

Keynote Address

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THE ROLE OF RESEARCH IN HEALTH SYSTEM REFORM

Thank you for the kind introduction Larry. I am delighted to have been asked to talk to your association today. I know that my subject, health system research, is probably far removed from the subject of actuarial research (except for those of you from the United States who deal with private health insurance as part of your research), but there is a common link.

As actuaries, you deal with the financial impact of risk and uncertainty – to help minimize losses associated with undesirable outcomes. So it is with the health system researcher and policy analyst.

There are enormous risks and uncertainties associated with major health system reform and part of the job is to advise on what to avoid based on the evidence thrown up by disastrous experiments in other jurisdictions and how to minimize at least some of the inevitable uncertainties and risks associated with major health system change.

The stakes are enormous. Health spending constitutes about 10 percent of GDP in Canada and close to 16 percent in the US. It is not only the largest social sector – bigger than education and the social service sector including pensions, unemployment insurance and welfare – it is the single largest sector of our economy.

There are also profound differences between the work-a-day reality of actuaries and health system researchers, analysts, managers and governors. According to the *Wall Street Journal*, actuaries have one of the best jobs in the world based on environment, income, employment outlook, physical demands, security and stress.

This is patently not the case for those who work in the world of Canadian health care, and the most dangerous position of all is at the very top – Minister of Health. First, the environment sucks. When in Parliament or provincial Legislatures, they face a daily barrage of questions about any alleged

shortcoming in the public health system – no problem is too small for an opposition party. When they walk out of the Legislature and into a media scrum, they face a barrage of hostile questions fuelled by “Dead Granny” stories. When they walk into the cabinet room, they face the hostility of their colleagues, angry that the Minister of Health is getting all the money that should, in their view, be going to them and their portfolios. And that’s just the environment!

What about income. Well, for this abuse, the minister’s income is about one-third what a medical specialist enjoys. Employment outlook is even worse – the average tenure for a Minister of Health is about 1-2 years – the worst record in job tenure in a profession notable for its lack of job security. The physical demands are enormous – 14 hour work days, seven days a week, seem to be the norm.

And stress! You try answering for a system in which you have virtually no direct knowledge much less managerial control. Talk about your risk and uncertainty. I can only hope that someday, some of you will have a health minister as a client to help in minimizing his or her risk.

Background and History

Because of my background, I have been asked to speak about the role of research in health system reform. I have spent part of my professional life directly in government dealing with, among other issues, health system reform at the provincial level here in Saskatchewan. I then spent close to two years as the Executive Director of a federal Royal Commission on the Future of Health Care in Canada – more commonly known as the Romanow Commission.

Since January 2003, I have been mainly a health system scholar (I still spend a little time advising governments and international organizations when they want me and I have the urge and the time). As such, I have been very lucky to be able to work closely with an international group of scholars in Europe and the United States.

It is only appropriate that Regina, Saskatchewan, is my home base because this is the birthplace of universal public healthcare in North America, one of the major health system changes in the 20th century, at least in the Americas.

It was here in the provincial capital, in 1947, that the government under social democrat premier Tommy Douglas implemented universal public hospital insurance, one year *before* the National Health Service was introduced in Great

Britain. This then became the model for national hospital insurance implemented throughout Canada over a decade later.

It was here too, in 1962, amidst a major confrontation with organized medicine and the business establishment, that the provincial government implemented universal medical care insurance to cover all physician and other medically necessary costs beyond hospitals for every resident of the province – without user fees or copayments. It was designed in this way to ensure that no one would be dissuaded from seeking medical attention as early as possible in order to minimize the pain and suffering (and cost) associated with more heroic treatments and interventions downstream. Again, within a decade, the Saskatchewan experiment became the Canadian model of Medicare.

I am proud of this history because it demonstrates that ordinary people in a rather small place, far from the political centre of the country, are capable of accomplishing extraordinary things. They are capable of innovative experimentation and, when it succeeds, of seeing the experiment become established practice in other jurisdictions. No wonder that this province is perceived as punching well above its weight – 3 percent of the Canadian population – in its national influence.

Research is an important part of this story.

