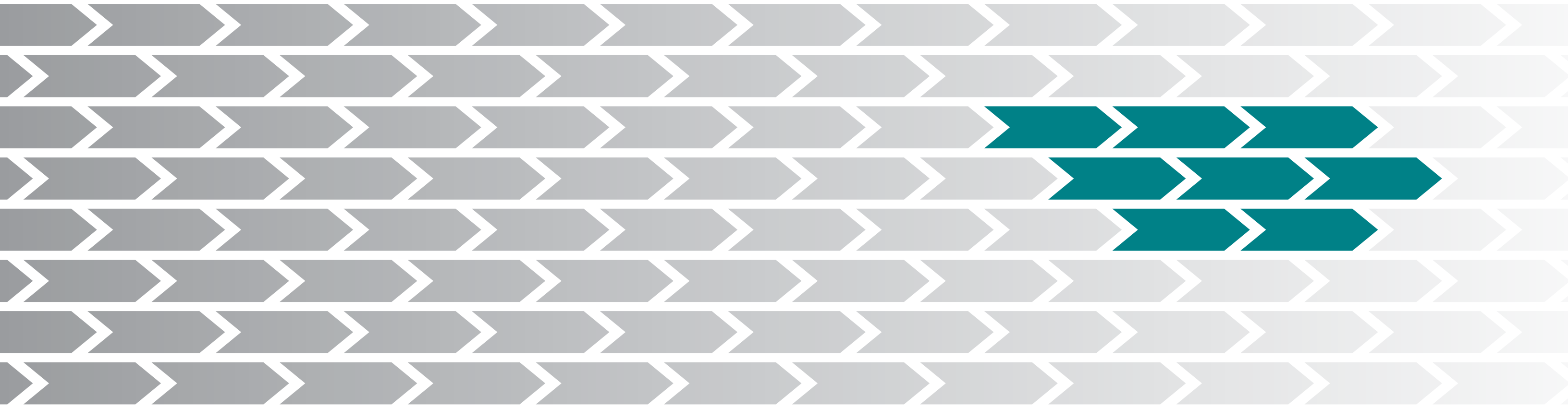
FIT FOR PURPOSE:
FINDINGS AND RECOMMENDATIONS OF THE EXTERNAL REVIEW OF THE PAN-CANADIAN HEALTH ORGANIZATIONS

Dr. Pierre-Gerlier Forest and Dr. Danielle Martin



SUMMARY REPORT

Canada

Fit for Purpose: Findings and Recommendations of the
External Review of the Pan-Canadian Health Organizations

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March 2018

The Honourable Ginette Petitpas Taylor
Minister of Health
Government of Canada
Ottawa, ON

Dear Minister,

In fulfillment of our responsibilities as your expert advisors for the External Review of Pan-Canadian Health Organizations (PCHOs), please find attached our summary report. It reflects a thorough examination of the evidence and issues – and of our deliberations on them – as well as what we learned from submissions, commissioned research, and our consultation with health-care stakeholders from across the country.

Thank you for choosing us for this work. We are honoured you put your trust in us, and hope that the resulting report helps guide your decisions around an intricate set of issues.

This review comes at a propitious time in the history of health care in this country. From our consultations, it is clear that there is a consensus around the health system reforms required to bring 21st century health care to Canadians. The call to get on with this work came from all corners of the country and from all participants, regardless of their roles.

As your portfolio evolves, the PCHOs' role and relevance in advancing federal health policy objectives and meeting national goals becomes more crucial. A suite of PCHOs designed to help you do that, in whatever timeline you deem appropriate, is our over-riding recommendation to you.

We hope that our report will generate productive discussions and inspire policies that yield stronger health systems across the country and better health outcomes for Canadians.

Sincerely,

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Contents

Acknowledgements iv

About this Report v

List of Acronyms vi

Précis of the Summary Report vii

Recommendations xiii

Chapter 1 – Objectives and Context of the Review 1

Chapter 2 – Pan-Canadian Health Organizations. 9

Chapter 3 – Indigenous Health and Reconciliation. 29

Chapter 4 – The Federal Role in Health Policy 37

Chapter 5 – The Machinery of Change 45

Chapter 6 – Setting the Destination: A Vision for 21st Century Health Systems 53

Chapter 7 – Summary of Criteria for Meeting Canadian Health-Care Imperatives 67

Chapter 8 – A Look at the Status Quo. 71

Chapter 9 – Options for Change. 81

Chapter 10 – Scenarios for Change. 89

Conclusion 115

Appendix 1 – External Review Terms of Reference. 117

Appendix 2 – Reference Group 121

Appendix 3 – Key Informants and Commissioned Research. 122

Appendix 4 – Individuals, Stakeholder Organizations, and Government Entities who Provided Written Submissions 124

Appendix 5 – Summary of Stakeholder Submissions 126

Appendix 6 – Key Concepts and Selective References 129

Appendix 7 – Timeline for Key Reports and PCHOs 166

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We are grateful for the wise counsel and attentive input we received from the knowledgeable and thoughtful members of our reference group, who provided regional and international perspectives as well as diverse views and areas of expertise. We thank them for being so generous with their time and talent, for their careful feedback, and for engaging so vigorously in the issues.

To the readers who reviewed drafts of the report and laboured to improve it, we thank you.

We were fortunate to have spoken with so many leaders and health sector stakeholders from coast to coast to coast, including the leadership and senior management of the PCHOs and deputy ministers of health from federal, provincial and territorial governments. We would like to recognize and thank them for their reflective input, insight, and forthcoming views.

Our discussions with, and input from, representatives of the Assembly of First Nations, the Métis National Council, and Inuit Tapiriit Kanatami were revelatory and essential and we greatly appreciated their participation.

All these views have helped shape ours; but if there are criticisms of the report, the responsibility lies with us.

We would like to share our deep appreciation of, and thanks to, Sine MacKinnon of SMK Strategic Communications and Public Policy for her expert contributions to the report. Thanks also to Michel Amar for his strategic advice.

Finally, we would like to thank the institutions for which we work, the University of Calgary and Women's College Hospital, for giving us the time and space to perform this important work, as well as Ian McMillan and Stacey Wallin for their invaluable help.

About this Report

This summary report presents the analysis and recommendations of the External Review of Pan-Canadian Health Organizations, launched October 3, 2017 by federal Health Minister Ginette Petitpas Taylor. The independent review was conducted by expert external advisors Drs. Pierre-Gerlier Forest and Danielle Martin who presented their advice to the minister in March 2018. The review's terms of reference appear in Appendix 1 of the report.

This is not an academic report; it is evidence-informed and the sources for the key concepts discussed across the chapters are outlined and referenced in Appendix 6, which was prepared by Dr. Renee Misfeldt. Questions about quotes and citations may be directed to the Review Secretariat.

The report builds on input elicited during the advisors' consultation with the PCHOs, National Indigenous Organization (NIO) representatives, industry leaders, academic experts, other stakeholders, and senior government officials from all parts of the country. It also reflects findings from the latest literature related to the review's subject matter and the results of commissioned research. The views expressed in written submissions from organizations and individuals across Canada are also taken into account in the report and summarized in Appendix 5. A list of those who were consulted and the names of the review's advisory reference group also appear in Appendices 2 to 4.

The report begins with a précis of the summary report and the advisors' recommendations. It then lays out the facts and arguments in three sections. Chapters 1 through 6 include the review's mandate and context; PCHO profiles; the need to address Indigenous health and reconciliation; the federal role in health policy; the machinery of change at the federal level; and a vision for 21st century health systems. The next section, Chapters 7 and 8, describes the needs of Canada's health systems, sets out the criteria for meeting those needs, and assesses the current configuration of PCHOs against those criteria. Finally, Chapters 9 and 10 make the case for change and lay out four possible future scenarios for a PCHO suite, followed by the report's conclusion.

List of Acronyms

AFN	Assembly of First Nations
APHI	Advisory Panel on Healthcare Innovation
CADTH	Canadian Agency for Drugs and Technologies in Health
CCOHTA	Canadian Coordinating Office for Health Technology Assessment
CCSA	Canadian Centre on Substance Use and Addiction
CFHI	Canadian Foundation for Healthcare Improvement
CHSRF	Canadian Health Services Research Foundation
CIHI	Canadian Institute for Health Information
CIHR	Canadian Institutes of Health Research
CPAC	Canadian Partnership Against Cancer
CPSI	Canadian Patient Safety Institute
CRISM	Canadian Research Initiative in Substance Misuse
EHR	electronic health record
EMR	electronic medical record
FNIHB	First Nations and Inuit Health Branch
FPT	federal, provincial and territorial
HTA	health technology assessment
ITK	Inuit Tapiriit Kanatami
MHCC	Mental Health Commission of Canada
MNC	Métis National Council
NIO	National Indigenous Organization
PCHO	pan-Canadian health organization
pCPA	pan-Canadian Pharmaceutical Alliance
PMPRB	Patented Medicine Prices Review Board
PT	provincial and territorial
SDOH	social determinants of health
SPOR	Strategy for Patient-Oriented Research
TRC	Truth and Reconciliation Commission of Canada
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
WHO	World Health Organization

Précis of the Summary Report

In October of 2017, federal Health Minister Ginette Petitpas Taylor launched an external review of federally funded pan-Canadian health organizations (PCHOs). The Minister appointed expert advisors Pierre-Gerlier Forest and Danielle Martin to lead an independent and forward-looking review and report back with options for reconfiguring the PCHOs to best serve federal health priorities and the country's health systems. What follows is a high-level summary of the reviewers' findings, which are elaborated upon in the Summary Report.

The PCHOs: A question of collective impact

The PCHOs are self-governed, non-profit organizations. Although the federal government provides the majority of their funding, they operate as arm's-length bodies. They were set up between 1988 and 2007 to respond to disparate health policy issues affecting the country.

The suite is listed here, in chronological order of founding:

- Canadian Centre on Substance Use and Addiction (CCSA)
- Canadian Agency for Drugs and Technologies in Health (CADTH)
- Canadian Institute for Health Information (CIHI)
- Canadian Foundation for Healthcare Improvement (CFHI)
- Canada Health Infoway (Infoway)
- Canadian Patient Safety Institute (CPSI)
- Canadian Partnership Against Cancer (CPAC)
- Mental Health Commission of Canada (MHCC)

The PCHOs differ by function, field, edict, focus, scope, size, mandate, maturity, governance, ownership, activity, audience, accountability, capacity, and track record. Our review was not concerned with individual PCHO performance but with the suite's potential collective impact. We asked ourselves: is this constellation of PCHOs, as conceived and currently configured, funded, and operated, aiming at objectives that align with national priorities for Canada's health systems? Are the PCHOs in their current form equipped to make the highest-impact contributions possible to the health system challenges facing the country in the 21st century? Are they the right fit for the future?

Context, assumptions, and approach

We began this review with the assumption that the federal government has a legitimate role to play in the country's health sector which it should exercise as much as possible in partnership with the provinces and territories. We also recognized that the existing PCHOs have played important roles in supporting system change and have many worthy achievements behind them. Our approach was to look forward rather than conducting a backward-facing audit. In this Summary Report, we examine the federal role in health policy; describe a national and international consensus vision for the future of health systems; and then turn to the PCHOs, recommending options for a reconfigured PCHO suite to support that future vision.

Key considerations

Indigenous health and reconciliation

Although not explicitly in the review's mandate, given the urgent imperative for progress, the report's first substantive chapter focuses on Indigenous health and reconciliation. Despite the 2015 Truth and Reconciliation Commission report and its Calls to Action, and the Government of Canada's focus on Indigenous peoples' right to self-determination, the PCHOs as a group have not seriously undertaken the work of reconciliation. As a first step, we recommend that the federal government initiate a dialogue with the National Indigenous Organizations and community leaders on the health priorities of Indigenous communities, with a view to the PCHO suite as an important potential set of tools in addressing those priorities. A series of suggested questions to guide that dialogue is also put forward.

The federal role in health policy

As federally funded organizations functioning in areas where the federal government seeks to work in partnership with the provinces and territories, the structures and functions of the PCHOs must be consistent with the federal role in health policy. That role is much broader than is sometimes imagined by many in the Canadian health-care sector. Over the years, at least six dimensions of the federal role have emerged: regulator, catalyst, custodian, equalizer, capacity builder, and potentially, enabler or "midwife" of new health practices and better health systems. In exercising these roles, the federal government has relied primarily on its legislative, spending, and criminal law powers; its option to act under the "peace, order, and good government" clause in Canada's constitution has not yet been explored in the health arena but may be of interest as new concerns emerge across the country.

Besides playing partner to the provinces and territories, a federal government that is more active, engaged, and intentional in its orientation has many instruments at its disposal to influence and improve health care; the PCHOs are among these. They exist to perform tasks or fulfill functions deemed essential to the federal government – tasks and functions that cannot or should not be performed 13 times over, and/or that speak to deep notions of Canadian citizenship. In some cases, arm's-length status makes this work easier; in others, distance from the levers of change may hinder progress. A reformed suite of PCHOs should be situated at the appropriate distance from government for what it needs to achieve and be given the tools to do so.

A vision for 21st century health systems

The terms of reference for this review made it clear that there is a pressing need for the PCHOs to help citizens, providers, administrators, and policy makers address the vulnerabilities of today's health systems. These vulnerabilities include issues related to fragmented and inadequate pharmaceutical policy; the need for robust health data governance and digital infrastructure; the desire to scale-up successful health innovations; the need to modernize the basket of publicly funded services to promote equity; the critical importance of strong primary care systems across the country; the need for more meaningful patient and public engagement in health care; and the imperative of working in partnership with Indigenous organizations and communities to improve Indigenous health outcomes.

