The Cochrane Library, EMBASE, CINAHL, and PsycINFO databases were also frequently used by the organizations. All organizations reported the intention to improve and validate their filters for finding literature specifically relevant for guidelines. **Discussion:** In the first international survey of its kind, eight major guideline development organizations indicated a strong interest in identifying, improving, and standardizing search filters to improve guideline development. It is to be hoped that this will result in the standardization of, and open access to, search filters, an improvement in literature searching outcomes, and greater collaboration among guideline development organizations.

Bardyn TP, Young CS. Migration to an electronic journal collection in a hospital library: implications for reference service. *Med Refe Serv Q*. 2007 Winter;26(4):27–44. PMID 18086640.

This article provides a perspective on the migration to an electronic-only journal collection in a hospital library and its effect on reference services, information-seeking, and library use patterns. Bellevue Hospital Center in New York, N.Y. is one of the first major teaching hospitals in the United States to begin a fundamental shift to a current, electronic-only journal collection. This article describes the process and develops a model for use by other hospital libraries, with commentary on the impact on reference services to library users. Key findings are that physicians, residents, and nurses have

come to expect electronic journal collections and use the Internet in the hospital library to access electronic journals. Similar to many academic health sciences libraries, the reference desk in a hospital library has become more like a technical support desk. Users who contact the library have questions about access to the library's electronic resources or about searching techniques.

Starr S, Williams J. The long tail: a usage analysis of pre-1993 print biomedical journal literature. *J Med Libr Assoc*. 2008 Jan;96(1):20–7. PMID 18219377. Available at <http://www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pubmed&pubmedid=18219377>.

Objective: The research analyzes usage of a major biomedical library's pre-1993 print journal collection. **Methodology:** In July 2003, in preparation for a renovation and expansion project, the Biomedical Library at the University of California, San Diego, moved all of its pre-1993 journal volumes off-site, with the exception of 22 heavily used titles. Patrons wishing to consult one of these stored volumes could request that it be delivered to the library for their use. In the spring of 2006, an analysis was made of these requests. **Results:** By July of 2006, 79 827 journal volumes published in 1992 or earlier had been requested from storage. The number of requests received declined with age of publication. The usage distribution exhibited a "long tail": 50% of the 79 827 requests were for journal volumes published before 1986. The availability of electronic access dramatically reduced the chance that corresponding print journal volumes would be requested. **Conclusions:** The older biomedical print journal literature appears to be of continued value to the biomedical research community. When electronic access was provided to the older literature, demand for older print volumes declined dramatically.

Cobus L. Integrating information literacy into the education of public health professionals: roles for librarians and the library. *J Med Libr Assoc*. 2008 Jan;96(1):28–33. PMID 18219377. Available at <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2212327>.

Objective: The paper reviews the core competencies for public health professionals presented in the Institute of Medicine's (IOM) report, "Who will keep the public healthy: educating public health professionals for the 21st century"; describes improving information literacy (IL) as a mechanism for integrating the core competencies in public health education; and showcases IL as an opportunity for solidify-

ing partnerships between academic librarians and public health educators. **Methods:** The IOM competencies, along with explicit examples of library support from a literature review of current IL trends in the health sciences, are analyzed. **Results:** Librarians can play a fundamental role in implementing the IOM's core competencies in shaping public health education for the 21st century. A partnership between public health educators and librarians through a transdisciplinary approach is recommended. **Conclusions:** IL skills and competencies integrated into public health curricula through a collaborative partnership between public health educators and librarians can help integrate the IOM's core competencies and improve public health education.

Jerome RN, Giuse NB, Rosenbloom ST, Arbogast PG. Exploring clinician adoption of a novel evidence request feature in an electronic medical record system. *J Med Libr Assoc.* 2008 Jan;96(1):34–41. PMID 18219379. Available at <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2212326&rendertype=abstract>.

Objective: The research evaluated strategies for facilitating physician adoption of an evidence-based medicine literature request feature recently integrated into an existing electronic medical record (EMR) system. **Methods:** This prospective study explored use of the service by 137 primary care physicians by using service usage statistics and focus group and survey components. The frequency of physicians' requests for literature via the EMR during a 10-month period was examined to explore the impact of several enhanced communication strategies launched mid-way through the observation period. A focus group and a 25-item survey explored physicians' experiences with the service. **Results:** There was no detectable difference in the proportion of physicians utilizing the service after implementation of the customized communication strategies (11% in each time period, $P = 1.0$, McNemar's test). Forty-eight physicians (35%) responded to the survey. Respondents who had used the service ($n = 19$) indicated that information provided through the service was highly relevant to clinical practice (mean rating 4.6, scale 1 "not relevant" – 5 "highly relevant") and most ($n = 15$) reported sharing the information with colleagues. **Conclusion:** The enhanced communication strategies, though well received, did not significantly affect use of the service. However, physicians noted the relevance and utility of librarian-summarized evidence from the literature, highlighting the potential benefits of providing expert librarian services in clinical workflow.