First, to the greatest extent possible, the senior civil service advising the provincial government on health system change studied how things were being done in other places, particularly Western Europe.

Second, the provincial government did not hesitate to bring in experts from other provinces and countries to help shape the new public health system.

These experts included: Dr. Henry Sigerist from Johns Hopkins University who spent almost two months in 1944, immediately following Douglas's election victory, surveying and recommending; and Frederick Mott, a New Deal medical researcher from the U.S. Department of Public Health.

What is Research and Why is it so Essential?

In the absence of good research and analysis, decisions are made on the basis of intuition, unexamined assumption, and fixed ideas. I would summarize this as the "I believe..." approach to decision-making. The less information that individuals have, the more likely they are to rely on belief rather than evidence

in making decisions – including the people who govern countries, provinces and states.

Evidence is research with probative value; that is, value to the questions asked of the research.

But what is research? We all assume we know what it is. Perhaps we do, but try defining it to a non-researcher – your typical decision-maker, for example, whether in a corporate boardroom or a government cabinet room.

I always start with the Oxford (Canadian) Dictionary which has two definitions for research:

- The systematic investigation into and study of materials, sources, etc., in order to establish facts and reach new conclusions.
- An endeavour to discover new or collate old facts etc. by the scientific study of a subject or by a course of critical investigation.

Now, I know the line can be very fuzzy at times, but I do think there is a real difference between pure and applied research.

Pure research answers a conceptual or logical question thereby allowing us to think more clearly and more accurately without having any necessary connection to a societal problem.

Applied research answers a question or challenge or conundrum that has the potential to solve (or mitigate) a societal problem. Using this distinction, I define applied public policy research as answering a question, challenge or conundrum that gets to the bottom of a policy or administrative problem so that improvements can be made or mistakes corrected.

What separates good applied research from poor research:

- How systematic we are (research design)
- How carefully we define the question or problem (casting the hypothesis)
- How skeptically we review previously gathered evidence
- How prepared we are to obtain new data or information that can potentially shed new light on the problem, including data or information from other contexts and countries in which different institutions and assumptions operate

- How we use our own judgment and experience in weighing this evidence, including that drawn from other contexts

I emphasize the latter points because proper health systems analysis depends on solid comparative research.

Also, the level and type of health system analysis required will determine the nature of the evidence. When it comes to contemplating major change in terms of the conditions of access to healthcare, for example, this likely requires major changes in funding and payer arrangements.

This is not the only type of health system reform but it is generally the first when it comes to public policy, whether it is Canada when universal hospital and medical service insurance was introduced, or the United States when Medicare and Medicaid were implemented. And judging by the current political debate in the US, health system reform focusing on access and payment has taken a new lease on life. At least two basic types of research are required when contemplating this type of public policy shift.

One is very high-level “directional” research. What do the current governing politicians want in terms of a change in access, who are they willing to challenge (and for how long), and what are they willing to accept in terms of difficult political compromises? What do the current providers of healthcare want and expect in terms of responding to the new arrangements in access? And most critically of all, what do the people – the citizens of a country or the residents of a state or province – want in terms of access and what are they willing to pay not only for themselves but for everyone else?

If the governing politicians are clear on direction, then little or no research may be necessary to determine what they want. Not much research is generally needed to determine the views of powerful and well-funded provider organizations (think AMA and CMA) although those on the front-line may have a different view and not every provider or manager is so well represented. But you definitely need to get substantive evidence concerning the population’s desire for changes in access and the tradeoffs and compromises involved in various configurations of access and payment.

This kind of research involves understanding fundamental values and goals and, as difficult and as slippery as it is to obtain evidence on this, try you must. While public understanding and support is not a sufficient condition for major health system change, it is a necessary condition for a sustainable change in direction.

As actuaries engaged in the research enterprise, you will readily appreciate the second basic type of evidence needed for health system reform. You need evidence on alternative payment systems and their differing impacts on patients, providers and government. They must be studied, and the evidence drawn, sometimes from institutional environments quite different from our own.

If the payment system has never been attempted on a national scale, chances are some form has been used for some human activity somewhere in the world and research means finding and understanding the lessons from this experience.