But beyond the vulnerabilities of today, a successful PCHO suite must be designed to support the emergence of health systems of the future across Canada. Therefore, before recommending a future set of PCHOs, we endeavoured to understand what these 21st century systems will look like. A consensus vision emerged both across the country and in Canada's international commitments. It is clear that Canada's future health systems must be shaped by federal government partnership with the provinces and territories, as well as with Indigenous partners. The need to balance local and regional priorities against the need for a shared architecture and framework across Canada's health systems will be ongoing. But there is also a set of global trends and an emerging international consensus that will set the broader context for health system reform.

The World Health Organization's model of Integrated, People-Centred Health Services, endorsed by countries the world over – including Canada – is presented as the framework to guide Canada to 21st century health care. It puts people at the centre of the health system and promotes care that is universal, equitable, and integrated. The framework emphasizes a seamless connection to other sectors, notably those focused on the social determinants of health. This framework also promotes providing a continuum of care that requires high-performing primary care.

Learning health systems are also an essential foundation for effective health systems of the 21st century. Their goal is patient care that is continuously informed by the meaningful use of data, evidence, and research, with research and practice connected through a continuous feedback loop. This vision requires fully electronic and inter-operable health systems in which data are collected, openly shared, and accessed quickly and efficiently.

Criteria for meeting Canadian health-care imperatives

Based on the key considerations explored in the opening chapters of the Summary Report, three sets of criteria were developed against which the relevance of the current suite of PCHOs – and the scenarios presented as options for the future – could be measured. The first set assesses whether a suite of PCHOs – current or retooled – can contribute to resolving the key vulnerabilities affecting Canada's health systems. The second set of criteria considers whether a suite of PCHOs would be consistent with the role of the federal government in health policy. The third set of criteria is designed to determine whether a suite of PCHOs is likely to be successful in accelerating the transition to dynamic health systems of the 21st century.

A look at the status quo

While the PCHOs as a group meet some requirements of each set of criteria, it became clear from our consultations that in their current forms, with their current resources and mandates, the PCHOs as they now stand cannot meet the criteria set out in the first part of our Summary Report.

The current suite is characterized by serious gaps, redundancies, and misalignments that cannot be remedied without retooling. Even where some elements of the criteria are met, the reach of individual PCHOs is often limited, due in part to constrained funding and often also due to a disconnection from the priorities of local health systems. Prior successes notwithstanding, a consensus view emerged from our consultations in which the capacity of the PCHOs to respond to changing health system needs and pressures was seriously called into question. The key take-away: what has helped advance Canadian health systems to where they are today is not what will take them where they must go in the future.

The issues identified in our consultations included:

- The purpose and functions of the PCHOs are not clear to health system stakeholders or to the public;
- PCHO governance models are unnecessarily disparate and at times undermine the capacity of the organizations to deliver on their mandates;
- PCHO priorities are set in isolation from each other, and often from federal, provincial and territorial health system priorities;
- Evaluations of the impact of PCHOs lack independence and scientific credibility;
- There is a lack of capacity for delivering on pan-Canadian imperatives, including true bilingualism and regional presence;
- The role of PCHOs in health policy research is unclear, as is their connection to the research community; and
- Both the PCHO leadership and in some cases their teams are insufficiently intergenerational and diverse.

These shortcomings are not criticisms of the committed and hard-working individuals within the PCHOs, nor are they the PCHOs' alone to own. They speak to an architecture built in a haphazard manner and a group of organizations that has never been asked to work as a team.

To address some of these deficits, a list of process improvements was generated and is outlined in the Summary Report. Implementing these process improvements would increase organizational responsiveness and put tax dollars to better use in support of Canada's health systems – but they would not address the deeper need for a more streamlined set of organizations with more precise missions, with adequate funding and reach to achieve desired outcomes.

Options for Change: Four scenarios for the future of the PCHO suite

Organizational transitions can be wearying and exact a cost, both financial and human. That does not negate the need for change. The sizable federal investment in the PCHOs should deliver much more than a suite given to gaps, overlaps, and limited capacity to accelerate change.

Four scenarios for change are presented in the Summary Report, giving the Minister options from which to choose. Each reflects a unique emphasis based on the value that underpins it: efficiency, innovation, engagement, and equity. Decisions on which scenario to pursue will depend in part on national aspirations for the future of health care in Canada as well as on the appetite for ambitious change. All scenarios meet the three sets of criteria. Scenario 1 offers the potential for improvements without fundamental restructuring of the PCHO suite; Scenarios 2 through 4 reflect more profound transformation.

All four scenarios propose agencies focused on the infrastructure for learning health systems; an agency focused on prescription drugs; and a specialized, or "signature", PCHO with targeted functions that embody the value that characterizes that scenario.

Scenario 1, *Achieving Efficiency,* would help drive improvements to Canada's existing health systems through a substantially re-imagined suite of PCHOs, but it is built with the same bricks as the status quo. In this scenario, we assumed that the fundamental building blocks for the future are in place in the existing suite and that more efficient use of the financial and human resources now invested in the PCHO suite could deliver significant results in some critical areas.

Scenario 2, *Unleashing Innovation,* draws heavily from the work of the Advisory Panel on Healthcare Innovation referenced in the review's mandate. The emphasis of that work was on the spark, scale-up, and spread of innovation as the primary engine of reform in Canada's health systems. The assumption embedded in this scenario is that by removing barriers to innovation and its adoption across the country, Canada can move out of what the panel perceived as "stasis" in how health systems finance and deliver health services.

Scenario 3, *Fostering Engagement,* responds to calls we heard from across the country to privilege engagement as the key to health system transformation. It promotes a bottom-up approach to change through a set of federally supported networks that would encourage deep collaboration across the country between and among clinicians, researchers, policy makers, provincial and territorial leaders, and the public. This scenario assumes that what is missing in Canada is support for emerging organic partnerships that can coalesce, in a focused way, around solving problems together.

Scenario 4, *Pursuing Equity,* would make equity, the value underpinning Canada's health systems, the dominant driver for change. This scenario imagines a new form of federal leadership in partnership with provinces, territories, and other key groups on issues difficult for any stakeholder to address alone. In it, we assume that what is needed is a strong federal interlocutor to close disparities in health outcomes that arise due to global trends, such as the rise of expensive technology – including prescription drugs – and the need to bring services like mental health, home care, and others into the core of Canada's publicly funded health-care systems to reduce inequities of access and outcomes across the country.

The four scenarios are not watertight or mutually exclusive; it is possible, and may indeed be preferable, for the government to implement elements from two or more scenarios if such an approach would best serve its policy goals. What matters most is that combinations of the scenarios be designed with utter clarity on those goals. The gaps and overlaps that exist in the current PCHO suite will only be avoided if the purpose of a re-organization is clear.

Recommendations

1. As part of its recognition and affirmation of Indigenous rights, the Government of Canada should task Health Canada and the Department of Indigenous Services Canada with initiating a dialogue with the National Indigenous Organizations to identify how the PCHOs could serve Indigenous communities' health priorities. Including the leadership of the PCHOs and other groups in those discussions will likely become necessary to ensure the transition to a new model and a new culture.

2. The Government of Canada should adopt a long-term vision for the future of Canadian health care and articulate the role it intends to play in pursuing that future. The Minister and the organizations in the federal health portfolio – including the PCHO suite – should assume explicit responsibility for establishing and pursuing a common set of priorities.

3. As a principle, the Government of Canada should support partnerships with clear goals and objectives addressing defined health systems issues. Such partnerships should engage provincial and territorial governments, the Canadian public, National Indigenous Organizations, the research and public health communities, administrators, and providers.

4. Health Canada should implement process improvements to clarify the purpose and functions of the PCHOs; streamline their governance; establish joint strategic and work planning; put in place measurable objectives and indicators for health system improvement; ensure independent impact evaluations in areas of PCHO activity; and require that the PCHOs build truly pan-Canadian and bilingual teams.

5. The status quo for the PCHO suite will not serve the needs of Canadians in the 21st century. The federal government must recast, re-mandate, and redirect the PCHOs to make optimal use of all resources available at the federal level to support health quality and system transformation.

6. Health Canada should instruct the PCHO suite to partner with the provinces and territories to accelerate the emergence of comprehensive, integrated publicly funded health systems centred in primary care. Spread and scale of system innovations, using all levers including policy and regulation, must be a shared strategic priority.

7. Three PCHOs have achieved the purpose for which they were established. Their ongoing existence in their current form contributes to siloing and undermines health system integration efforts. The Government of Canada should phase out these organizations in their current forms and encourage new and better use of their functions and resources.
    a. CCSA – The required functions and roles related to substance use and addiction can be assumed by a national network focused on discovery, innovation, and implementation, built on the foundation of the Canadian Research Initiative in Substance Misuse (CRISM).
    b. CPAC – As a result of CPAC's work, the cancer community in Canada has developed strong collaborations. A group of mature cancer agencies across the country now has the capacity to support the shared goal of providing world-class cancer prevention, care, and survivorship.
    c. MHCC – Mental health is now "out of the shadows". The integration of mental health care services into the core of Canadian health systems requires a different type of leadership, capable of driving a bottom-up approach in which patients and families, providers, researchers, and the broader mental health community come together to break down silos.
8. The Government of Canada should take responsibility for the ongoing data governance and management needed to support learning health systems across Canada. Such systems must be built on fully interoperable electronic health records that can be accessed by patients and their circle of care.
9. The Government of Canada should establish an integrated infrastructure for prescription drug policy that connects approvals, assessment, pricing, purchasing, and post-market surveillance. The assessment of health technologies should be carried out by leveraging the existing network of qualified agencies across the country.
10. In service of equity, the Government of Canada must put in place an ongoing mechanism to define standards for the modernization of the basket of publicly funded services in partnership with the provinces and territories. The definition of medical necessity requires an ongoing pan-Canadian process informed by evidence and public engagement; the PCHOs can be important participants in this work.

CHAPTER 1

Objectives and Context of the Review

Mandate

On October 3, 2017, the Honourable Ginette Petitpas Taylor, Canada's Minister of Health, launched an external review of the following federally funded pan-Canadian health organizations (PCHOs):

- Canadian Agency for Drugs and Technologies in Health (CADTH)
- Canadian Centre on Substance Use and Addiction (CCSA)
- Canadian Foundation for Healthcare Improvement (CFHI)
- Canada Health Infoway (Infoway)
- Canadian Institute for Health Information (CIHI)
- Canadian Partnership Against Cancer (CPAC)
- Canadian Patient Safety Institute (CPSI)
- Mental Health Commission of Canada (MHCC)

Each of the eight PCHOs is an independent organization, established to operate at arm's length from government in specific areas of health and health-care policy. The federal government provides PCHOs with all or most of their funding and holds them to account through a range of mechanisms. To carry out their mandates, the PCHOs are expected to collaborate with federal, provincial and territorial governments, system leaders, health-care providers, and researchers, as well as with other agencies, and, to varying degrees, patients and the public.

This review is not an audit or a probe of individual organizations; it cannot be an auditing exercise in the traditional sense because these are independent, self-governed organizations. Instead, the review examines the eight PCHOs as a suite because the federal government, their primary funder, seeks a clear understanding of their collective potential impact: Is this constellation of PCHOs, as conceived and currently configured, funded, and operated, focused on priorities that align with national objectives for Canada's health systems? Are the PCHOs in their current forms equipped to make collaborative contributions to the health, care, and system challenges facing the country's 21st century health systems? Are they the right fit for the future?

When Minister Petitpas Taylor appointed us to lead this review, she noted our public policy expertise, our work inside and outside health administration, and our national leadership experience. We bring complementary clinical and academic credentials to the table and a bedrock commitment to strengthening Canada's health systems for Canadians. We have been supported throughout the review by a highly qualified secretariat within Health Canada and a reference group of diverse and well-established experts.

The complete terms of reference for the review appear in Appendix 1. These terms lay out key responsibilities that are broad, bold, and two-fold:

1. To assess the role and impact of the current suite of PCHOs as a way to advance progress on pan-Canadian health-care priorities and federal objectives in relation to the following key issues:
    - Improving the affordability, accessibility and appropriate use of pharmaceuticals
    - Optimizing synergies between health data collection and information technologies
    - Addressing mental health and problematic substance use
    - Strengthening systems to deliver care at home and in the community
    - Promoting service delivery innovation
    - Enhancing pan-Canadian collaboration in priority areas
2. To re-imagine the PCHO suite to expand their reach and impact in:
    - driving consistency and standardization on key issues across Canada;
    - strengthening pan-Canadian capacity to respond to emerging issues and challenges; and
    - leading efforts to accelerate health innovation; and advancing a national vision for the health systems of the future.

Context

A federal government re-engaged in health policy

In 2015, the new federal government made clear its commitment to re-engage in health policy. In her mandate letter, then Minister of Health, the Honourable Jane Philpott, was tasked with working with the provinces and territories to negotiate a new health accord, with a view to improving access to home and mental health and addictions services, enhancing the affordability and accessibility of prescription drugs, and supporting pan-Canadian innovation in service delivery.

In 2016, federal, provincial and territorial governments worked together on shared priorities, culminating in the federal commitment in its March 2017 budget of $11 billion over ten years to the provinces and territories. These investments were specifically targeted to improve home care and mental health services. An additional $544 million over five years was allocated to federal and pan-Canadian health organizations to support pharmaceutical policy initiatives and health innovation. This has since been followed with the federal, provincial and territorial governments' agreement to the *Common Statement of Principles on Shared Health Priorities* in summer 2017, setting out common objectives for action. Federal, provincial and territorial governments are now in the process of negotiating bilateral agreements that will set out how each jurisdiction will use the federal investments in home care and mental health in keeping with these common objectives.