DeLuca JB, Mullins MM, Lyles CM, Crepez N, Kay L, Thadiparthi S. Developing a comprehensive search strategy for evidence based systematic reviews. *Evidence Based Library and Information Practice.* 2008;3(1):3–32. Available at <http://ejournals.library.ualberta.ca/index.php/EBLIP/article/view/855/1073>.

Objective: As the health care field moves towards evidence-based practice, it becomes ever more critical to conduct systematic reviews of research literature for guiding programmatic activities, policy-making decisions, and future research. Conducting systematic reviews requires a comprehensive search of behavioral, social, and policy research to

identify relevant literature. As a result, the validity of the systematic review findings and recommendations is partly a function of the quality of the systematic search of the literature. Therefore, a carefully thought out and organized plan for developing and testing a comprehensive search strategy should be followed. **Methods:** The comprehensive search strategies, including automated and manual search techniques, were developed, tested, and implemented to locate published and unpublished citations to build a database of HIV/AIDS and STD literature for the CDC's HIV Prevention Research Synthesis Project. The search incorporates various automated and manual search methods to decrease the chance of missing pertinent information. The automated search was implemented in MEDLINE, EMBASE, PsycINFO, Sociological Abstracts and AIDSLINE, some of the key databases for biomedical, psychological, behavioral science, and public health literature. These searches utilized indexing, keywords including truncation, proximity, and phrases. The manual search method includes physically examining journals (hand searching), reference list checks, and researching key authors. **Results:** Using automated and manual search components, the PRS search strategy retrieved 17 493 HIV/AIDS/STD prevention focused articles for the years 1988–2005. The automated search found 91%, and the manual search contributed 9% of the articles reporting on HIV/AIDS or STD interventions with behavior/biologic outcomes. Among the automated search citations, 48% were found in one database only (20% MEDLINE, 18% PsycINFO, 8% EMBASE, 2% Sociological Abstracts). **Conclusions:** A comprehensive base of literature requires searching multiple databases and methods of manual searching in order to locate all relevant citations. Understanding the project needs, the limitations of different electronic databases, and other methods for developing and refining a search are vital in planning an effective and comprehensive search strategy. Reporting standards for literature searches as part of the broader push for procedurally transparent and reproducible systematic reviews is not only advisable, but good evidence-based practice.

Mulvaney SA, Bickman L, Giuse NB, Lambert EW, Sathe NA, Jerome RN. A randomized effectiveness trial of a clinical informatics consult service: impact on evidence-based decision-making and knowledge implementation. *J Am Med Inform Assoc.* 2008 Mar/Apr;15(2):203–11. PMID 18096918.

Objective: To determine the effectiveness of providing synthesized research evidence to inform patient care practices via an evidence based informatics program, the Clinical Informatics Consult Service (CICS). **Design:** Consults were randomly assigned to one of two conditions: CICS Provided, in which clinicians received synthesized information from the biomedical literature addressing the consult question or No CICS Provided, in which no information was provided. **Measurement:** Outcomes were measured via online post-consult forms that assessed consult purpose, actual and potential impact, satisfaction, time spent searching, and other variables. **Results:** Two hundred twenty-six consults were made during the 19-month study period. Clinicians primarily made requests in order to update themselves (65.0%,

147/226) and were satisfied with the service results (Mean 4.52 of possible 5.0, SD 0.94). Intention to treat (ITT) analyses showed that consults in the CICS Provided condition had a greater actual and potential impact on clinical actions and clinician satisfaction than No CICS consults. Evidence provided by the service primarily impacted the use of a new or different treatment (OR 8.19 95% CI 1.04–64.00). Reasons for no or little impact included a lack of evidence addressing

the issue or that the clinician was already implementing the practices indicated by the evidence. **Conclusions:** Clinical decision-making, particularly regarding treatment issues, was statistically significantly impacted by the service. Programs such as the CICS may provide an effective tool for facilitating the integration of research evidence into the management of complex patient care and may foster clinicians' engagement with the biomedical literature.