You also need to research the impact of increasing (or decreasing) access to services in terms of costs (public and private, organizational and individual, obvious and hidden) and health outcomes for individuals and the population as a whole (as well perhaps of marginalized sub-populations).

This evidence can be based on historical data drawn from your own population and institutional environment and/or other populations or health systems. Needless to say, great care must be taken with data drawn from other countries with different institutional mechanisms and, perhaps, different cultural and other practices and values.

I had experience with both basic types of evidence in the Romanow Commission. On the directional evidence, we did the usual thing a Royal Commission is expected to do – we conducted public hearings.

But we were very suspicious of the potentially biased nature of public hearings, weighted as they are to well-funded stakeholder groups that often use the opportunity to pursue their narrow economic interests – and more often than not, defending aspects of the status quo which benefit them irrespective of the cost to society. So we reserved one-half of the time to members of the public simply representing themselves and their individual views and concerns.

But the most important thing we did in terms of directional research was to initiate a massive Citizen's Dialogue to determine, on a more scientific basis, where Canadians wanted their public health system to go. Far more than a deliberative dialogue, this exercise required 500 randomly selected Canadians – 12 groups of 40 each held at sites throughout the country – to go through a one day exercise in which they had to face the difficult tradeoffs and compromises involved in either extending or retrenching public coverage including the public and private impacts in terms of funding.

In some cases, the results were a great surprise to the experts – whether governments, providers or health system scholars.

One surprise involved the persistent view that individuals were abusing – or taking advantage – of Medicare (contrary to what governments and most experts have been saying for years). During the day, many means were suggested to deal with the problem but by the end of the day, a consensus appeared: use electronic health records to figure out the abusive patients and providers.

In their minds, Medicare was a public service and it should be subject to public scrutiny, a conclusion that struck fear into the hearts of privacy commissioners in the country.

Compared to this, our Royal Commission’s more “technical” research on funding and payment methods was straightforward. To begin with, we did an extensive review of the research already done. Then we carefully assessed the gaps that remained. We then hired researchers inside and outside Canada in addition to deploying our in-house research team.

On some particular difficult and contentious issues, we held expert roundtables in London (public-private partnerships), Paris (co-payments and user fees), Washington, DC (health system cost drivers), and Toronto (financing options) to bring together the leading edge experts in the world. These were all directed to getting the best research – and hence evidence – in as short a time as possible.

We were able to subject most of the externally-contracted research through peer review using an arm’s-length Institute of the Canadian Institutes of Health Research. We ultimately published some of this work in three volumes through the University of Toronto Press.

Working Backward: From Policy to Analysis to Evidence to Research

Public policy research in general – and health systems research in particular – is rarely conducted on the basis of an individual researcher’s curiosity in isolation of the needs of policy makers. This is probably true of most applied research including the various types of actuarial research conducted by all of you. I do not see this as a deficiency; indeed, I think it is in the nature of all applied intellectual work – it serves, or should serve, real world needs.

But it is useful to understand the causal relationships in such research. Rather than beginning with the individual researcher and his/her curiosity, it generally begins with a societal problem, puzzle or dilemma.

In my world of public policy, the problem is there to be solved by the democratically elected government whose *raison d'être* is to make things better for us as members of a national or more local community.

But before the problem can be solved, we need to understand its essence and its causal relationships. This requires in-depth conceptual and statistical analysis that is predicated on good quality evidence. And good quality evidence is, in turn, dependent on effective research.

I have presented this in a very linear way but it can be seen more as a virtuous circle if you like. Problems require analysis which requires evidence which requires research which, quite often, refines or redefines the problem which requires new analysis which requires additional evidence which necessitates a new line of research.

You get the idea. It is a never-ending iterative process.

As someone once said, we never truly solve a health system problem. In most cases, we are simply replacing an old problem with a new problem. But this is as good as it gets in public policy. Indeed, I would call this progress.

Thank you for your attention this morning. And welcome to Regina, Saskatchewan, the birthplace of Medicare in Canada. I look forward to answering any questions you might have.