A new agenda for health care

In her mandate letter of October 2017, Health Minister Petitpas Taylor was instructed to work "to strengthen our publicly funded, universal health-care system and ensure that it adapts to new challenges." With the *Common Statement of Principles on Shared Health Priorities* and the bilateral agreements on which it is based in place, or in play, all provincial and territorial governments across the country share a focus on improving access to publicly funded services outside the traditional Medicare basket of physician and hospital services.

Pharmaceutical policy reform is a critical part of the health-care agenda. The March 2017 federal budget allocated $140.3 million for Health Canada, the Patented Medicine Prices Review Board (PMPRB), and CADTH to work together to improve access to more affordable prescription drugs, and to support appropriate prescribing. The federal government – a new participant in the pan-Canadian Pharmaceutical Alliance (pCPA) – is also working with the Alliance to strengthen governments' collective purchasing power. Furthermore, in March 2018, Dr. Eric Hoskins, former Ontario Minister of Health, was tasked by the federal government to lead an advisory council that will explore options for national pharmacare.

Other pressures affecting the health of Canadians also require urgent action. The opioid crisis across North America, for instance, reaching well beyond pharmaceutical policy, necessitates a multi-faceted response extending beyond one department. The November 2016 federal, provincial, and territorial *Joint Statement of Action to Address the Opioid Crisis* committed governments to working together, and with others in fields such as law enforcement, corrections, and education, to improve prevention, treatment and harm reduction with respect to problematic opioid use.

Changes in the federal health portfolio

This review does not extend to the federal health portfolio, the complement of federal organizations placed under the authority of the minister of health. We were not mandated to look into Health Canada's policy and health and safety regulatory functions, nor the Public Health Agency of Canada (PHAC), nor the work of the Canadian Institutes of Health Research (CIHR). However, any analysis and advice must consider how a future suite of PCHOs could interact with all parts of the health portfolio so that collective efforts and resources are co-ordinated, aligned, and leveraged to meet future health-care priorities.

In August 2017, the federal government announced a sweeping change in structure, creating a new Department of Indigenous Services Canada, and transferring Health Canada's First Nations and Inuit Health Branch (FNIHB) to it. In December 2017, FNIHB's operations were handed over to the new department, resulting in an estimated 72 percent reduction in Health Canada's budget and the transfer of 23 percent of its staff.

Any change to the suite of PCHOs will be in this context, providing a signal opportunity to consider the role that they should play vis-à-vis a smaller Health Canada and other federal departments. Funding for PCHOs will now constitute a much larger share of the overall health portfolio budget – indeed, almost one quarter. In that light, it is particularly important to examine the resources and tools available to support the federal health minister's mandate to advance a shared vision for Canada's health systems.

Other developments that impact intergovernmental relations and the economic environment in health care are also at play, including the scheduled review of the country's equalization payment formula.

Pan-government priorities

From the time of its election, the current government has repeatedly affirmed a number of values that drive its agenda across all departments. Three of these ideas are particularly relevant to our review and their influence will be felt throughout the report.

A commitment to reconciliation

No work examining the federal government's sphere of influence can be conducted in 2017 without incorporating a commitment to reconciliation with Canada's Indigenous peoples and to the Truth and Reconciliation Commission's Calls to Action.

The Minister of Indigenous Services' Mandate Letter notably commits the government to developing "governance models that bring control and jurisdiction back to Indigenous communities", and to health service delivery that is "patient-centred, focused on community wellness, links effectively to provincial and territorial health-care systems, and that considers the connection between health care and the social determinants of health."

A commitment to public engagement

The federal government has committed to creating and promoting the expanded use of open data, open information, and open dialogue. That includes a commitment to "accelerate and expand open data initiatives and make government data available digitally, so that Canadians can easily access and use it."

The intent is to allow Canadians across communities and professions to see how evidence informs decision-making, and to increase government transparency and accountability.

A commitment to gender equality

The federal government actively promotes the equal participation of women as decision-makers and agents of change in economic, social, and political processes.

As noted by the Minister of Status of Women: "The advancement of gender equality and women's economic empowerment [is] one of the key themes during Canada's G7 Presidency this year. [We are] … appointing more women into senior positions, and introducing reforms to promote greater corporate diversity."

Process

The parameters of an external review are notably distinct from those of federal inquiries and royal commissions, both of which have broader powers and longer timelines. As part of our exercise, we committed to complete a rigorous examination and objective analysis of available evidence; to conduct a full and fair airing of the issues; to hear from as many people and perspectives as possible; and to listen closely with open minds focused on the future.

The Reference Group

To ensure that we had access to the broad range of expertise needed to fulfill this mandate, we assembled a reference group of 12 highly reputed national and international experts with experience in governance, federal, provincial and territorial health policy, health-care leadership, academic research, and PCHO operations and management. Through in-person meetings and teleconferences, their advice and expertise were instrumental in helping inform and guide us on the issues under review.

A list of the reference group members is included in Appendix 2.

Consultations

An intensive consultation and fact-finding exercise began immediately following the launch of the review. It continued to the end of the calendar year and included consultations with more than 150 individuals and organizations, as well as input from all regions of Canada, federal officials, all provincial and territorial deputy ministers of health, and from Indigenous leaders and organizations.

Engagement with the PCHOs

The PCHOs were actively engaged throughout the review and provided input in several ways. There were face-to-face meetings with senior management teams and substantive strategic discussions with CEOs and board chairs. The PCHOs provided written submissions on a range of issues which prompted additional questions and responses. We reached out to the PCHO leadership throughout the process, asking and responding to questions, and engaging them in further discussions as the need arose.

Interviews with key informants

In face-to-face meetings or by teleconference, we spoke with key informants who discussed policy, system design, governance, inter-jurisdictional, Indigenous issues, and more. We talked to a broad range of individuals and organizations, including: the country's deputy ministers of health and other senior government officials; Indigenous leaders and organizations; diverse groups of experts, academics, and experienced health policy leaders; provincial health quality councils; research organizations; industry representatives; and other national organizations.

A full list of key informants is in Appendix 3.

Engagement with stakeholders and the public

We also wanted to ensure that stakeholders and the Canadian public had an opportunity to have their voices heard. Accordingly, we solicited submissions from them based on online questions. We received 184 submissions from a range of interested parties, including clinicians whose work had been affected by one or more PCHOs; other organizations who interact with the PCHOs; provincial and territorial representatives; patient groups; and entrepreneurs and private sector groups. From the submissions, it was clear that many saw the review as an important opportunity to pause and re-think broader issues in Canada's health systems. These submissions were a source of rich and diverse views critical to rounding out our understanding of the status quo and preferences for the future.

A complete list of stakeholders and individuals who provided input appears in Appendix 4. The key themes that emerged from their submissions are summarized in Appendix 5.

Engagement with the PCHO stakeholder communities

We also recognized that stakeholder communities more directly linked to each of the PCHOs were important participants in the consultation process. We therefore invited PCHOs to seek feedback from those stakeholders and to send us their synthesized input or to provide us with previously produced reports on stakeholder perspectives.

Research and reading

International jurisdictional scanning

We examined a broad cross-section of international sources of information and considered international health systems and organizations that perform similar functions to that of the PCHOs in areas such as health information, digital health, health technology assessment, patient safety and quality, mental health, substance use, and cancer control. The PCHOs shared information related to their international activities, collaborations, and organizational sharing of best-practices.

Review of documents

We undertook as thorough a review of relevant material as possible – from peer-reviewed journals, grey and academic literature, environmental scans, reports from non-governmental organizations (NGOs), and more. A summary of *Key Concepts and Selective References* informing our review was prepared by a policy scholar and is found in Appendix 6.

Commissioned research

We commissioned original research on two issues. The first related to federal authority in the health sector under the Canadian constitution. We undertook this to ensure that our recommendations would be pragmatic and grounded in a solid understanding of the role of the federal government in health policy. The second was an analysis of the governance models and accountability mechanisms applicable to the different PCHOs, which identified any potential obstacle to changes in their structures and functions.

Assumptions and approach

Our mandate recognized both the need for strong national leadership and pan-Canadian collaboration among governments. That is because health system change is deeper and easier when all governments – federal, provincial and territorial – come together to collaborate on making change. There is a growing national and international consensus on the approaches needed to adapt health systems in an increasingly complex world where many forces are bigger than any one province or territory. Canadian systems too often fail to share best practices, and at times struggle to coalesce where cooperation is needed. At important moments in Canada's history, the federal government has played a leadership role to respond to the health needs of Canadians.

Drawing on these historical and present realities, our first assumption is that while it should do so as much as possible in partnership with the provinces and territories, the federal government has a legitimate role to play in the country's health sector.

Second, we started and completed our work with the steadfast belief that the PCHOs have played a role in strengthening essential elements of Canadian health care. Together and individually, these organizations have contributed to increasing the country's capacity to deliver on health system goals and serve the needs of Canadians. At important moments, they have been agents of change in areas singled out for concerted attention and collective action. The people who work in them have dedicated themselves to fulfilling their mandates and are passionate about improving how they operate and what they achieve. In other words, we respect their work and their past achievements.

We appreciate the full independence the Minister gave us to develop our advice and recommendations. That freedom allowed us to apply a systems-wide and future-oriented lens to our work that looks beyond questions about the current shape and place of the pan-Canadian health organizations within the federation.

Accordingly, our approach to the work has been to look forward rather than look back. Given that the review was commissioned by the federal minister, we first undertook a thoughtful consideration of what the federal role has been in health-care policy. Next, we endeavoured to understand what the national and international consensus vision is for the future of health systems. This then led us to conclude how the PCHOs should be configured to support future health systems in a manner consistent with the federal role.

In keeping with this approach, this report begins, in Chapter 2, with a sketch of the current PCHO suite. Chapter 3 addresses the imperative of Indigenous health and reconciliation and Chapters 4 and 5 chart the federal government's role in health policy and examine the machinery that serves that role. Chapter 6 presents a consensus vision for Canada's health systems of the 21st century. With that framing, Chapters 7 and 8 look at what the current PCHO suite offers the country's health systems and stakeholders, based on three sets of criteria, while Chapters 9 and 10 offer four scenarios for change, followed by the conclusion.

CHAPTER 2

Pan-Canadian Health Organizations

The Suite: No common view

Why were these eight pan-Canadian health organizations created? How have they evolved? Who do they serve? How do they engage, relate to, and work with one another, other health-care stakeholders, governments, and the public?

Few Canadians, even those who have worked in the health sector a long time or play significant leadership roles within it, can answer all these questions.

Subject-area experts are certainly familiar with organizations active in their fields – indeed many have been involved with them in different capacities. Among health system leaders in Canada, nearly everyone has or has had a “stake” in at least one, if not more, PCHO. The governance models and the dominance of the PCHOs as employers of experts and funders of significant projects in the health sector has led to a remarkable number of people both inside and outside government who carry a torch for one or more organizations.

For instance, CEOs and board chairs of the eight PCHOs, both past and present, have significant ties to other positions of influence in the health sector. Many have held senior government positions at the federal, provincial and territorial levels or served as CEOs or directors on the boards of other national organizations. A small cohort has occupied leadership positions with multiple PCHOs over their careers. Furthermore, within the provincial, territorial and federal public service, large numbers of people work daily to support and liaise with the PCHOs, attend their conferences and report on their activities, leading to diffuse constituencies across the country for each organization.

Yet surprisingly, we found that no matter how attached a system leader is to the work of a PCHO, by and large they are less aware of – if not dismissive of – the role and relevance of other PCHOs.

The PCHOs, though often referred to as a suite of organizations, are not in fact a collection of matching things, or pieces considered as one composition. They do not really view themselves as a team. And in our consultations, it became clear that despite a shared source of funding, they do not share a purpose or set of goals. Their work together is opportunistic rather than by design. As we repeatedly heard, the PCHOs have few things in common other than the sector – health – and the main source of their funding: the federal government.

They differ by function, field, edict, focus, scope, size, mandate, maturity, governance, ownership, activity, audience, accountability, capacity, and performance. The value they provide is also perceived very differently across the country and, depending on whether one speaks with patients or patient advocates, government representatives, Indigenous organizations, researchers, industry leaders, or health-care providers, the range of perceptions of their value is wide, and in some cases, deeply polarized.

The degree of disparateness of opinion surprised us and made it difficult – if not impossible – to make general statements about the way the PCHOs in their current incarnations are seen by people working in and interacting with Canada's health sector.

We felt fortunate to be conducting a forward-thinking exercise, as a backward-looking audit on value and system impact would not likely have revealed a convergence of views. It is clear, however, that each organization is or has been important to some group of stakeholders at one or more critical moments: no PCHO is without champions or critics.

Nevertheless, each organization has a proud history and a current line-up of programming and activities made available to all provinces and territories. A sample of those offerings appears in the summary matrix and profiles that follow. Please note that the "signature accomplishments" were identified by each PCHO.

PCHO profiles

The PCHOs of today emerged over three decades in Canadian health care, driven by distinct impulses, approaches, and imperatives.

