



THE ASSOCIATION OF FACULTIES
OF MEDICINE OF CANADA

L'ASSOCIATION DES FACULTÉS
DE MÉDECINE DU CANADA

Health innovation in Canada: Optimizing health and Canada's prosperity

January 2020

Public Report

The cost of Canada's health care system continues to increase, and may not be sustainable. Of the over \$250 billion invested in health care per year, less than 2% is spent on research and innovation. A new \$250 million investment to develop an innovative and learning health care system will quickly pay for itself by reducing what we need to spend on health care, growing Canada's economy and creating knowledge economy jobs.

The Association of Faculties of Medicine of Canada (AFMC) is the voice of academic medicine and represents Canada's 17 medical schools. The Association of Faculties of Medicine of Canada firmly believes that a transformation to an innovative/learning healthcare system is the cure for sustainability.

Collectively, AFMC's doctors and scientists not only provide care to patients and teach the next generation of doctors and scientists but also do research to improve healthcare. This research includes ground-breaking discoveries that lead to new drugs, vaccines, devices, tests, advice and systems, collectively called innovations. These innovations alleviate suffering and prolong productive life. In recent years, Canadian research has resulted in innovations in areas as diverse as cancer, ageing and infectious disease.

Potential innovations must go through many steps before they are delivered to patients in our publicly-funded health care systems. These steps include pre-human research to see if an innovation is likely to work and be safe to use in humans, "first in man" studies to obtain early results, head to head randomised clinical trials compared to usual care to obtain more definitive results and then pooling of randomised trial results to get definitive answers. Next, if innovations work and are safe, we need to make sure that we can deliver them to patients and that these innovations provide value for money. Finally, if an innovation passes all these stages, we should be certain that they are being rolled out throughout Canada so that all Canadians can benefit.

Randomised clinical trials allow a direct head to head comparison between healthcare interventions and innovations to see which is truly better. While one might think that all currently used healthcare interventions have been tested in randomized clinical trials, it turns out that only 1 in 3 healthcare interventions currently in use have top-level evidence to prove that they should be used. We need to do randomized trials on many existing practices to be sure we should keep doing them.

Developing "Made in Canada" health care solutions is good in many ways. Such innovations can be exported outside Canada to generate Canadian wealth to increase our tax base and provide good "knowledge economy" jobs for Canadians. Two important recent government reports have suggested ways that Canada can lead the world in healthcare innovation. It is time to implement the changes suggested in these reports to jump-start healthcare innovation in Canada.

AFMC is asking Canada's governments to kick-start health care innovation by:

- 1) **Supporting pioneering research with grants, facilities and people to do pre-human studies and "first in man" studies** for early development of Canadian health care innovations. This would strengthen the partnership between Canada's medical schools and Canada's health and biosciences industry, propelling both to the world stage as health care innovation leaders.
- 2) **Energizing team Canada by supporting business and leadership training** for our healthcare science students so they create new Canadian health and biosciences companies, provide highly talented personnel that attracts companies to Canada and keeps existing companies in Canada.
- 3) **Accelerating "made in Canada" innovations by reducing "red tape"** in government approvals to rapidly, but also safely, deliver new innovations to Canadians.
- 4) **Incentivizing health and bioscience companies to start, grow and stay in Canada.** Canadians will benefit if current and future health and biosciences companies know that Canada is open for business.
- 5) **Delivering patient accessible electronic health records across Canada** to improve care and accelerate research and innovation.
- 6) **Developing of new CIHR fund for clinical trials** to ensure the highest-level evidence is obtained to support using health care interventions that work and abandon ineffective medical practices. Canadians deserve to have the best care and value for their money.
- 7) **Creating a new CIHR Health Innovation Fund** to do research that pools the results of clinical trials to know for sure if an innovation/intervention should be supported, do research to determine if and how to implement innovations and do economic evaluations to ensure the results that interventions deliver are worth the taxpayer investment.
- 8) **Launching the "Health Innovations Agency of Canada"** to take worthy innovations efficiently through the red tape and barriers of approvals, purchasing and use in our health care systems to make sure they are quickly delivered and accessible to all Canadians.

These health innovation investments must be new investments. They must not come from existing investments in CIHR funded basic discovery research that might lead to the next groundbreaking innovation. Indeed, AFMC continues to advocate for the widely recommended funding increases in "Canada's Fundamental Science Review" (only ~60% of the recommended steady state increase in open operating grant funding was committed in Budget 2018).

Drs Banting and Best launched a new era with the discovery of insulin for diabetes and many succeeding Canadian scientists have made enormous contributions to advancing innovation in the world. We now advocate for support so that we can collectively enhance patient care and deliver economic prosperity for Canada in the 21st century.