

St. Boniface Hospital Research

Responses

1. Economic Recovery and Growth

Given the current climate of federal and global fiscal restraint, what specific federal measures do you feel are needed for a sustained economic recovery and enhanced economic growth in Canada?

Two factors are required in order to stimulate recovery and renew growth in the economic sector in Canada: reduce expenses and increase income. The Canadian economy must find new opportunities to create revenue while at the same time reducing costs through increased efficiency. We believe that both of these factors (increasing revenue opportunities and decreasing costs) can be identified best within the health care system. The health care system is a logical target for Canada to focus upon to achieve a sustained economic recovery and stimulate economic growth. Why? The answer is simple. The health care system is currently one of the largest expenses within the Government of Canada. Health care costs have escalated at an alarming rate over the last few decades in Canada (and every other country). There is no reason to believe this trend will stop in the foreseeable future. The expenses associated with new medical equipment, the development of and demand for new effective drugs, the salaries of health care personnel like doctors and nurses, and other associated costs of health care are expected to continue to rise. Economists have predicted that the majority (if not all) of our Government's income will be consumed by health care costs within 25 years. No money will be left to support the maintenance of our roads, social welfare, the prison system, foreign aid, etc. This scenario is clearly not sustainable. Instead, we must find new revenue streams within the Canadian health care industry by creating commercialization opportunities and by identifying innovative approaches to reduce health care costs through increased efficiency. Our objective is to create a Centre that will: a) help new Canadian health care companies to market new medical devices and create commercialization opportunities for their products; b) foster novel revenue streams to support hospitals, and c) offset the rise in health care expenditures by specifically identifying and implementing the innovative approaches to insure health care delivery is more efficient than ever before. This multi-pronged approach in the health care sector will lead to sustained economic recovery and stimulate economic growth in Canada.

2. Job Creation

As Canadian companies face pressures resulting from such factors as uncertainty about the U.S. economic recovery, a sovereign debt crisis in Europe, and competition from a number of developed and developing countries, what specific federal actions do you believe should be taken to promote job creation in Canada, including that which occurs as a result of enhanced internal and international trade?

This proposal is seeking for the establishment of the Centre for Health Care Innovation in Canada (CHIC). At present, there is a huge gap in the commercialization of health technologies. Many small to medium size entities (SMEs) possess excellent ideas to create new products in the health industry. However, they do not have the expertise to obtain regulatory approval, design appropriate studies, conduct the studies, validate the results, and implement ethical guidelines for human testing. CHIC will aid these Canadian companies to bring innovative health ideas to the marketplace leading to increased commercialization and job creation. Instead of the health care sector draining dollars from our economy, it will generate new revenues. CHIC will employ expertise in these key research areas to allow CHIC to help these SME's. Recently, there has been tremendous growth in developing countries in the

above areas as Companies seek to conduct trials and assessments in jurisdictions such as Russia, China, and India. Instead of work going to these countries, we can attract such work to Canada. Furthermore, more job creation is to be expected once the Companies are able to gain access to international markets. In this regard, the personnel of CHIC will be sufficiently knowledgeable and experienced in gaining regulatory approvals not only for Canada but also major international markets (US, Japan, China, Europe, Brazil, etc). CHIC will also create new jobs by recruiting expertise from the business community to develop new ways to generate funds (i.e. build a seniors' residence on Hospital grounds to generate rental revenue to supplement Hospital income). This will stimulate the business sector and construction field and, ultimately, reduce health care costs. CHIC will also utilize the LEAN system that is utilized in many industry sectors (i.e. the car industry) to reduce costs through increased efficiency. It is estimated, for example, that as much as 70% of a nurse's time is spent moving and searching for items needed for health care delivery. Reducing this time to allow the nurse to manage the patient instead will lead to significant benefits in patient care, staff satisfaction, financial efficiency and performance.

3. Demographic Change

What specific federal measures do you think should be implemented to help the country address the consequences of, and challenges associated with, the aging of the Canadian population and of skills shortages?