PCHOs	Year created[1]	Focus[2]
Canadian Centre on Substance Use and Addiction (CCSA)	1988	Addresses issues of substance use by providing national leadership and coordinating action through partnerships
Canadian Agency for Drugs and Technologies in Health (CADTH)	1989	Provides objective evidence to help make informed decisions about optimal use of drugs and other technologies
Canadian Institute for Health Information (CIHI)	1993 / 1994	Collects, analyses, and reports on health data
Canadian Foundation for Healthcare Improvement (CFHI)	1996 / 1997	Accelerates health-care improvement and spreads health-care innovations through partnerships
Canada Health Infoway	2001	Works with partners to accelerate the development, adoption, and effective use of digital health solutions
Canadian Patient Safety Institute (CPSI)	2003	Works with partners to advance improvements in patient safety and quality
Canadian Partnership Against Cancer (CPAC)	2006 / 2007	Accelerates action on cancer control by working with PT cancer agencies and other stakeholders
Mental Health Commission of Canada (MHCC)	2007	Leads the development and dissemination of programs and tools to support the mental health and wellness of Canadians

We have chosen to introduce the eight organizations in chronological order, based on the year in which they were created. We start with the longest-standing PCHO, established in 1988, and end with the most recent addition to the suite in 2007. This places them within the all-important context of the times in which they were created[3]. This shines a light on the problems and opportunities each organization was set up to solve or seize. The health-care and socio-economic trends that preceded and accompanied the PCHOs during their early years provide an important backdrop to this exercise. A timeline of when the PCHOs were created can be found in Appendix 7. Profiles of each PCHO follow in order of their emergence, as noted.

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[1] CIHI: incorporated December 1993; started operations February 1994. CFHI: funding announcement for establishment of a Health Services Research Fund in Budget 1996; started operations in 1997. CPAC: incorporated autumn 2006; started operations in 2007.

[2] Text for these focus descriptions is drawn from the PCHOs' websites.

[3] The Health Council of Canada, which was created in 2005 and sunset in 2010, is not included in this table.

Canadian Centre on Substance Use and Addiction

Board Chair (Interim): Paula Tyler
Chief Executive Officer: Rita Notarandrea
www.ccsa.ca
2017-18 budget forecast: $8.83 million
2016-17 total expenditures: $8.31 million

Background

Two seminal reports released in 1987-88 spurred the creation of the Canadian Centre on Substance Abuse (CCSA): *Booze, Pills and Dope: Reducing Substance Abuse in Canada*, a parliamentary report calling for a national centre on substance abuse, and a task force report by Dr. David Archibald, who was asked to develop a national focus on the issue. The Archibald Task Force identified gaps in information exchange, in development and availability of prevention materials, in training, and in research, and it confirmed the absence of an effective coordinating mechanism on the issue of substance abuse. The report also highlighted the need for a long-term federal commitment, with genuine federal-provincial partnerships that would maximize use of existing resources and expertise and be accountable to the people of Canada. To support the National Drug Strategy, and in response to the recommendations made in both the standing committee and Archibald "National Focus" reports, the federal government introduced legislation to establish the Canadian Centre on Substance Abuse (CCSA). CCSA's founding legislation, the *CCSA Act*, was passed in 1988. In 2017, it changed its name to the Canadian Centre on Substance Use and Addiction to avoid the pejorative connotations associated with the term "abuse" and instead to use words that help counter the stigma and shift the focus from the problem to the solution.

Mandate

To promote public awareness about substance abuse, participation in reducing the harm addiction causes to individuals and society, and the use and effectiveness of relevant programs.

Funding, staff, and governance

Health Canada is CCSA's primary funder, providing 94 percent of its funding, with an annual budget averaging $8 million over the past three years. It also receives project-based funding from provincial, territorial and federal government ministries.

The centre employs 60 staff, all in Ottawa except two located in Toronto, Ontario, and Sherbrooke, Quebec.

The CCSA board can have up to 13 directors: five Governor-in-Council appointments (including the chair) recommended by the federal minister of health after board consultation, and eight members-at-large, drawn from health professional groups, professional and voluntary organizations, and the private sector from across Canada. At the time of this report, all five Governor-in-Council appointed positions were vacant.

Roles and activities

CCSA's strategic framework enumerates four core functions: providing national leadership to create a common focus and purpose to achieve collective impact; building strategic partnerships by bringing people and knowledge together to develop collective responses and coordinated action; advancing research through synthesizing and generating timely evidence to inform practice and policies; and, mobilizing knowledge to expand the reach and adoption of new and emerging practices. Among its many activities, the CCSA collaboratively creates and implements national prevention and treatment strategies, many of which are population-based, for drug, alcohol and prescription drug misuse. It produces and promotes evidence-based programs for uptake across the country and participates in inter-disciplinary research to advance and mobilize knowledge. It monitors and reports on issues like adolescent cannabis use and National Alcohol Strategy (2007) challenges.

Signature successes[4]

- ✓ Forged Canada's addiction strategy and national strategies for alcohol, prescription drugs and treatment system – the results of extensive, multi-sector consultations to address substance use.
- ✓ Led national initiatives that strengthen collective action, including the National Opioid Conference and Summit and the *Joint Statement of Action to Address the Opioid Crisis.*
- ✓ Developed the first national youth and school-based drug prevention standards, alcohol guidelines, national treatment data, and competencies for the workforce.
- ✓ Provided lessons learned and the latest evidence on health impacts to inform cannabis legalization; issued early public warnings about emerging drug-use trends (ongoing); and will release the cost of substance use report in Canada (spring, 2018).

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[4] The signature successes have been identified by the PCHO.

The Canadian Agency for Drugs and Technologies in Health

Board Chair: Terrence Sullivan

President and Chief Executive Officer: Brian O'Rourke

www.cadth.ca

2017-18 budget forecast: $31.1 million

2016-17 total expenditures: $27.5 million

Background

In the late 1980s, the rapid rise in the availability and cost of new and advanced health technologies became a national health policy issue in Canada. That led to a joint-jurisdictional call for a country-wide approach to health technology assessment (HTA) – and to the creation of the Canadian Coordinating Office for Health Technology Assessment (CCOHTA). Begun as a pilot project in 1989, CCOHTA was mandated to present independent evidence to inform policy-makers' decisions on the use and adoption of medical devices. In 1993, the federal, provincial and territorial Conference of Deputy Ministers expanded CCOHTA's scope to include pharmaceuticals, an increasingly large share of health budgets. To better reflect its expanded mandate and new program areas, CCOHTA rebranded itself in 2006 as the Canadian Agency for Drugs and Technologies in Health (CADTH). Since then, improving the affordability, accessibility, and appropriate use of drugs has become an even more critical issue across Canada.

Mandate

To deliver timely, evidence-based information to health-care decision-makers about the effectiveness and efficiency of pharmaceuticals, medical devices, diagnostics, and procedures.

Funding, staff, and governance

CADTH receives 60 percent of its total funding from Health Canada, 25 percent from all provinces and territories except Quebec (which has its own HTA agency), and 15 percent from industry fees. In 2017, CADTH was allocated $36 million over five years to improve access to prescription medications, lower drug expenditures, and support appropriate prescribing.

CADTH employs 182 staff: 142 in Ottawa; 21 in Toronto; and the remaining 19, including regional liaison officers and research staff working remotely, are spread across all provinces and territories except Nunavut, the Northwest Territories, and Quebec.

CADTH's 13-member board has an independent chair, one federal government director, six regional representatives, and five directors from health systems, academia, and the public. The board is elected by the deputy ministers of health from all governments except Quebec. In addition, the government of Quebec appoints a representative to participate as an observer.

Roles and activities

CADTH provides governments and health-care decision-makers with evidence on the clinical and cost effectiveness of drugs, medical devices, diagnostics, and procedures. This promotes evidence-based policy making that can lead to more effective use and purchasing of health technologies and pharmaceuticals. CADTH collaborates with HTA bodies across Canada including Health Quality Ontario (HQO), L'Institut national d'excellence en santé et en services sociaux (INESSS), the Institute of Health Economics (IHE), hospital-based HTA units assessing non-drug technologies, and academic centres to improve methodological consistency, reduce duplication of efforts, and build HTA capacity in Canada.

Signature successes[5]

- ✔ Is the country's largest producer of health technology assessments, providing analyses based on clinical and economic factors, patient perspectives, and broader issues related to how HTA impacts health and patient care. This has increased the understanding and use of evidence in policy development and clinical practice.
- ✔ Facilitated the development of a pan-Canadian approach to the adoption of drugs onto public formularies. It has created assessment services that most Canadian governments rely on when making funding decisions affecting Canadians across the country. CADTH's Common Drug Review and pan-Canadian Oncology Drug Review programs assess the clinical effectiveness, cost-effectiveness, and patient input of pharmaceutical drugs and recommend whether public drug plans and cancer agencies should cover them.
- ✔ Assumed a leadership role with Canadian and international partners on novel methods for HTA, knowledge mobilization, implementation support, and patient engagement.
- ✔ Introduced a Rapid Response Service to meet governments' needs for timelier advice, and a Horizon Scanning Program to alert decision-makers to emerging health technologies impacting delivery.

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[5] The signature successes have been identified by the PCHO.

Canadian Institute for Health Information

Board Chair: Janet Davidson

President and Chief Executive Officer: David O'Toole

www.cihi.ca

2017-18 budget forecast: $109.3 million

2016-17 total expenditures: $102.4 million

Background

The Canadian Institute of Health Information (CIHI) was created by the federal, provincial and territorial ministers of health who endorsed the 1991 National Task Force on Health Information recommendation to create a new, independent, non-government institute for health information. Incorporated in 1993, CIHI started operations in 1994, and took on designated health information programs transferred from Health Canada and Statistics Canada in 1995. CIHI has become a foundational part of the country's health-care infrastructure, collecting, synthesizing, and publicly reporting comparable provincial and territorial data across health sectors. While CIHI maintains its role as a national custodian of health information and continues to play a key reporting function, its mandate has evolved over the years. Its original mandate provided funding to modernize health data infrastructure in Canada. In 2007, CIHI's mandate was expanded to support effective health system management through the continued development of new comparable health indicators. More recently, its mandate evolved to focus on providing comparable and actionable data to accelerate improvements in health care and population health across the care continuum.

Mandate

To deliver comparable and actionable information to accelerate improvements in health care, health system performance and population health across the continuum of care.

Funding, staff, and governance

CIHI is approximately 80 percent federally funded and receives the rest of its revenue from the provinces and territories and from cost-recovery services. In 2017, CIHI was allocated an additional $53 million over five years for addressing health data gaps, supporting improved decision-making, and strengthening reporting on health system performance.

CIHI has 713 employees, with 382 in Ottawa, 321 in Toronto, seven in Victoria, and three in Montreal.

CIHI has a 16-member board, comprising two directors nominated by Health Canada and Statistics Canada, 11 regional directors (five provincial government and five non-governmental provincial representatives, plus one government or non-government territorial representative), two directors at large (non-governmental), and an independent director at large as chair. Representation is balanced across regions and sectors.

Roles and activities

Over the years, CIHI has supplied governments and stakeholders with a diverse and complex range of products and services, expanding them as it filled gaps in health data. It works collaboratively with provincial and territorial governments, health regions, health facilities and other health-related organizations to deliver and disseminate data and information focused on health system performance, cost of care, and population health. The findings and analysis help governments, policy makers and managers track and target health system improvements and steer funding and program development. Provinces and territories also turn to CIHI for data tailored to individual projects on regional issues.

Signature successes[6]

- ✔ Successfully developed a robust set of databases of comparable administrative and clinical data, including data on hospital care, national financing and health human resources. As part of this work, CIHI set common data standards to ensure data quality and comparability.
- ✔ Leads indicator development to support performance measurement related to a broad range of priorities, including patient safety, access to care, wait times, health outcomes, patient experience, primary care, prescription drugs, mental health, and Indigenous health. Hundreds of comparable measures are available to decision-makers and the public through reporting tools.
- ✔ Took ownership of the Canadian Population Health Initiative in 1999 and has since tracked and reported on health status issues such as obesity, place and health, youth health, mental health, gaps and inequalities in health-care services, and geographical disparities in health.
- ✔ Created the National Health Expenditure Database and developed methodologies and tools essential to analyzing expenditure data and funding models.

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[6] The signature successes have been identified by the PCHO.

Canadian Foundation for Healthcare Improvement

Board Chair: R. Lynn Stevenson

President: Maureen O’Neil

www.cfhi-fcass.ca

2017-18 budget forecast: $19.1 million

2016-17 total expenditures: $13.4 million

Background

The Canadian Foundation for Healthcare Improvement (CFHI) began in 1996 as the Canadian Health Services Research Foundation (CHSRF), the first federally funded health organization dedicated to health services research and knowledge translation. An arm’s-length, non-profit, charitable organization funded through an initial $66.5-million endowment from the federal government, CHSRF was created amid calls for greater evidence-informed health systems decision-making – an important theme of The National Forum on Health (1994-1997). In response to a changing health systems landscape and the expanding role of the Canadian Institutes of Health Research in health systems research knowledge transfer, CHSRF began reorienting its mandate in 2009 to a focus on implementing and spreading innovative health-care practices across the country. In 2012, CHSRF renamed itself the Canadian Foundation for Healthcare Improvement to better reflect its new goals. CFHI creates partnerships with health system organizations, provides on-the-ground support to implement and measure quality improvement projects, and works to encourage the uptake of selected successful innovations across regions.

Mandate

To identify proven innovations and accelerate their spread across Canada by supporting health-care organizations to adapt, implement and measure improvements in patient care, population health and value-for-money.

Funding, staff, and governance

The federal government currently provides 98 percent of CFHI’s funding. Additional project-based funding comes from the provinces, territories, and stakeholders. CFHI has received annual federal contribution funding since 2015, when its endowment was nearing depletion. The 2016 budget announced additional funding, and the 2017 budget announced that, beginning in 2019-20, CFHI would have ongoing funding with a view to “continuing to accelerate innovations in all provinces and territories.”

CFHI has 62 staff members, 57 of whom are stationed in Ottawa, four in other Ontario locations, and one in Newfoundland and Labrador.

CFHI's board currently has nine directors, and can range in size to a maximum of 13. The independent board is comprised of health-care decision-makers (a majority of whom cannot be federal government employees or representatives), and a senior Health Canada executive nominated by the federal deputy minister of health. Board policy requires that, whenever possible, at least one director brings patient and family perspectives to the table.

