Health services research

More lessons from Kaiser Permanente and Veterans' Affairs healthcare system

Education and debate p 1339

Imagine a health system that improved diabetes control from 51% to 94%, screening for cervical cancer from 62% to 93%, and use of β blockers for myocardial infarction at discharge from hospital from 70% to 95%. Imagine another system that costs the same as the NHS but has consistently higher quality of care as measured by process and outcome measures. Actually you don't have to imagine them because these two systems already exist—in the United States. Between 1995 and 2000 the Veterans' Affairs healthcare system achieved these remarkable improvements in quality for its more than 3.5 million users while reducing costs per patient by 25%.[1 2] In the second case, the starkly better results for the 9 million members of the Kaiser Permanente health system compared with the NHS were documented in a 2002 study published in this journal.[3]

That both these systems invest heavily in health services research is probably no coincidence. The Veterans' Affairs system puts in $50m (£29m; €42m) a year, including support for the quality enhancement research initiative, which "purposely links research activities … to clinical care in as close to real time as possible, thereby leading to rapid adoption of best clinical practices and improvement in patient outcomes."[1] Kaiser Permanente invests more than $80m of its $17bn annual budget in research, including $12.3m for its care management institute, to "synthesize knowledge about the best clinical approaches and create, implement, and evaluate effective and efficient health care programs."[4]

The striking characteristic of these organisations' investments is that they are not granting councils giving out funds to meritorious applicants. They are frontline delivery organisations using health services research to respond to the direct needs of their managers and clinicians for better information on which to base their decisions.

For these organisations the research function is not a separate activity hived off to experts in universities and other stand alone units (although many of the researchers have university appointments). The research agenda is set by the organisations' needs; the research is done collaboratively between the managers, the clinicians, and the researchers; and the results find their way directly into practice through integrated management structures and processes such as practice guidelines, computer reminders, test ordering systems, disease management teams, and so on. As Mark Smith of the California Healthcare Foundation said: "Health services research is too important to leave to just health services researchers."[5]

The importance of "linkage and exchange" between health services researchers and those who can use their results is not a new discovery. Studies and systematic reviews show it is the best predictor of when and how research gets used.[6–8] We adopted this approach at the Canadian Health Services Research Foundation in 1998, acting as a broker between researchers and the system to improve evidence based decision making capacity,[9] with positive results.[10] For too long implementation of health services research has been viewed as a technical exercise in better dissemination; now is the time to highlight the importance of inter-personal links and the need to embed exchange between applied research and practice within health service delivery organisations.

The limited adoption of this linkage and exchange approach in the United Kingdom may well go part way to explaining the disappointing results from over a decade of investments in the NHS research and development strategy. This strategic omission is highlighted in both the Health Foundation-Nuffield Trust report on health services research—summarised in this issue[11]—and the report to parliament in April of the Comptroller and Auditor General on governments' use of research in policy making.[12] The latter concluded that "the early involvement of potential users of the research will increase the likelihood that research results will be utilised."

The Health Foundation-Nuffield Trust report provides some good ideas for how to embed such linkage and exchange into the health services research domain. The report proposes a UK Academy for Health Services Research; the development of "knowledge translators"; and fellowships that build strategic alliances between the NHS, academia, and policy makers. These will all increase the ongoing dialogue between researchers, funders, and users at each of the crucial stages of setting the priorities, doing the research, disseminating it, and ensuring its application and use.

Most important, however, and most neglected to date, is the demand side of the equation—the need to build users' appreciation of health services research, their skills to commission or find it, and their ability to apply it in everyday care for management of patients. It is not the researcher's job to implement findings;[13] the investments needed to ensure the application of health services research are the responsibility of clinicians, managers, and the organisations in which they work. If the Veterans' Affairs healthcare system and Kaiser Permanente can do it in the United States, why not the NHS in the United Kingdom?

Jonathan Lomas *executive director*

Canadian Health Services Research Foundation, 1565 Carling Avenue, Suite 700, Ottawa, ON, Canada K1Z 8R1 (jonathan.lomas@chsrf.ca)

Competing interests: JL and Mark Smith (quoted in the text) were on the international expert steering group that assisted Penny Dash and colleagues on the design of the Health Foundation-Nuffield Trust study of health services research summarised in this issue.

1 Kizer KW, Demakis JG, Feussner JR. Reinventing VA health care. Systematizing quality improvement and quality innovation. *Med Care* 2000;38(suppl):SI7-16.
2 Jha AK, Perlin JB, Kizer KW, Dudley RA. Effect of the transformation of the Veterans' Affairs Health Care System on the quality of care. *N Engl J Med* 2003;348:2218-27.

