

CMA/CSLS Improving Measures of Health Care Output & Outcomes in Canada

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Château Laurier

Big Picture Issues in Health Care that are Starved for Information

(16 minutes)

Good Morning.

Before I begin talking about health care and information needs, I want to thank several organizations for the critical and top quality research that they have conducted. Their hard work has taken us a long way down the road to understanding what is happening in our health care system.

These organizations include the Canadian Institute for Health Information, as well as Statistics Canada and the Canadian Institutes of Health Research—in particular the Institute of Health Services and Policy Research, and the Institute of Population and Public Health, along with CIHR's 11 other Institutes.

I have been asked to speak to you today about 'Big Picture Issues in Health Care that are Starved for Information.' It's a rather large topic, and bit difficult to cover in just a few minutes.

Of course everyone is preoccupied with wait times, an issue which we are going to have to get right if we are to sustain our health care system and ensure it provides Canadians with the timely access they need.

The narrow focus on the five priority areas—diagnostic imaging, joint replacement, sight restoration, cancer, and cardiac care—has led to concern that resources may be crowded out for other health care services.

Dr. Brian Postl, the Federal Advisor on Wait Times, voiced this possibility in his July 2006 Final Report, stating, quote:

“While it is important to dedicate resources to shorten wait times for procedures and interventions that are currently experiencing worrisome waits, it is also important to ensure that other diseases and conditions do not become the next areas to see wait times increase.”

It is something we will have to guard against: in a recent survey of 4000 physicians by the Canadian Medical Association many reported seeing the emergence of “have” and “have not” disciplines.

In contrast, Dr. Alan Hudson, Lead of the Wait Time Strategy in Ontario, found that the average number of *surgeries outside the priority areas* increased by almost 2%, compared with a 7% increase for priority area surgeries, from 2004/2005 to 2005/2006.

Other “big picture” issues are the impact of several disorders that will exert increasing pressure on our health care system, as well as society at large. These include such things as Autism Spectrum Disorders with their mysteriously exploding rates of prevalence; or mental illness and addictions that have their own set of devastating and pervasive impacts; or even the effect of our aging population.

But underlying all of our questions related to the health care system is a much larger issue: the lack of support for health science research in Canada.

Last week in Toronto, I had the pleasure of listening to Industry Minister Jim Prentice at the Gairdner Foundation International Awards. He stated that Canada is a leader among developed

nations in funding post-secondary education and research. OECD data supports this assertion

Paradoxically, an editorial from the *Canadian Medical Association Journal* of October 9th stated that we were facing a chronic shortage of funding for academic health research. This year, Canada is forecast to spend \$828 million, or \$25 per capita, to be funnelled through the Canadian Institutes of Health Research. On a per capita basis, that's almost one-quarter of what the U.S. will spend this year, which is \$96 a person.

There is a caveat to this comparison: while the CIHR is the major federal funding agency for health research, it is not the only one. But the point, as the editorial states, is that we must “*vastly increase research outlays to the level provided by leading Organization for Economic Co-operation and Development nations.*”

The editorial also described science research as, quote:

“A fundamental public good: it makes a difference in our understanding of disease and provides the highest quality evidence for patient care.”

I agree.

The editorial went on to say that research was “*the engine for ingenuity and innovation in the health sector.*” I agree with this as well.

The bottom line is that research is a necessity.

On the flip side, inadequate health research leads to cost-ineffective decisions about our health care system. It means that we do not produce the outputs or the outcomes that we should.

Ultimately, inadequate health science ripples its way through our society and economy, because we all pay if the population is not healthy.

Those of us with a background in science and academia have an obligation to provide the government with the information it requires to make health research the priority it should be. Once we have provided this information, the necessary funding will flow.

Of course, government funding for research is only part of the picture—it's time for the private sector to step up to the plate as well.

Currently, 54% of research and development in Canada is conducted by business, which is well below the OECD average of 68%. Furthermore, we rank 14th among the OECD nations in business expenditures on R&D as a percentage of GDP.

This is not good enough. We need to do better if we are to continue developing the knowledge-based economy that we talk about so freely.

Economic evidence links private-sector research and innovation to growth. The OECD estimates that every percentage point increase in business R&D as a proportion of GDP leads to a 12% increase in income per person over the long run.

There is solid health research taking place, and I refer you to the work being undertaken by the organizations I mentioned earlier. Unfortunately, the value of the research is often not understood outside of one's own community. That's because we speak different languages, we have different foci and agendas, and we operate in different worlds.

I want to congratulate the Canadian Medical Association and the Centre for the Study of Living Standards for bringing together economists and medical scientists here today. We very much need each other.

Such ties between the many different groups interested in health care research, and the resulting benefits these ties bring to the economy, could be solidified through a national Knowledge Translation Network, modelled on the successful Medical and Related Sciences or MaRS complex at the University of Toronto. MaRS is a gleaming new convergence centre, home to U of T's Innovations Foundation and potentially linking venture capitalists, teaching hospitals, legal firms, pharmaceutical companies and so on.

A similar Canada-wide network that would connect our universities, research institutions, business schools and industrial partners could also spawn new products and build our health care sector.

We must convince the public at large of the need and value of health research. This would help elected officials justify a major increase in investment.

This week's *Canadian Medical Association Journal* published a study of Members of Parliament's knowledge of and attitudes toward health research and funding. The conclusion states, quote:

“Members of Parliament and their senior aides supported health research and thought health research funding was too low. However, they did not consider health research to be a high priority for Canadian voters and were underinformed about the issue.”

MPs generally have a pretty good grasp about what is going on in Canada. But the issue here is that they don't always think medical research is important to Canadians. Let's remember that they are the ones who approve the CIHR's funding each year, as presented to them in the Estimates.