Roles and activities

CFHI supports and spreads health-care improvement and innovation across Canada. To achieve this goal, CFHI works through pan-Canadian quality improvement collaboratives set up to address priority health issues across the regions. It identifies, implements, and spreads promising health-care innovations in partnership with selected health system partners. CFHI staff members provide expertise to organizations and front-line teams, boosting skills in quality improvement implementation, patient engagement, measurement, and change management.

Signature successes[7]

- ✔ Supported close to 200 inter-professional teams from all provinces and two territories in 2016-17 in CFHI health quality improvement programs.
- ✔ Created quality improvement collaboratives to drive, deepen, and disperse promising innovations and scale up proven ones. The INSPIRED chronic obstructive pulmonary disease collaborative involved 19 teams from health-care organizations in every province. It led to decreases in hospitalizations, emergency department visits, and re-admission rates and is now being scaled up with teams across the country.
- ✔ Spread proven telephone and e-consult innovations that are improving primary care access to specialist expertise.
- ✔ Established the appropriate use of antipsychotics collaborative which led to a significant reduction in inappropriate use of antipsychotics in long-term care homes across Canada through a pan-Canadian collaborative and is now being scaled up in New Brunswick and Quebec.

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[7] The signature successes have been identified by the PCHO.

Canada Health Infoway

Board Chair: Peter Vaughan

President and Chief Executive Officer: Michael Green

www.infoway-inforoute.ca

2017-18 budget forecast: $116.8 million

2016-17 total expenditures: $118.7 million

Background

In 1997, a federal Advisory Council on Health Infostructure examined the potential of information technologies to improve health care. Based on the vision described in the report, a federal/provincial/territorial Advisory Committee on Infostructure developed the Canadian Health Infostructure Blueprint and Tactical Plan that was endorsed in 2000 by all deputy ministers of health. The implementation of this plan, seen as a pan-Canadian priority essential for modern health care, demanded a large financial commitment. To this end, the First Ministers September 2000 Health Agreement included a five-year $500 million federal investment for health information technologies, to be delivered through a new non-profit corporation, Canada Health Infoway (Infoway). Since its incorporation in 2001, Infoway has been the driving force and central source of financial support for digital health-care technology development in Canada. Its first task was to support the development of compatible networks for electronic health records and promote adoption and use across the country. Subsequent funding set out additional priorities to support infrastructures across Canada such as telehealth and a pan-Canadian disease surveillance system, and to accelerate clinicians' adoption of digital tools.

Mandate

To improve the health of Canadians by advancing the development, adoption, and effective use of digital health solutions across Canada.

Funding, staff, and governance

While Infoway is entirely federally funded, most of its program funding is directed to initiatives that require co-investments by provinces and territories or other partners. Between 2001 and 2016, it received $2.15 billion under five agreements tied to supporting advances in priority areas aligned with federal, provincial and territorial health accords in 2001, 2003 and 2004. The 2017 budget allocated $300 million over five years to expand virtual care and e-prescribing initiatives, support adoption and use of electronic medical records, and improve interoperability of electronic health records.

Infoway has 144 staff: 86 in Toronto, 42 in Montreal, six in British Columbia, three in Alberta, two in Saskatchewan, one in Manitoba, one in New Brunswick, and three in Nova Scotia.

Infoway is accountable to its board of directors and to all federal/provincial/territorial deputy ministers of health. The board is comprised of two federal appointees (one of whom is the chair), five provincial and territorial appointees, and four to six independent directors. Directors are chosen for their expertise in leadership, business, health care, and information technology as well as their experience managing and governing complex organizations.

Roles and activities

Infoway's initial roles revolved around creating the infostructure and common standards for electronic health information systems to operate across Canada. It funded and helped provinces and territories manage projects to build networks to bring electronic health records, and more recently, electronic medical records, into their health-care systems. Infoway continues to promote electronic health and medical record adoption and integration into practice while providing services such as certifying vendors, producing content for educational programs, and engaging stakeholders in the expanded use of technology in areas such as tele-homecare. Infoway is now shifting its focus to developing and deploying a national electronic prescribing initiative, and to improving access for Canadians to personal health information and integrated, person-centred digital health services.

Signature successes[8]

- ✔ Drove the digital health agenda in Canada by creating pan-Canadian leadership around key enablers such as architecture, privacy, and interoperability standards in addition to creating an effective gated-funding model, linking payments to predefined implementation and adoption milestones.
- ✔ Partnered with all jurisdictions to achieve close to the 2004 Health Accord goal of 100 percent availability of electronic health records and approximately 85 percent participation in the use of electronic medical records, which is said to have resulted in $19.2 billion in cost savings and efficiencies since 2007.
- ✔ Working with Health Canada, provinces and territories, industry stakeholders, retailers, and other private sector companies, successfully launched PrescribeIT™, a financially self-sustaining multi-jurisdiction e-prescribing service in Canada.
- ✔ Initiated a patient engagement framework that provides Canadians with access to their health information and to digital health solutions that empower them to be more active members of their care team.

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[8] The signature successes have been identified by the PCHO.

Canadian Patient Safety Institute

Board Chair: Brian Wheelock
Chief Executive Officer: Chris Power
www.patientsafetyinstitute.ca
2017-18 budget forecast: $8.6 million
2016-17 total expenditures: $7.92 million

Background

Patient safety emerged as a health system problem and priority in Canada in the late 1990s, when evidence revealed the extent and impact of preventable errors, and researchers challenged the inevitability and origin of those errors. In 2001, the Royal College of Physicians and Surgeons of Canada launched a committee to draft a national patient safety strategy. *Building a Safer System* was released in 2002 and recommended a multi-disciplinary national body be created to facilitate collaboration on patient safety among health sectors and governments. The recommendations were embedded in the 2003 Health Accord, and Budget 2003 allocated $10 million to implement them, including $8 million annually, ongoing, for the Canadian Patient Safety Institute (CPSI). Created in 2003, CPSI amplified calls to proactively address patient safety problems at all levels. It launched collaborative campaigns and evidence-based resources to move patient safety up the policy agenda and into practice improvements.

Mandate

To provide leadership to build a patient safety and quality improvement culture in Canadian health care.

Funding, staff, and governance

CPSI receives approximately 96 percent of its funding from the federal government, and receives additional revenue from contracts, registration fees, sponsorships, and publication sales. Its funding is tied to education, research, programs and interventions, and tools and resources.

CPSI has 33 employees: 16 in Edmonton, seven in Ottawa, and 10 who work remotely from Saskatchewan, Manitoba, Ontario, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador.

CPSI is a member-based organization with a 16-member board, half elected by the members and drawn from the health care and patient safety community. The remaining positions are for the past chair, a Health Canada nominee, and six directors elected by federal, provincial and territorial voting members from all jurisdictions but Quebec.

Roles and activities

CPSI delivers patient safety education and improvement programs, promotes clinical best practices, gives advice on legislation, policy and strategies, coordinates cross-country and sector projects, and funds research. It has produced national standards, guides, and guidelines to meet the needs of professionals, students, educators, employers, boards, patients, and the public. Since 2013, CPSI has led the creation of the Integrated Patient Safety Action Plan, a multi-year plan being implemented through a significant level of collaboration and shared leadership in patient safety across Canada.

Signature successes[9]

- ✔ Created *Safer Healthcare Now!* in 2005, Canada's largest health-care quality improvement initiative. More than 950 organizations and 1,100 teams joined the intervention projects, producing measurable improvements.
- ✔ Adapted the World Health Organization's (WHO's) surgical safety checklist for Canadian health care, which is now used widely and is mandated in Ontario, Alberta, Saskatchewan, and British Columbia.
- ✔ Designated as a WHO Collaborating Centre for Patient Safety and Patient Engagement.
- ✔ Led efforts to create the Canadian Disclosure Guidelines, which brought consistency and transparency to the reporting of patient safety incidents across the country.

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[9] The signature successes have been identified by the PCHO.

Canadian Partnership Against Cancer

Board Chair: Graham Sher

Chief Executive Officer: Cynthia Morton

www.partnershipagainstcancer.ca

2017-18 budget forecast: $39.9 million

2016-17 total expenditures: $64.92 million

Background

In the 1980s, a global movement emerged promoting plans, programs and policies to lessen cancer's impact. Canada's cancer stakeholders came together in 1999, recognizing the need for a national, integrated, comprehensive cancer control strategy to improve the country's fragmented and uneven prevention, screening, and treatment efforts. In 2002, a 30-member council was formed that spearheaded a process that produced the Canadian Strategy for Cancer Control (CSCC). The council called for an independent stand-alone entity to lead the Strategy's implementation. In 2006, an arm's-length, not-for-profit organization called the Canadian Partnership Against Cancer (CPAC) was created to provide the focus, infrastructure, and funds to implement the CSCC.

Mandate

The focal point for advancing cancer control in Canada, CPAC is mandated to work with partners across Canada to implement the CSCC. CPAC collects, shares, and coordinates the country's data, knowledge, and cancer control efforts, with the goal of improving health outcomes for Canadians.

Funding, staff, and governance

The federal government provides 100 percent of CPAC's core funding, which is supplemented by additional project-specific contributions from other organizations. A five-year $237.5-million agreement that expires in 2022 allocated CPAC annual budgets of $39.9 million (2017-18), $43.1 million (2018-19), $51 million (2019-20 and 2020-21) and $52.5 million (2021-22).

The Partnership has 125 employees, 121 of whom are in Toronto. Three staff dedicated to working with First Nations, Inuit, and Métis partners are based in other regions: two in British Columbia and one in Ottawa.

CPAC's board has 20 members: four provincial and territorial representatives, one director nominated by the federal health minister, and 13 directors drawn from stakeholder groups, including the Canadian Association of Provincial Cancer Agencies, the Canadian Cancer Society, Indigenous populations, and cancer patients, survivors, or their families. It has one federal and one Quebec government observer.

Roles and activities

True to its name, CPAC partners with governments and agencies to coordinate cancer control efforts and monitor and publicly report on progress and challenges through its highly regarded system performance reports which provide both pan Canadian and jurisdiction-specific results. It convenes and collaborates with a wide range of cancer stakeholders, such as agencies, academics, patients, survivors, policy makers, populations of interest, and communities of practice. The Partnership elicits and leverages their expertise and embeds patient engagement into its work. CPAC strives to provide access to the latest evidence, tools and resources, and encourages its stakeholders to use and spread the knowledge to improve practice and policy. It identifies gaps in understanding or in support, and works to fill them, developing patient-focused indicators to measure patient and family distress, for instance.

Signature successes[10]

- ✔ Implemented and advanced the first Canadian Strategy for Cancer Control.
- ✔ Expanded cancer prevention and screening across Canada and increased screening in hard-to-reach populations.
- ✔ Worked with National Indigenous Organizations and government to develop The First Nations, Inuit and Métis Action Plan on Cancer Control, which guides initiatives to create culturally appropriate cancer prevention and care services.
- ✔ Collaborated with jurisdictions across Canada on the Canadian Partnership for Tomorrow Project, a landmark longitudinal cancer study of over 300,000 participants.

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[10] The signature successes have been identified by the PCHO.

Mental Health Commission of Canada

Board Chair: Michael Wilson

President and Chief Executive Officer: Louise Bradley

www.mentalhealthcommission.ca

2017-18 budget forecast: $19.54 million

2016-17 total expenditures: $20.48 million

Background

The Mental Health Commission of Canada (MHCC) was created in March 2007 in response to the Standing Senate Committee on Social Affairs, Science and Technology's 2006 report, *Out of the Shadows at Last: Transforming Mental Health, Mental Illness and Addiction Services in Canada*. It called for an independent, not-for-profit, arm's-length organization to develop and maintain a national focus on mental health. The MHCC's first orders of business were to develop a mental health strategy for Canada, based on strong stakeholder engagement, create and launch an anti-stigma program, and establish a knowledge exchange centre.

Mandate

To act as a catalyst for improving the mental health system and to change the attitudes and behaviours of Canadians around mental health issues.

Funding, staff, and governance

Health Canada provides the bulk of the MHCC's funding ($14.25 million annually since 2014-15). In 2015-16, Health Canada's funding represented 85.7 percent of MHCC's total funding. As MHCC's self-funded, cost-recovery programs have grown, the share supplied by Health Canada has decreased to 74.4 percent in fiscal 2016-17, and 72.1 percent in 2017-18. In 2016, the MHCC's mandate was renewed for a further two years, with an annual $14.25 million budget beginning in 2017-18. The renewed mandate is tied to substance abuse, suicide prevention, at-risk populations, and engagement.

Of MHCC's 79 employees, 72 work in Ottawa, six in Alberta, and one operates regionally.

A governance review in 2016 resulted in a restructured 15-member MHCC board, with Indigenous representation increasing to three members, and a decrease in provincial and territorial representatives from six to one. The board comprises a chair nominated by the federal minister of health, one federal representative, one provincial or territorial representative, and up to 12 non-government directors. The board seeks directors with appropriate academic and professional experience, enhanced by Indigenous and francophone perspectives, regional, cultural, and ethnic diversities. A priority is placed on lived experience with mental health problems and illnesses, from either a personal or caregiver perspective.

Roles and activities

In implementing and advancing the Mental Health Strategy for Canada, MHCC has taken on leadership, partnership, and capacity-building roles in convening stakeholders to develop and influence public policy. The MHCC guides and coordinates strategic change, with a focus on knowledge mobilization. It incubates programs for different populations, in different circumstances, and across different community settings – at home, school, and work. Programs like HEADSTRONG empower student mental health champions in high schools; Road to Mental Readiness offers mental health and resiliency training to first responders; and, Mental Health First Aid teaches people how to intervene appropriately should someone be experiencing a mental health problem or crisis. The MHCC has advanced workplace mental health through the implementation of the National Standard of Canada for Psychological Health and Safety in the Workplace. It collaborates with a wide range of stakeholders on studies, reports, and campaigns to accelerate change and spur progress in service improvement and public understanding of mental health. The MHCC also plays a key role in facilitating knowledge sharing among levels of government, and across provinces and territories.

