THE CHALLENGE

The Canadian Academy of Health Sciences (CAHS), which provides timely, informed and unbiased assessments of urgent issues affecting the health of Canadians, has recently launched a major Assessment on Health System Transformation to Meet the Burden of Chronic Disease.

This paper is designed to provide clarity and direction for the expert panel taking on the challenge of conducting this assessment. It describes the goal of the panel, presents some key areas of focus and defines the scope of work within this assessment.

The Academy was created in 2004 and modeled on the Institute of Medicine of the United States. The process of the CAHS's work is designed to assure appropriate expertise, the integration of the best science and the avoidance of bias and conflict of interest, the latter being a frequent dynamic that confounds solutions to difficult problems in the health sector.

CHARGE TO THE PANEL

The purpose of the Assessment is to answer one overarching question: *What will it take to improve outcomes for patients with chronic disease in Canada?*

The Expert panel will create a strategy to improve health outcomes for patients with chronic disease through reorientation of Canadian health services and better utilization of system resources from policy to point-of-care within the next 5 years.

The assessment will examine:

- What are the key features of successfully implemented, comprehensive approaches to chronic disease management?
- What can we draw and build on from system changes outside of Canada and outside of health care?
- How can we use complex adaptive system theory to create effective change in the Canadian health system?
- What are the key points of leverage in the Canadian health system for better outcomes for patients with chronic disease?
- What five priorities for immediate action should be taken?

The work of the Expert Panel will be patient focused and action oriented. The resulting strategy will close the gap between the good thinking about chronic disease management and effective action in the system.

The investigation will begin with the assumption that the health system is complex and adaptive, and will explore the kinds of questions that generate connections between different issues and arenas of actions. Another assumption is that an integrated approach to chronic disease is desirable—one that meets the needs of patient with multiple conditions and considers the full continuum of services in the health system.

BACKGROUND AND CONTEXT

Burden of Chronic Disease in Canada

One-third of Canadians – about 9 million people and 77% of Canadian seniors – have at least one of seven chronic health conditions, including arthritis, cancer, chronic obstructive pulmonary disease, diabetes, heart disease, high blood pressure, and mood disorders.

Half of Canadians with multiple chronic diseases report moderate to severe disability in daily living. Patients with chronic diseases use a large share of health care resources and account for 67% of all visits by community nurses, 51% of all visits to family doctors, 55% of all visits to specialists, and 72% of nights spent in hospital.

Effectively and efficiently managing the health of these individuals is an increasing challenge for Canada's health care system. Organized and integrated chronic disease management is often not available to Canadians—especially for people with multiple chronic diseases.

Canadian Health System

The panel will lay out a course of action specifically built into the Canadian system. The following are some features of the Canadian health system of relevance to this work. The juxtaposing demonstrates the complexity of the Canadian health system and the types of connections which the panel may want to explore.

- 50% of all physicians work in primary care and most of their patient visits are chronic disease related. The publically funded Canadian health system focuses resources in the acute care system, not chronic and community based needs.

- Regionalization of health services has occurred in most parts of the country, enabling population need based planning across the continuum of services. The health system is primarily reactive to patient crisis, rather than proactive to population needs.

- Universal access to health services is a shared value of almost all Canadians. People living in low income neighbourhoods have lower life expectancy than those living in higher income neighbourhoods.

- Several organizations and leaders have a statutory role with responsibility for quality of care and for protecting the public interest (e.g. professional regulatory and accreditation bodies, medical advisory committees, and medical health officers). There is weak accountability for the health outcomes of patients living with chronic illness, as is evidenced by the 2/3 of Canadian medical admissions to emergency departments which result from the exacerbation of chronic illness.

- Canada is internationally recognized as a leader in tobacco control and for other health promotion initiatives. The rate of daily tobacco smoking among aboriginal populations is more than double that of the general population.

- The health system is largely composed of silos, clustering health professionals by discipline and having a single disease or organ focus.

There is a move to collaborative practice and inter-professional education.

- Innovations in primary care are underway in a number of jurisdictions across Canada; Canadians do not yet have the electronic health record that will support integration.

These are a few of the key features of the system – the panel will identify, explore and draw on other relevant factors.

Need for Immediate Action

We have a strong system with many mechanisms enabling optimal outcomes for patients with chronic disease, yet there is still a lack of universal implementation of interventions which are known to be effective.

Our system as currently focused does not always enable or encourage best practice. For example, there is clear evidence that monitoring **ALL** (**A**SA, **L**isinopril, **L**ovastatin) compliance for patients who are 55+ years old, with diabetes/CV disease results in a 50% reduction in death over 8yrs. Benefits start immediately and persist for all major complications – in addition, there is greater benefit than controlling HbA1C which results in a cost saving $6000/pt/yr. But this is not generally done.

This simple example is one of many, many scenarios in Canada where our approach limits our outcomes for patients with chronic disease—there is a gap between what known about chronic disease management and effective action in the system.

Several researchers have observed that the Canadian health system is a complex, adaptive system. Complex adaptive systems require approaches to change that recognize that large innovations can come from small shifts (and vice versa), and that what emerges through relationships and connections is usually more significant and effective than overly managed, centralized change.

Through application of complex adaptive theory, the previously described scenario could stimulate the panel's exploration of questions like:

- How do we create a health system where this and other evidence based practice is the norm?

- How can the current leadership be leveraged to create changes at the population and system levels—improved patient outcomes as well as mitigation of the pressures on resources and capacity in the health system?

The panel will use the best evidence available and this line of enquiry to: create a strategy to improve health outcomes for patients with chronic disease through reorientation of Canadian health services and better utilization of system resources from policy to point of care within the next 5 years.

The burden of chronic disease is growing: Patients are suffering; the health system is stretched beyond capacity. It is time to challenge the status quo in the interest of improving outcomes for patients with chronic disease in Canada.