Canada is facing a longevity revolution, with a remarkable increase in life expectancy in the last decades and an expectation that this segment of the Canadian population will continue to expand. Not only will the older population groups (i.e., +65) get larger but particularly the +85 sector is expected to grow in the years to come as life expectancy increases. Not only are the numbers going up, but so is their share in the population. Fostering a research environment at CHIC will allow for greater innovative medical products, procedures and methods to assist an elderly population to remain healthy and active in the workplace. The greater efficiencies to be realized by the LEAN management system will reduce waiting lists for medical procedures, waiting lists that are usually filled with an aging patient. The testing of life-style agents, point-of-care and in-home devices will allow the elderly to remain in their homes for longer times and reduce the strain on the health care system. The creation of a highly skilled workforce at CHIC to conduct and manage clinical trials and basic science investigations in the life sciences will not only help CHIC but represents a valuable training ground for industry across the country in related fields. Establishing a valuable expertise of LEAN management within a hospital environment will create a unique expertise not only in Canada but one that would be in demand internationally as well. This will not only address a skill shortage in this field in Canada but provide business opportunities to teach this expertise to hospitals throughout North America.

4. Productivity

With labour market challenges arising in part as a result of the aging of Canada's population and an ongoing focus on the actions needed for competitiveness, what specific federal initiatives are needed in order to increase productivity in Canada?

A federal sponsored review in 2011 accurately identified many of the strengths and weakness of Canada's Science and Technology Strategy. It is well accepted that Canada can do more to translate health research into practice. Currently, the innovation strategy of many Canadian SME's and research institutions is very strong. However there is a definite gap that needs to be addressed. This gap involves the actual steps needed to get a product, method or procedure accepted at the targeted end (i.e. on patients (health care) and in the marketplace). Some of the limitations here are the conduct of appropriate tests, validation, trials and regulatory and ethical authorizations. Furthermore, most Canadian SME's and health research institutes have limited resources and therefore cannot have the skills necessary to narrow the innovation/developmental gap. CHIC will contribute to SME's and the

research efforts of research institutes by having the necessary expert personnel on staff to offer advisory services to efficiently obtain their stated objectives thereby eliminating the current gap. The creation of intellectual property will improve revenues for industry and ultimately improve productivity in the life sciences sector. CHIC will be a one stop shop for health technology development that will subsequently be developed into either commercialization opportunities or implemented into existing health care institutions. Unlike many technical labor skills sets which have to be filled through immigration, Canada already has the necessary graduates that have the basic knowledge that is required to be trained to become proficient enough to be employed in academia, government, or private sector. Increases in the number of patents, inventions and innovations of health products emanating from academic/health care facilities and Canadian SME's will inevitably result in enhanced productivity and the benefits of generating an export market in the life sciences field instead of one that is dominated presently by importing products into Canada. CHIC promises to serve a pivotal role in improving Canada's competitiveness and productivity by assisting Canadian SME's/research institutes in bridging the gap between knowledge and product implementation. This will ultimately improve our global competitiveness in health innovation.

5. Other Challenges

With some Canadian individuals, businesses and communities facing particular challenges at this time, in your view, who is facing the most challenges, what are the challenges that are being faced and what specific federal actions are needed to address these challenges?

Canadians are expecting the same or superior level of health care despite Canada's financial challenges. Two broad approaches can be taken to overcome these challenges: 1. Utilize existing systems more efficiently. Hospitals can study in a systematic way the concept of LEAN management. LEAN management, originally pioneered and mastered by the Toyota Motor Company in Japan, is a system of enhanced efficiencies. The principles of LEAN are simple - i.e. continuous improvement. This system can save tremendous resources (both dollars and energy). The challenge for implementing this system has been traditionally a lack of long term vision as well as not wanting to disrupt or change the current flow of health care delivery. 2. The second approach for solving the financial challenge that we are facing is to use the existing hospital research infrastructure to assist Canadian businesses to be innovative and bring new products to fruition in the market place. Currently, there are numerous programs that contribute to the R&D continuum. The problem we face is that there is an unfilled need for health product development. For example, while there is assistance at some stages-Research phase (CIHR, NSERC); Development (IRAP, SRED); there are virtually no federal or provincial programs that can assist with personnel support for clinical assessment, regulatory approvals and international registration. This challenge exists despite the fact that these steps are absolutely necessary before commercialization can occur. New health products will directly benefit Canada by improved care and wealth generation. The Federal Government can address the two challenges identified above by taking a leadership position by investing in effective programming and personnel support (CHIC) instead of buildings.