Signature successes[11]

✔ Forged a national blueprint for action on mental health: *Changing Directions, Changing Lives: The Mental Health Strategy for Canada*. The Strategy was launched in 2012 to transform the mental health system to better meet the needs of the population. A broad consensus was achieved through extensive consultation with people living with mental health problems and illnesses, and with families, stakeholder organizations, governments, and experts. A youth-friendly version was released in 2015.

✔ Completed At Home/Chez Soi, a research demonstration project on homelessness and mental illness. Conducted in five cities across the country and involving 2,000 people, this initiative successfully demonstrated that the *Housing First* concept more effectively addresses homelessness than traditional approaches, and results in cost savings in health and social services.

✔ Created and scaled-up Opening Minds, a national anti-stigma program that identifies and implements best practices to reduce stigma and discrimination through in-person and online training. It increases mental health literacy among students, young adults, first responders, health professionals, and journalists.

✔ Resourced, populated and maintains Canada’s only national mental health Knowledge Exchange Centre, which initiates the research of reports and disseminates information through webinars, conferences, and digital channels to spark connections in the mental health community.

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[11] The signature successes have been identified by the PCHO.

CHAPTER 3

Indigenous Health and Reconciliation

Though they are established and funded almost entirely by the government of Canada, PCHOs do not demonstrate a clear understanding of their obligations to Indigenous peoples. Yet a high-functioning suite of PCHOs fully engaged in the work of reconciliation could support and advance Indigenous health and reconciliation in ways that are unique and important. Although this issue was not explicit in our mandate, we became convinced over the course of our consultations that it was critical to consider it.

The context

We approached the topic of Indigenous health and reconciliation with two intertwining imperatives in mind. The first is the need to recognize and leverage the strengths and resilience of Canada's Indigenous communities. The second is the need to address disparities in health outcomes between Indigenous and non-Indigenous people in Canada, disparities that were seeded by colonization and deepened by social and systemic factors.

One is a means and the other an end – a point reinforced in December 2017 by the minister responsible for the newly minted Department of Indigenous Services Canada who described one of her department's goals as: "the design, delivery, and control of services to be led by Indigenous peoples for Indigenous peoples."

> "To meaningfully focus on Indigenous health as a core priority would require these pan-Canadian health organizations to prepare themselves for meaningful partnership with Indigenous organizations and Nations.
>
> This includes a commitment to: Understanding the findings from the Truth and Reconciliation Commission and implement its Calls to Action; upholding Canada's obligations related to the UN Declaration on the Rights of Indigenous people; and, supporting and embodying cultural safety and humility and embedding this approach across the health system in Canada."
>
> *– Excerpt from a written submission*

The role of PCHOs

From our initial meetings with PCHO senior leaders and our review of PCHOs' publications, annual reports, work plans, websites, and the like, we found little evidence of consistent meaningful engagement with Indigenous organizations and nations. We identified a few cases of outreach and some attempts to bring Indigenous voices and views into PCHO work. Only a handful of organizations – notably CPAC – have dedicated resources and mounted projects on Indigenous issues. This state of affairs has been confirmed by the National Indigenous Organizations and Indigenous community leaders with whom we interacted, as they also reported both insufficient and at times inappropriate engagement with their communities on the part of the PCHOs.

It has been more than two years since the publication of the report of the Truth and Reconciliation Commission (TRC). The federal government is not only committed to the implementation of the Commission's Calls to Action, it has also moved to fully support the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and its implementation.

> "At least the government of Canada and FNIHB have mechanisms to respond to the concerns of Indigenous groups. The PCHOs have nothing."
>
> *– Key Informant*

Taken together, the TRC report, its Calls to Action, and the UN Declaration are core documents to guide the work of reconciliation:

The Truth and Reconciliation Commission

In June of 2015, the Truth and Reconciliation Commission of Canada released its findings and Calls to Action. In addition to the underlying and fundamental right to self-determination, the Calls to Action related to health and health care identify a series of priorities, several of which are particularly relevant to a PCHO suite. These include recognizing the health-care rights of Aboriginal people; establishing measurable goals to identify and close the gap(s) in health outcomes; and providing reports or data, including several on health indicators.

> "Reconciliation must create a more equitable and inclusive society by closing the gaps in social, health, and economic outcomes that exist between Aboriginal and non-Aboriginal Canadians."
>
> *The Truth and Reconciliation Commission, 2015*

The United Nations Declaration on the Rights of Indigenous Peoples

The federal government and National Indigenous Organizations have also identified UNDRIP as an important tool for the development of a made-in-Canada framework for reconciliation, one that reflects our history and unique legal and constitutional frameworks.

> "Indigenous peoples have the right to be actively involved in developing and determining health, housing and other economic and social programmes affecting them and, as far as possible, to administer such programmes through their own institutions."
>
> *United Nations Declaration of the Rights of Indigenous Peoples (UNDRIP), Article 23, 2007*

> "A key commitment that we see as essential is having Indigenous health as a core priority across all of these organizations."
>
> *– Key Informant*

Articles in UNDRIP relating to health and social programs notably include:

- the right of Indigenous peoples to the improvement of their social conditions and to determine and develop priorities to exercise their rights;
- the right to traditional medicines and to maintain their health practices, and access to health and social services;
- the right to ensure programs are duly implemented, monitored, and maintained and protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.

The government's commitment to the TRC Calls for Action and the UN Declaration should prompt powerful and positive changes to how federally funded agencies - including obviously the PCHOs - as well as civil society organizations develop strategy, build partnerships, allocate resources, approach human resources, and more. In the following table, we trace the TRC and UNDRIP recommendations to the mandates of the PCHOs and include some of the PCHO responses to questions about engaging with Indigenous communities.

Principles, Calls to Action, and Priorities	Areas of potential contribution – PCHOs
Overarching Principles Related to UNDRIP and Whole of Government of Canada	
Article 15 – Indigenous peoples have the right to the dignity and diversity of their cultures, traditions, histories and aspirations which shall be appropriately reflected in education and public information. *Article 23* – Indigenous peoples have the right to determine and develop priorities and strategies for exercising their right to development. In particular, indigenous peoples have the right to be actively involved in developing and determining health, housing and other economic and social programmes affecting them and, as far as possible, to administer such programmes through their own institutions. *Article 24* 1 – Indigenous peoples have the right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals. Indigenous individuals also have the right to access, without any discrimination, to all social and health services; 2. Indigenous individuals have an equal right to the enjoyment of the highest attainable standard of physical and mental health. States shall take the necessary steps with a view to achieving progressively the full realization of this right. **Whole of GoC principle** "No relationship is more important to me and to Canada than the one with Indigenous Peoples. It is time for a renewed, nation-to-nation relationship with Indigenous peoples, based on recognition of rights, respect, co-operation, and partnership."	Engagement with Indigenous peoples and organizations; cultural safety and humility training (All PCHOs) Data collection, standardization and sharing agreements (CIHI) All PCHOs should report and provide health information and evidence in their area of expertise (CCSA, CIHI, CPAC) Assisting Indigenous peoples and organizations in the development of policies and programs and accelerating improvements within areas of expertise (CCSA, CFHI, CPAC, CPSI, Infoway and MHCC) Address issues of substance use in Canada (CCSA)
Truth and Reconciliation Commission – Calls to Action	
19. We call on the federal government, in consultation with Aboriginal peoples, to establish measurable goals to identify and close the gaps in health outcomes between Aboriginal and non-Aboriginal communities, and to publish annual progress reports and assess long-term trends. Such efforts would focus on indicators such as: infant mortality, maternal health, suicide, mental health, addictions, life expectancy, birth rates, infant and child health issues, chronic diseases, illness and injury incidence, and the availability of appropriate health services.	Data collection and standardization (CIHI)
55. We call upon all levels of government to provide annual reports or any current data requested by the National Council for Reconciliation so that it can report on the progress towards reconciliation.	Reporting and providing health information and evidence in their area of expertise (all PCHOs)

Principles, Calls to Action, and Priorities	Areas of potential contribution – PCHOs
22. We call upon those who can effect change within the Canadian health-care system to recognize the value of Aboriginal healing practices and use them in the treatment of Aboriginal patients in collaboration with Aboriginal healers and Elders where requested by Aboriginal patients. 23. We call upon all levels of government to: increase the number of Aboriginal professionals working in the health-care field; ensure the retention of Aboriginal health-care providers in Aboriginal communities; provide cultural competency training for all health-care professionals. 24. We call upon medical and nursing schools in Canada to require all students to take a course dealing with Aboriginal health issues, including the history and legacy of residential schools, the United Nations Declaration on the Rights of Indigenous Peoples, Treaties and Aboriginal rights, and Indigenous teachings and practices. This will require skills-based training in intercultural competency, conflict resolution, human rights, and anti-racism.	Provide support to educational institutions to improve cultural competency of health-care professionals (CCSA, CFHI, CPAC, CPSI, Infoway, CADTH and MHCC)
33. We call upon FPT governments to recognize as a high priority the need to address and prevent Fetal Alcohol Spectrum Disorder (FASD), and to develop, in collaboration with Aboriginal people, FASD preventive programs that can be delivered in a culturally appropriate manner.	Addressing issues of substance use among Indigenous people in Canada (CCSA)
AFN, ITK, and MNC Health Priorities	
AFN – Invest in, support First Nations (FN) data governance strategy; support capacity to conduct assessments and use information; develop common indicators on health outcomes and measure progress; have FPT governments support FN data initiatives *ITK* – Facilitate health data collection, storage, sharing with health professionals and the Inuit *MNC* – Incorporate the Aboriginal Health Reporting Framework, including protocols for data collection, utilization and sharing of Métis-specific data; *Canada-Métis Nation Accord* – Continue and strengthen opportunities for Governing Members to undertake Métis-specific health research and surveillance to identify health issues	Data collection and standardization (CIHI and CPAC)
AFN, ITK and MNC statements reaffirm the importance of partnering in the development, design and delivery of policies, programs and services.	Partnering with NIOs (All PCHOs)
AFN – develop culturally appropriate policy and programming in mental wellness and addictions *ITK* – invest in mental wellness services and supports (including prevention, treatment of substance abuse and addictions) *MNC* – improve coordination of programs and services and ensure cultural and linguistic appropriateness; and collaborative action of key priorities and gaps in areas of mental health. *Canada-Métis Nation Accord* – Opportunities for Métis Nation to engage with the federal government in health and wellness policy, program development, and delivery; collaboration with FPT governments to work together and with Métis Nation leaders to determine areas of shared priority and improve coordination, continuity, appropriateness of health services for Métis people.	Assisting Indigenous peoples and organizations in the development of policies and programs and accelerating improvements within areas of expertise (CCSA, CFHI, CPAC, CPSI, Infoway and MHCC) Addressing issues of substance use in Canada (CCSA)

Principles, Calls to Action, and Priorities	Areas of potential contribution – PCHOs
AFN – eHealth dedicated funding and FPTs leverage governance within Infoway to ensure FN needs are met through representation in governance and levels of investment *ITK* – Invest is infrastructure in Inuit communities; telehealth capabilities *MNC* – ensure linkages between PT and Métis telehealth services	Accelerating the development, adoption, and effective use of digital health across Canada (Infoway)

A difficult evolution

It is important to reflect on what we heard from the National Indigenous Organizations and Indigenous leaders we spoke with and learned from submissions received in our consultation phase and through the PCHO submissions on Indigenous health.

We must note that not all PCHOs perform the same on all fronts. Nevertheless, some common themes emerged, all pointing to a difficult evolution of relationships:

Indigenous communities are not invited to bring their priorities to the table – instead, mainstream priorities are "adapted"

Indigenous communities and individuals are too often brought to PCHO tables for the explicit purpose of "adapting" existing priorities and programs for use in Indigenous communities. That the priorities themselves should be developed in partnership with Indigenous communities was not seen to be on the table, undermining the value of the exercise. As mentioned by an Indigenous health leader: "PCHOs have to choose to put Indigenous community priorities first, instead of their own. Much the same as they must choose patient priorities, instead of the priorities that service the needs of the PCHO."

In that context it is not surprising that the PCHOs' interactions with Indigenous peoples, communities, and leadership were seen as barely relevant at best, and damaging at worst. In one instance, this led to a resolution endorsed by the Assembly of First Nations outlining that non-Indigenous organizations such as the PCHOs often do not fully understand or engage in respectful ways with First Nations. The resolution called for the federal government to prioritize support for First Nations organizations over mainstream organizations doing work on behalf of First Nations.

Indigenous individuals, rather than Indigenous organizational partnerships, are sought

During our consultations with Indigenous leaders, we noted a strong feeling of tokenism, evidenced by examples of PCHOs inviting a single Indigenous individual to sit on a committee or board rather than engaging meaningfully with representatives of Indigenous organizations or communities. To quote one Indigenous representative: "I will not sit in a chair at your table, so you can check off a box on some form."

"(You) need to be clear that there is a mismatch between what (the PCHOs) invite Indigenous communities to the table to discuss, and what (they) are actually prepared and able to do. So (they) keep letting people down because we raise issues that are beyond (their) control to address, which means we have wasted (Indigenous people's) time."

