MEASURING THE IMPACT OF RESEARCH: HOW CAN WE SHOW RETURN ON INVESTMENTS IN HEALTH RESEARCH? (PART II)

KEY MESSAGES

- The Canadian Academy of Health Sciences recently proposed an evaluation framework designed to address specific impact evaluation questions about the value of health research and health research funding.

- Among the greatest challenges in assessing impact is the definition of “impact” itself, which can be different for every funding program. Defining the impact of health services research poses its own challenges — for example, it is often not feasible to define ideal policy- or decision-making impacts, since the research rarely yields unambiguous conclusions with obvious application.

- Case studies are emerging as a popular method for measuring the impact of health research, since they help to identify the factors that lead to research success.

Establishing a strong research base to support healthcare decisions has become the cornerstone of delivering optimal care. But conducting this research is costly, which is why there are intense pressures – particularly on research funders – to justify their spending by showing clear reputational, economic and societal return on investments, which go beyond a simple bibliometric measurement of research outputs. To help, the Canadian Academy of Health Sciences (CAHS) – this country’s equivalent to the Institute of Medicine in the United States and the Academy of Medical Sciences in the United Kingdom – has released its highly anticipated framework for measuring the return on investments in health research and health research funding. ii,iii

A New Framework

The CAHS undertook a major assessment in 2007 to define “return on investment” for Canadian health research. The assessment focused specifically on the four domains of health research: basic biomedical; applied clinical; health services and systems; and population and public health. The final report, released in early 2009, reflects the work of an international panel of experts, chaired by Dr. Cyril Frank of the University of Calgary.ii Building on a number of evaluation frameworks that exist nationally and internationally, i the panel proposed a framework that tracks impacts in five categories: advancing knowledge; building research capacity; informing decision-making; improving health and the health system; and creating broad social and economic benefits For each category, there are a number of indicators (a starting menu of 66 in total), many of which are validated. Research funders and
other stakeholders can select customized sets of these preferred indicators to address any particular program assessment, allowing them to customize their specific impact evaluation questions. Where necessary, agencies may also customize new indicators to meet their specific evaluation needs, using the report’s recommended-indicator resource and template.

Challenges

The challenges involved in assessing the impacts of health research and research funding are well-known. Implementing the newly proposed framework comes with its own set of challenges. As with other frameworks, this model is not intended to be followed word-for-word. Instead, it provides the basis for identifying what data should be collected, where and when, and how to perform evaluations of health research to ensure comparability and comprehensiveness. All of this requires significant time and money – an additional challenge for many research funders who have not previously devoted many resources to program evaluation. Perhaps the greatest challenges for users of the framework, though, will come in defining the expected impacts, prioritizing them, and choosing sets of indicators and metrics that adequately, appropriately and practically address the impacts.

Describing the cause-and-effect relationship between health services research and concrete outcomes also poses a unique set of challenges; for example, health services research rarely yields unambiguous conclusions, making it nearly impossible to define an ideal policy- or decision-making response. Steven Lewis, Pat Martens, and Louis Barre captured the greatest of these challenges in their commissioned report, one of many that informed the CAHS panel’s full report. The authors describe the recent experience of the Manitoba Centre for Health Policy and the Manitoba Health and Healthy Living surveillance system to estimate the impact of their deliverables, including return on investment. The experience was fraught with difficulties, such as estimating the duration of impact, and translating “avoided costs” to specific outcomes and cost-savings. The review also required taking a multi-method approach to track quantitative indicators, while also carrying out qualitative interviews. The Manitoba experience, however, is a helpful one, as it allows funders, producers and consumers of health services research to draw upon it in developing their own impact evaluations.

Future Directions

Through their assessment process and in developing the impact evaluation framework, the CAHS panel made a number of recommendations, mostly for Canadian health research funders. One strong message was the need for funders to collaborate to advance the practical, methodological prerequisites for measuring returns on investment in Canada – things like standardizing and refining methods to collect data routinely, building the library of impact indicators and metrics, and defining key health research impact questions. In the same way, the panel recommended that funders collaborate internationally to advance the global taxonomy of health research impacts.

Some of this international collaboration is already in progress; for example, Project Retrosight is investigating the payback on heart and stroke (cardiovascular disease) research, carried out over the last 25 years, in three countries – Australia, Britain and Canada (originally, New Zealand was also involved, but recently withdrew its
Internationally, case study narratives have arisen as one of the methods of choice for measuring the impact of health research. Case studies are regarded as helpful for identifying the factors that lead to research or implementation success. Researchers and research funders involved in Project Retrosight are preparing case studies based on research conducted in the early 1990s, as well tracking the outputs and outcomes of that research. The Heart and Stroke Foundation of Canada and the Canadian Institutes of Health Research are leads on the Canadian leg of this international study. All of the case studies will use a standard framework (an adaptation of the Payback framework), which will facilitate inter-case comparisons and analysis.

*Measuring the impact of research: What do we know? (Part I) was published in October 2008.iv*

**References**


vii. Canadian Institutes of Health Research. 2007. “It’s payback time: New international study to assess impact of heart and stroke research.”

**Further Reading**

Canadian Academy of Health Sciences.