The key question is what we need to do to make it a higher priority for Canadians.

The October 9th editorial I referred to earlier stated that research *“matters to everyone: taxpayers, parliamentarians and physicians.”*

Quite frankly, it will only matter to people if they know what the research is about. Only then will concern translate into financial support.

I have had the honour, in recent years, of taking part in several in-depth studies at the Senate of Canada. These have covered such issues as palliative care and end of life issues; the federal government's role in the health of Canadians; mental health and addictions; as well as autism.

I am also currently Chair of the Senate sub-committee examining population health. It is from this position that I lay out another issue that that needs to be considered today—a definite “big picture” item that is suffering from an information gap—and that is population health, or the social determinants of health.

Information available at this time indicates that the appropriate adjustment of about a dozen of these determinants to the norm will have a huge impact on the population cohort affected. Among these determinants are social status and education, working conditions, and social support networks.

As we have heard during our committee meetings, these determinants are intertwined and interact with each other in a complex and dynamic way, making it very difficult to evaluate their relative importance.

But their overall importance is best summed up by Monique Bégin, a Canadian Commissioner at the World Health Organization and a former Minister of National Health and Welfare, who told the Committee that “*status is more important than genetics, smoking or even money.*”

Population health is critical to our planning in the health care sector. There is no doubt in my mind that many of our decisions in the future will be made on the basis of population health.

While we are beginning to understand the strong ties between social determinants and health, we have a long way to go. Last month’s CIHI report pointed to some of the information and research gaps, including:

- The relative effect of the physical environment on health compared to other health determinants;
- How individual and community characteristics interact to affect health outcomes; and
- The impact that various initiatives have had on overall health.

Work is also needed to understand how best to translate this information into policies that will improve the health of Canadians. Dr. John Lynch, from McGill University, called for such policy-relevant research when he came before the Committee on March 28th, and stated quote:

“I would also suggest that there is a fairly poor evidence base on what are the most effective and the most cost-effective interventions. I do think we can build a better policy-relevant evidence base, and that should be an active research priority in Canada.”

Quality research in population health is well underway, but as is often the case, much more research is needed.

My own interest in the field has been driven by two concerns: the first was simply trying to understand the gross inequities in the health of Canadians of different population groups. The second was the high costs that arise when a given population group is unhealthy. Presumably, these costs can be cut as we determine how best to prevent sickness.

In response, I have come to see the need for a study of Canadian cohorts. While I do not have the expertise needed to design and execute such a project, I throw the idea out to an organization such as the Institute of Population and Public Health and hope it rises to the challenge.

I suggest it would be useful to study cohorts by decade, for example from birth to age ten, age ten to 20 and so on throughout all the stages of life, including end of life. This would enable us to come to a scientific understanding of issues related to health as well as employment. It would also allow an assessment of health care services that would optimally serve an aging population.

I recognize that the results would not be available for years to come. But it is this kind of understanding of population health that before too long will come to form the basis of our health care planning strategies.

In the context of today's discussions, we need to consider how to measure the impact of population health and medical science on health care output and outcomes.

The outputs of our health care system arise from its activities—the number of MRIs taken and analyzed, surgeries, and physicians visits. The outcome of health care is a healthier person, a healthier society. These distinctions—inputs, activities, outputs and outcomes—are not always clear and in some cases they are not terribly helpful.

My understanding of how we currently measure health outputs is by using inputs as a proxy. Factoring population health into this equation, or research in medical science would result in time lags of years or even decades as new discoveries are developed and work their way through the health care system.

One example of how information has led to vastly improved outcomes lies in the experiences of the Cardiac Care Network of Ontario.

The CCN was founded under the former provincial Minister of Health Elinor Caplan. I spent a great deal of time with the development of the system during its early years.

The CCN's core role is managing cardiac waiting lists. Each hospital ensures that patients are given a wait time based on their clinical condition. They are moved up the waiting list if their condition worsens and they have the option of moving to other centres where waiting lists are shorter.

The results of implementing the network have been a dramatic improvement in wait times and reduction in patient mortality on waiting lists.

With time, equity has been achieved in wait times across the province for a number of cardiac procedures. An example is the case of elective coronary artery bypass graft surgery: regional variations in median wait times for CABG was cut in half, from 40 days between the 2nd highest and lowest in the first quarter, 2004/2005 to 20 days in the last quarter 2006/2007. During the same time, regional variations for elective catheterization went from 63 days between the 2nd highest and lowest to 10 days.

Wait times have been drastically reduced throughout the province. Median wait times for elective percutaneous coronary intervention have dropped from three days in 2004/2005 to one day for 2006/2007. In addition, in 2006/2007, all recommended times for urgent, semi-urgent and elective catheterizations and surgery were met in every cardiac care hospital in Ontario.

I recall the tremendous apprehension among bureaucrats at the Ontario Ministry of Health that we would have a dramatic increase in the volume of surgeries. In fact, the reverse occurred when indications for CABG were standardized across the province.

Furthermore, when compared with the State of New York, Ontario achieved the same outcomes with half the volume.

There are no easy answers with any questions about health care, which is why we need events such as these. No doubt it will prove to be a very interesting day as we grapple with some of these issues.

This morning we will be looking at current methodologies and new approaches for measuring health care, while this afternoon our focus will be on the future—visions on how to do it better and how to turn those visions into something workable.

The talent in this room is top notch and the breadth of experience exhilarating. The economists, medical scientists and physicians that are present, will all be challenged today as we wrap our minds around each other's specialties. I'm looking forward to the discussions that lay ahead.

Thank you.