– Key Informant

Engagement with Indigenous organizations and communities is complex. That makes it even more critical for PCHOs to be knowledgeable about Indigenous community structures and leadership. Without that understanding, outreach invariably leads to poorly conceived partnerships that are resented or ignored by Indigenous communities and organizations. To become better educated and equipped, PCHO boards and staff would all benefit from cultural safety and humility training in addition to prioritizing an acceleration of their engagement efforts with Indigenous groups. In building and strengthening relationships with Indigenous organizations, such training can make interactions more meaningful.

Service delivery, rather than capacity-building, is the dominant pursuit

Parachuting mainstream services and resources into Indigenous communities is not the way to build community capacity or respectful relationships. Among other things, the model of delivering services rather than building capacity means that well-paying employment in health-related positions – skilled or unskilled – are less often made available within Indigenous communities, both on and off reserve. And yet, we learned there are already Indigenous organizations doing good work in community-identified priority areas. Providing such organizations with additional resources, including financial and competency-building assistance, is the preferred route for many.

"As we look to broaden the focus to include the broader determinants of health, PCHOs can learn from wise practices of First Nations, Inuit and Métis. An Indigenous voice must be part of reconciliation efforts of all PCHOs."

– Written submission

"…. Ongoing learning and knowledge exchange across and between these organizations on cultural safety and humility and partnering in Indigenous health could be a common focal point."

– Written submission

Indigenous experiences, frameworks, and processes have yet to be incorporated

Indigenous communities are well aware of the health gaps they face. They are also giving voice to a narrative that highlights their strengths and resilience, and that seeks to build on those assets rather than focusing on deficiencies. We heard during our consultations, however, that PCHOs do not incorporate this narrative. We also heard that Indigenous peoples' experiences were too often excluded or invalidated because they failed to meet an evidence threshold. Engagement tended to be more about "putting one or two comments about Indigenous needs into mainstream frameworks." Indigenous concepts of health as holistic and indivisible were said to be overlooked in favour of the mainstream focus on an illness-based, disease-specific medical model. This was seen as neither legitimate nor supportive.

Finally, there is a perception that the PCHOs have failed to embed in their organizational knowledge an understanding of how Indigenous people access and use health and social services differently from non-Indigenous Canadians. This lack of understanding is reflected in PCHO core programming, undermining its relevance to the people for whom it is intended.

Distinctions between First Nations, Inuit, and Metis People are not considered

The Assembly of First Nations, Inuit Tapiriit Kanatami, and the Métis National Council have consistently advocated for a distinction-based approach that acknowledges the very different realities of these groups: "the cultural, historical and political diversity, as well as differences in the legislative, political and legal relationship between First Nations, Inuit and Métis to the FPT governments."

As a consequence, the learning process cannot stop with one organization or one community, nor can programs developed with one group or community just be tacked onto the reality and culture of another.

Questions for the Government of Canada to ask in engaging with First Nations, Inuit, and Metis peoples

In August of 2017 the federal government created two new ministerial roles, Crown-Indigenous Relations and Northern Affairs and Indigenous Services Canada. In the announcement of the new Indigenous Services ministry, it was outlined that "over time, one fundamental measure of success will be that appropriate programs and services will be increasingly delivered, not by the Government of Canada, but instead by Indigenous Peoples as they move to self-government." In a sense, the question for us was simple: how can the PCHOs help to support this transformation?

Given the need for nation-to-nation relationships, we believe a truly respectful approach would be for the federal government and Indigenous community leaders to create a dialogue together to identify how the PCHOs could include, embrace, and serve Indigenous communities' health priorities.

We believe strongly in the importance of the issues at stake. Change in processes, attitudes, and outcomes is urgently required. In that spirit, our sole recommendation is that the Government of Canada task Health Canada, the Department of Indigenous Services, and the Department of Crown-Indigenous Relations and Northern Affairs to initiate a dialogue with the National Indigenous Organizations, and Indigenous health leaders and stakeholders, to identify how the PCHOs could serve Indigenous communities' health priorities. Inclusion of the leadership of the PCHOs and other groups in those discussions will become necessary to ensure the transition to a new model and a new culture.

> "We call upon the federal, provincial, territorial, and Aboriginal governments to acknowledge that the current state of Aboriginal health in Canada is a direct result of previous Canadian government policies, including residential schools, and to recognize and implement the health-care rights of Aboriginal people as identified in international law, constitutional law, and under the Treaties."
>
> *– The Truth and Reconciliation Commission, Call to Action 18, 2015*

To begin the conversation, we respectfully suggest consideration of the following agenda:

Future structures

- How can PCHOs individually and collectively engage in meaningful partnerships with Indigenous organizations – not just individuals – in determining their strategic priorities?
- How can organizations within a newly constituted PCHO suite provide concerted support to the new Ministry of Indigenous Services?
- Do existing Indigenous organizations that are active and legitimate voices in Indigenous communities need an additional mechanism, such as one or more Indigenous PCHOs, to help Indigenous communities meet their health goals? What might such an organization look like?

New processes

- What are the ground rules and processes that would form the basis of a respectful and responsive relationship between the PCHOs and National Indigenous Organizations?
- How can the PCHOs recognize the value of Indigenous peoples' knowledge, experiences, and traditions?

Desired outcomes

- What could reconciliation look like within the PCHOs' fields of expertise and given the Government of Canada's recognition of Indigenous people's right to self-determination?
- How can the success of future PCHOs be measured based on closing health disparities and supporting meaningful improvements to outcomes that matter to Indigenous people?

These are large questions to consider within a complex environment, and there is much at stake.

> "We are agents of change – not targets of change."
>
> – *Key Informant*

CHAPTER 4

The Federal Role in Health Policy

The first building block of Canada's current national health insurance program was laid relatively recently – Parliament passed the *Hospital Insurance and Diagnostic Services Act* in 1957 – yet most discussions of the structural arrangements behind the health-care structures of our country must necessarily start with the *Constitution Act* of 1867. It is at the time of Confederation that legislative capabilities and policy responsibilities were allocated between the federal government and the provinces, including responsibilities and capabilities in the domain of health and health care.

Like all other organizations in the country's health infrastructure, the PCHOs are affected by issues related to the division of federal, provincial and territorial powers – and they will continue to be so. A federally funded, pan-Canadian organization in an area of shared federal-provincial-territorial jurisdiction cannot be successful unless its mandate, governance, and activities respect our constitutional and legal systems, notably the realities of the federal role. This role, however, is not as limited as is sometimes suggested. In health care, even if provincial powers have a "vast topography," to quote the former Chief Justice, the Supreme Court of Canada has consistently resisted any attempt to define a "protected core" such that health or health-care delivery at the provincial or territorial level would be immune to legitimate federal concerns.

Federalism and health policy

Canadian jurists and legal scholars sometimes use the term "dualism" to describe a conception of federalism which views certain areas, such as health care – among other contentious policy fields – as falling exclusively under provincial jurisdiction. According to this conception, provinces and territories exercise their authority over the full range of institutions and services that make up complex contemporary health systems. This perspective holds that Ottawa ought to limit its interventions in health to a few domains, narrowly defined by specific populations, such as federal inmates or Indigenous people, or specific matters, such as food safety or drug policy.

Yet in reality, the *Constitution Act* of 1867 did not have much to say about health. Section 92, in which provincial powers are enumerated, listed a few matters that Canadians have come to associate with health or health care such as "the establishment, maintenance, and management of hospitals" or "property and civil rights." Section 91 listed certain federal powers important to health and health care, such as patents, and attributed to the federal government other responsibilities associated with protecting the public's health, as long as they were national in scope or effect. It is often out of habit, rather than as the result of deep constitutional thinking, that provincial, territorial and federal competencies in health and health care are conceived as distinct, watertight spheres.

In contrast, "cooperative federalism" is the conception of federalism that emphasizes the complementarity and synergy of federal and provincial roles. In health policy, it makes sense to leave health services management and delivery to the provinces and territories. The country is vast, the population is diverse, and the needs vary according to local context and conditions. Other functions, however, are better performed on a broader scale. For example, the federal government performs a key function in ensuring that drugs prescribed anywhere in Canada are safe, effective, and fairly priced, and that adverse events related to pharmaceutical products are duly reported.

Cooperative arrangements are not always optimal on all points or easy to navigate, but most of the time they provide a sound and constructive division of labour between the two orders of government. When this approach functions at its best, with a good degree of harmony regarding the objectives and some common engagement in relation to their implementation, the health of Canadians benefits. The suite of PCHOs can help achieve this ideal, given of course the proper mandate and the proper structure.

The federal spending power

Of course, the dualist and cooperative perspectives are not always mutually exclusive. Governments could take different positions depending on the political context of the moment or the issue under discussion. Not every health initiative coming from the federal government needs to be treated as a potential infringement of the constitutional order. In some cases, it is even possible that most stakeholders, including provincial and territorial governments, would like Ottawa to do even more: provide more financial resources, more personnel, more shared national vision, and more ambitious outcomes. Certainly, this is the case when the country faces a health crisis of national dimensions, as with SARS for example, or when important economies of scale are within reach, such as in research and development.

In fact, there can be no health for Canadians without the discharge of a wide range of duties and responsibilities that can be traced directly to the federal government, from ensuring the safety of food, drugs, and cosmetics to preventing the spread of infectious disease at the national level. Moreover, a good deal of the financing, design, and delivery of the services and conditions that support the economic, environmental, and social determinants of health of Canadians are within federal jurisdiction, both in the Constitution and in the evolution of the federal, provincial and territorial division of powers since that time.

The federal "spending power" is one key component of this evolution. As early as the 1930s, as the Great Depression took hold in Canada, federal authorities started making use of their greater fiscal capacity to revive the country's economy by injecting money into infrastructure initiatives and relief programs. The use of that spending power became even more widespread after the Second World War, to address the needs of the emerging Welfare State. Provinces could not afford to meet the costs of the new programs alone and turned to Ottawa for support. This is how a fiscal and legal mechanism that was not explicitly mentioned in the constitution and that was first considered with much suspicion by the courts ended up becoming one of the principal instruments used by the federal government when it sought collaboration and consensus around a national purpose.

Dimensions of the federal role in health policy

Ever since the establishment of a federal Department of Health in 1919, it has been clear that the federal government accepts its constitutional role relating to the promotion and preservation of the health of Canadians and its corresponding responsibility to exercise the powers necessary to the fulfillment of its duties or functions. The manner in which this overarching policy role has been performed has varied. Depending on the context of the day, different dimensions of the federal role were emphasized, whether because of the type of action prioritized or because of the problem in need of attention.

For the PCHOs to play a role in the future health systems of Canada, their functions – individually and as a suite – must effectively complement those of the federal government. Health policy benefits from collaboration between levels of government; if there is no agreement about what appropriate action looks like from each level, such collaborative action is much less likely. As we will establish in the following sections, the role of the federal government in that regard is more substantial than many Canadians may realize. At least six dimensions of this role over time are worth mentioning in the context of this review, those of *regulator, catalyst, custodian, equalizer, capacity builder*, and potentially, enabler or even more accurately, "*midwife*" of new health practices and better health systems.

Regulator – protecting the health and safety of Canadians

The role played by the federal government as a national regulator is well grounded in law and in practice. Ottawa is held accountable for the safety of all sorts of goods, products, and devices, and in the case of prescription drugs and devices, we also expect federal authorities to answer for their efficacy.

The legal framework and the machinery have been with us for so long – the first federal legislation on patented medicines was adopted in 1907 – that it is easy to underestimate the structuring effect of the regulatory duties exercised by the federal government and its agencies. As a consequence, for example, scientific evidence has held a unique status in policy decisions, prior to and independent of the rise in the last two decades of evidence-based medicine and other forms of science-informed decision-making. By law, regulatory decisions must conform to the available scientific evidence; this requires a capacity on the part of relevant departments and agencies to evaluate and utilize research results.

Among all the questions raised in the review about the contribution of the current PCHOs to the development of sound health policy in Canada, some of the most frequent were related to the quality and extension of their capacity for knowledge management and research utilization. Those leadership teams that do not include recognized content experts are looked at with skepticism. Organizations that have not developed or sustained healthy relationships with the scientific community are considered with suspicion, especially when their field of action is busy with research activities and knowledge exchange.

Catalyst – championing innovation

With its use of the spending power, the federal government not only addresses the needs that the provinces and territories could not, or would not, meet adequately, it can also profoundly shape their decisions. Of the many dimensions of Ottawa's role in our health systems, this is often the one that receives the most attention. And for good reason: when the federal government used significant financial incentives to create and support a country-wide universal health-care program, it delivered one of our defining social programs.

This is not insignificant. In many, if not most, federal states, the spread and scale-up of innovative programs, especially those successfully tested in one of the federated units, is an important function that falls to the central government. Unlike other federations, however, there is not a clearly defined role in the Canadian constitution for the federal government to develop wide-ranging social policies or to extend social programs on its own. More exactly, Ottawa is not expected to act alone, but to seek the collaboration of partner governments at the provincial and territorial level. This goal is achieved through persuasion and negotiation, of course, but the role of financial incentives associated with the spending power cannot be underplayed. A specific blend of transfers and conditional grants are usually associated with major federal initiatives, to the point it is now difficult to totally disentangle the catalyst from the investor in Ottawa's policy role.

As history and practice have proven, Ottawa has all the legal and financial tools it needs to play an important role as a "chief innovator" or, at a minimum, as a "chief catalyst" for the spread of social innovation. The fact that the federal government has been more tentative recently in adapting important social policy programs successfully initiated by some provinces to meet new needs and priorities is a self-imposed limitation, not something inherent to the architecture of our constitution.

Custodian – preserving the social compact

Having been the original catalyst for universal public health care in Canada, custodian of that program was a function that the federal government subsequently established for itself. The essence of the custodial dimension is to preserve and strengthen the integrity of the social compact that underpins Medicare.