BMJ 2003;327:1301–2

3 Feachem RG, Sekhri NK, White KL. Getting more for their dollar: a comparison of the NHS with California's Kaiser Permanente. *BMJ* 2002;324:135-41.
4 Stiefel M, Rothert K, Crane R, Caplan W, Pettay H. Kaiser Permanente's national integrated diabetes care management program. In Fox DM, Oxman AD, eds, *Informing judgment: case studies of health policy and research in six countries*. New York: Milbank Memorial Fund, 2001.
5 Smith M. The California Healthcare Foundation. Presentation to "Translating Research into Practice: What's Working? What's Missing? and What's Next?". Agency for Healthcare Research and Quality Annual Conference, Washington, DC, 24 July 2003.
6 Huberman M. Research utilization: the state of the art. *Knowledge Policy* 1994;7:22-42.
7 Davies H, Nutley S, Smith P. What works? Evidence-based policy and practice in public services. Bristol: Policy Press, 2000.
8 Innvaer S, Vist G, Trommald M, Oxman A. Health policy-makers' perceptions of their use of evidence: a systematic review. *J Health Serv Res Policy* 2002;7:239-44.
9 Lomas J. Using linkage and exchange to move research into policy at a Canadian Foundation. *Health Affairs* 2000;19:236-40.
10 Ross SE, Lavis JN, Rodriguez C, Woodside JM, Denis JL. Partnership experiences: involving decision-makers in the research process. *J Health Serv Res Policy* 2003;8(suppl 2):S26-34.
11 Dash P, Gowman N, Traynor M. Increasing the impact of health services research. *BMJ* 2003;327:1339-41.
12 National Audit Office. *Getting the evidence: using research in policy making. Report by the Comptroller and Auditor General*. London: Stationery Office, 2003.
13 Black N, Mays N. What is "development"? *J Health Serv Res Policy* 1996;1:183-4.

Online Firsts

Will help to reduce delays in publication of research findings

The *BMJ* is about to start posting its original research articles on bmj.com before they appear in the print *BMJ*. They will appear in a new section on bmj.com called "Online First." By early next year we expect all the research articles we publish to appear online first.

Like many journals, we are doing this because the research community wants results of studies to be publicly available as soon as practicable and because electronic publication makes it possible to remove some of the delays associated with print publication. At present papers are edited and often there are inevitable delays before they are published. At the very least they wait, unread, during the nine days between the time that we start to put a week's issue together and the time the print version lands on UK readers' doorsteps. However, we also think that online first publication prefigures a world of continuous online publication. The BBC updates its website every minute, and some basic science journals are already updating theirs several times a day. At present bmj.com's rapid responses appear every day, but with Online First we are embarking on a journey that in a year or two will probably see much more of the *BMJ*'s website being updated daily.

But for now we are not being that radical. We need to understand the implications and to find out what our readers and authors think. Our plan is to post research articles as soon as they are edited. We considered posting unedited manuscripts as soon as we had accepted them—which is what our sister specialist journals are planning to do when they start their Online Firsts next year—but decided not to for two reasons. Firstly, we conducted two small surveys among our authors, and, although almost half thought posting papers without editing was acceptable, a quarter preferred not to, and a further quarter thought this unacceptable. So for now at least we will continue to edit papers to our normal standards, with authors approving the edited version before we post them. Secondly, we foresaw that if we posted unedited manuscripts we might need to post corrected versions as we go through the editing process. Although we can do that, and will no doubt occasionally have to do so, we're not sure that readers are ready yet for constantly changing versions of an article.

For our ELPS (electronic long, paper short) papers, we will edit the long version and post that once the author has approved it. This will thus be the definitive version of that article. Readers of bmj.com can browse the Online First section, and Online First articles are also fully integrated into bmj.com—thus they will appear when readers conduct an online search of bmj.com or look in one of the website's 250 topic based collections. In addition, the posting of an Online First will trigger an email to readers who have asked to be alerted when articles on that subject are published. When we subsequently print the shortened version of that article in a weekly issue of the print *BMJ*, the long version will move out of the Online First section and appear together with the short version in that weekly issue—just as it does now. One advantage for print readers of earlier on line posting is that by the time we publish the print version we may also be able to print some of the initial reactions to the article alongside the print version (as our American version, *BMJ USA*, already does[1]).

The date of posting will appear on each Online First article. Electronic articles are also identified by a unique number—the document object identifier (doi)—and guidance on how to cite the article will appear in each article.

We know that authors want us to publish their articles as soon as possible. We're less sure of our readers' reactions—though faster publication of trials should help those who are doing systematic reviews and faster publication of systematic reviews should help clinicians by providing decent answers to clinical questions. If posting of research articles online first is a success we will aim to move to do the same to other sections of the *BMJ*.

Jane Smith *deputy editor, BMJ*
(jsmith@bmj.com)

Competing interests: None declared.

1 Smith JC. Drawbacks of primary prevention risk tables to assess cardiovascular risk in type 2 diabetes. *BMJ USA* 2003. http://bmj.bmjjournals.com/cgi/content/full/327/7418/E217 (accessed 24 Nov 2003).

BMJ 2003;327:1302