In the minds of most Canadians, Medicare's core promise at its inception was not about cost-control and efficiency, or about quality and innovation, or even about citizenship and national identity – all notions that would eventually be attached to the program. It was, first and foremost, the expectation that from that point in history, no one would have to pay his or her way when they needed to consult a physician or be admitted and treated in hospital: no more co-pays, no more deductibles, no more fares, no more fees, no more honorariums.

Yet in the first decade under Medicare, it was already evident that not everyone would play by these rules. Patients were asked more and more frequently to contribute fees in clinics and hospitals or were billed by physicians. It was also increasingly clear that many provinces didn't have the capacity, or at times, the willingness, to defend Medicare's integrity.

This is how the *Canada Health Act* of 1984 came to be. Ottawa decided to become the "custodian" of universal public health care, the keeper of the social compact achieved with the Canadian public. The spending power would continue to be used to support new or existing programs, but in this particular case, it also became a mechanism to prevent and discourage any attempt to return to the private-pay past. The values of Medicare were solidly enshrined in the *CHA* in the form of the five principles that came to define the system in the eyes of the public: public administration; universality; comprehensiveness; portability; and accessibility. Any province tempted to abandon its commitment to these principles would henceforth face real financial penalties – over and above the anger, electoral and otherwise, of its population.

Equalizer – leveling access and outcomes

For any government, it is one thing to solemnly commit to a set of public values, and quite another to ensure these values are actually embodied in decisions, processes, and outcomes. In keeping with the philosophy that permeated the new sections of the Canadian constitution adopted in 1982, Ottawa recognized the need to "equalize," as much as possible, the conditions under which citizens from different parts of the country were accessing public services, including health-care services.

Unconditional transfers to the poorest jurisdictions, in addition to dedicated health and social funding, should have contributed to some sort of service "floor," as foreseen by section 36 (2) of the *Constitution Act* of 1982 on equalization. Yet this was happening in a period of fiscal discipline, during which federal transfers in support of provincial programs were increasingly constrained, starting with new funding arrangements and ending with reduced payments. Moreover, this approach was inadequate in and by itself to address emerging disparities in a sector with constant need of new investments.

Consequently, in the late 1990s and the 2000s, the federal government turned more and more to dedicated funds and other targeted policy instruments, each with its own expected targets, its own implementation calendar, and its own rules of engagement – and involving matching requirements from provinces and territories. The merits of the outcomes of these funds have been debated, but they nonetheless played an important role in defining the role for Ottawa: more a partner than a mere funder. Provinces and territories were able to direct federal investments to where they perceived the needs were the most pressing, avoiding the "one-size-fits-all" approach of many pan-Canadian initiatives.

The equalizer dimension of the federal role has now been well tested in Canadian health-care federalism and is reflected in the work of the PCHOs. For example, it is unclear whether the national reporting function assumed by CIHI, confirming differences between jurisdictions but also highlighting progress and convergences, would have been so widely supported otherwise.

Capacity-builder – moving beyond transfers

Federal financial contributions are essential, but without any substantial addition to local and regional capacity, mere transfers may only perpetuate the status quo. Change requires new structures, new people, new skillsets. Demand for capacity building varies widely from one jurisdiction to another, of course, and depends greatly on local realities. In some places the most pressing gaps affect direct services to the public. In other places, management skills or policy capacity could be lacking, due to shortages of qualified personnel. As a general rule, however, those jurisdictions that have benefited directly from training, funding, or expert advice are supportive of the capacity-builder approach.

Most PCHOs were established (or decided to redefine their mandates) during a decade in which capacity building was perceived as a necessary complement to federal targeted funding. Today, the PCHOs play this role in three major ways. First, by contributing to the training of qualified personnel or by supporting embedded specialists in provincial, territorial, or even local organizations. Second, by funding joint programs and activities relevant to the actual needs of their partners on the ground. Third, by contributing resources and expertise on an ongoing basis to provincial or territorial public authorities.

Midwife – enabling emergence of the future

Building health organizations and systems for the 21st century, within increasingly complex social, economic, and political contexts, is a major challenge. This is especially true if everyone decides to act in isolation. The enabling functions of a federal government in such an environment could be compared to the role of a midwife. Each province and territory will still need and want to define for itself the exact terms under which its own health system will adapt to the 21st century health needs of its population. Yet international experience in a wide range of countries has shown that real change cannot happen without active and responsible support, evidence-based advice, and constant attention to outcomes.

As argued by the Advisory Panel on Healthcare Innovation in its 2015 report, a national capacity for advice and education in health policy, jointly with a capability for authoritative assessment, is not hard-wired into the architecture of our health systems. It falls to the federal government to assist in the birth of Canada's 21st century health systems, by performing those functions that cannot and should not be repeated at the level of each province and territory.

To take just one example: it is absurd to expect that data-driven systems will ever fulfill their promise of supporting personalized and fully continuous care if data from multiple sources are not accessible and capable of integration. Real progress would require not only open connections between different public data sources – already a tall order – but also between public and private sources, including those currently under the control of global actors or platforms. Only the federal government possesses the tools and the capacity to create such an environment in the public interest.

In the final chapters of this report, we will recommend solutions to support the development and expansion of innovative public health care in Canada. Those solutions have in common the belief and understanding that beyond differences in structures and outlook, all health systems in the country are in search of advice and other assistance to meet the imperatives of 21st century health care. If the federal government were to fill this gap with determination, as it should, many current roadblocks would disappear.

Health as a national concern

Section 91 of the *Constitution Act* of 1867 begins with a general statement that gives the federal government the power to exercise legislative competence over subjects that meet some exacting criteria of national emergency or national concern, in the name of "peace, order and good government (POGG)." In 1896, the Privy Council (then Canada's court of last resort) decided in favour of the federal government in a case regarding the sale of alcoholic beverages. The case is known as the *Local Prohibition* case and it was the first time, a few decades after Confederation, that the notion of "national concern" was articulated. According to the decision, some matters "in their origin local and provincial" might become a matter of national concern if they attained such dimensions as to affect the country as a whole.

The use of this provision is subject to multiple constraints and it is not clear how it would apply to the health-care delivery sector. This is a question worth considering. We have already pointed to health data and information technology, but other health-care issues such as standards of care in specific disease areas have reached a dimension that goes beyond provincial and territorial borders. It can also be argued that the innovation imperative facing Canadian health systems qualifies as a national concern. (It remains an open question as to whether – and if so, when – these issues could meet the test set by the Supreme Court for when and whether POGG can be invoked by the federal government.)

Many reasons might explain why the PCHOs were established at arm's length from the federal government. One of them, which we heard repeatedly during the review, is that the health role of the federal government is so limited Ottawa can only act indirectly, through the mediation of "independent" organizations. Yet when we take into account all the legislative avenues open to the federal government in health and health care, from its fundamental responsibilities in health protection to the spending power, and from the criminal law powers to (possibly) POGG, a different portrait emerges. In addition to the roles it plays currently, including as a partner to the provinces and territories, a more active, more engaged, more intentional federal government may have the ability to use more direct instruments in health care, based on solid constitutional grounds, should the government choose to do so.

Criteria for Meeting Canadian Health-Care Imperatives

Are PCHO mandates consistent with the federal government's duties and functions in health policy?

Any suite of PCHOs must be consistent with the dimensions of the federal role as:

- ✓ Regulator – protecting the health and safety of Canadians
- ✓ Catalyst and spreader of social innovation – championing innovation
- ✓ Custodian – preserving the integrity of our public health systems
- ✓ Equalizer – levelling access and outcomes among regions of the country
- ✓ Capacity builder – moving beyond transfers to equip all provinces and territories with the necessary skills and capabilities
- ✓ "Midwife" of 21st century health systems – enabling large-scale transformations in health-care culture and practice

CHAPTER 5

The Machinery of Change

The federal presence in the health sector manifests itself through multiple programs and policies and is sustained by a number of organizations varying in form and function. The federal health portfolio resembles a solar system – with the core functions in an inner circle in direct contact with the federal minister of health, and two additional concentric rings at increasing distance. The common point among all these organizations, including the eight PCHOs, is that they exist in large measure to fulfil the government's duties or to pursue its policy goals. Yet as we will see, they take many shapes and sizes, with huge differences in status and influence.

The health portfolio at the federal level

The federal minister of health owes her position to appointment by the Prime Minister, who confirms her responsibilities in a detailed mandate letter. The minister is notably accountable for the oversight of a number of different organizations tasked with a list of complex and varied executive functions: policy formulation and implementation; program oversight and administration; regulation and adjudication; and in some areas of federal jurisdiction, actual service delivery. The federal health portfolio has undergone many changes throughout the years, to reflect new priorities or policy concerns, preoccupations with administrative efficiency, or just to ensure consistency with changes in legislation or public sector practices.

Some innovations do not last, like the ephemeral existence of a distinct position of minister of public health, between 2003 and 2006, or the Assisted Human Reproduction Agency, dismantled in 2012 to conform to a Supreme Court Decision. Some are more lasting, either because of persisting government responsibilities or because of what has been called "the force of inertia in public policy," which makes it difficult to abolish an existing organization, especially when it is well embedded in the health system. Some of our key informants argued that most PCHOs have to some degree outlived the function for which they were originally established. One notable exception of course is the Health Council of Canada, which was terminated in 2014 after close to 11 years of activity and at least one major expansion of its original mission.

The first ring: organizations that report directly to the minister

Health Canada (1919–present)

As one of the organizations under the minister's authority, the federal department known as Health Canada provides support and policy advice to the minister. By convention and in practice, the deputy minister of Health Canada is not only responsible for the department's operations and budget, but also for advising the minister on the general orientation and performance of the health portfolio as a whole. In our political system, without being expected to have hands-on control of the delivery of all public programs or the implementation of every policy, a minister must still answer to Parliament for all that happens in her or his portfolio. By necessity, therefore, the exercise of public authority requires a close relationship, based on trust and candor, between a minister and the deputy who carries out most day-to-day duties and responsibilities. This is important when looking at the governance structure of the PCHOs – representation of Health Canada by its deputy on boards and governing councils is a strong test of interest and commitment on the part of the federal government.

Health Canada is the current incarnation of a federal department that has existed since 1919. Until recently, it was a relatively large organization, with an annual budget of $4.21 billion (2017-18) and more than 9000 employees. However, as mentioned in Chapter 1, the recent decision to transfer the health and social programs aimed at First Nations and Inuit peoples to the department of Indigenous Services Canada will reduce the department's budget by more than half and its personnel by a quarter.

Health Canada's Total Expenditures (FY 2016-17)[1]

	FTEs	Expenditures (billions)	Contribution to PCHOs as % of expenditures
Total Health Canada	8,852 (100%)	$4.15 (100%)	6.3%
First Nations and Inuit Health	2,035 (23.0%)	$2.97 (71.6%)	–
All other Health Canada	6,817 (77.0%)	$1.18 (28.4%)	22.3%

The core functions remaining in Health Canada are an important series of regulatory functions relating to food and drugs, consumer product safety, and pest management. The department also exercises active oversight of federal health policy commitments and contributes directly to their formulation and their implementation. We were told repeatedly that Health Canada's policy role has atrophied in the last decade. Furthermore, many key informants emphasized that knowledge and expertise in important health policy areas have progressively migrated from the department to other organizations or agencies, including the PCHOs, while more emphasis was given to financial management and program oversight.

> "An important challenge within Health Canada today is the marked shrinkage of policy capacity. What was once an important group of highly professional and dedicated individuals who supported a number of FPT working groups and had expertise in a range of issues – such as science, research, digital health and health technologies – has been whittled down to a few people straddling many files. How can Health Canada provide oversight and direction to the PCHOs in their contribution agreements if it doesn't have the capacity or the resources to understand the environment and the emerging issues relevant to the organizations and for health systems more broadly?"
>
> *– Key Informant*

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[1] Note: With the dissolution of Indigenous and Northern Affairs Canada, Health Canada has transferred responsibility and budgets related to First Nations and Inuit health programs to the newly created Department of Indigenous Services Canada (DISC). It should be noted that the amounts identified in the table are for illustrative purposes only and do not necessarily reflect the ongoing financial transfer to DISC. Expenditures reflect a point in time, and future-year funding levels may vary due to sunsetting or renewal of programs and new approvals.

The Canadian Institutes of Health Research (2000–present)

The Canadian Institutes of Health Research (CIHR) were established in 2000 following a major reorganization of the health research programs of the federal government and the decision to extend the reach and scope of the scientific research funded by the Medical Research Council. Approaches and topics in areas of health policy and population health were brought into the fold, as well as a new focus on knowledge translation. Within an annual budget of more than $1 billion, the organization currently allocates 47 percent of its financial resources to biomedical research, 13 percent to clinical research, and eight percent each to health services and population health research. At the time of writing, CIHR has undergone a governance review and will soon be appointing a new president.

The Public Health Agency of Canada (2004–present)

The Public Health Agency of Canada was established in 2004 after a succession of dramatic public health crises, including SARS which reached true national proportions. In the 2016-17 fiscal year, PHAC's forecasted total expenditure was nearly $600 million and it employed approximately 2500 FTEs. Federal authorities came to be convinced it was essential to concentrate expertise on public health threats and emergencies in one organization, while creating the conditions for national and international collaborations on policy, planning, and research. The original intention was to combine roles and functions equivalent to those of the US Centers for Disease Control, with their focus on infectious diseases and public health threats, and of the US Surgeon General, with a strong emphasis on public communication around living habits and behaviors. PHAC was reorganized in depth in 2014 to address governance and structural issues. It is still too early to draw conclusions about the new structure, but it is clear that an important challenge is the need to preserve and even enhance PHAC expertise in a number of public health areas.

The second ring: public organizations with administrative autonomy

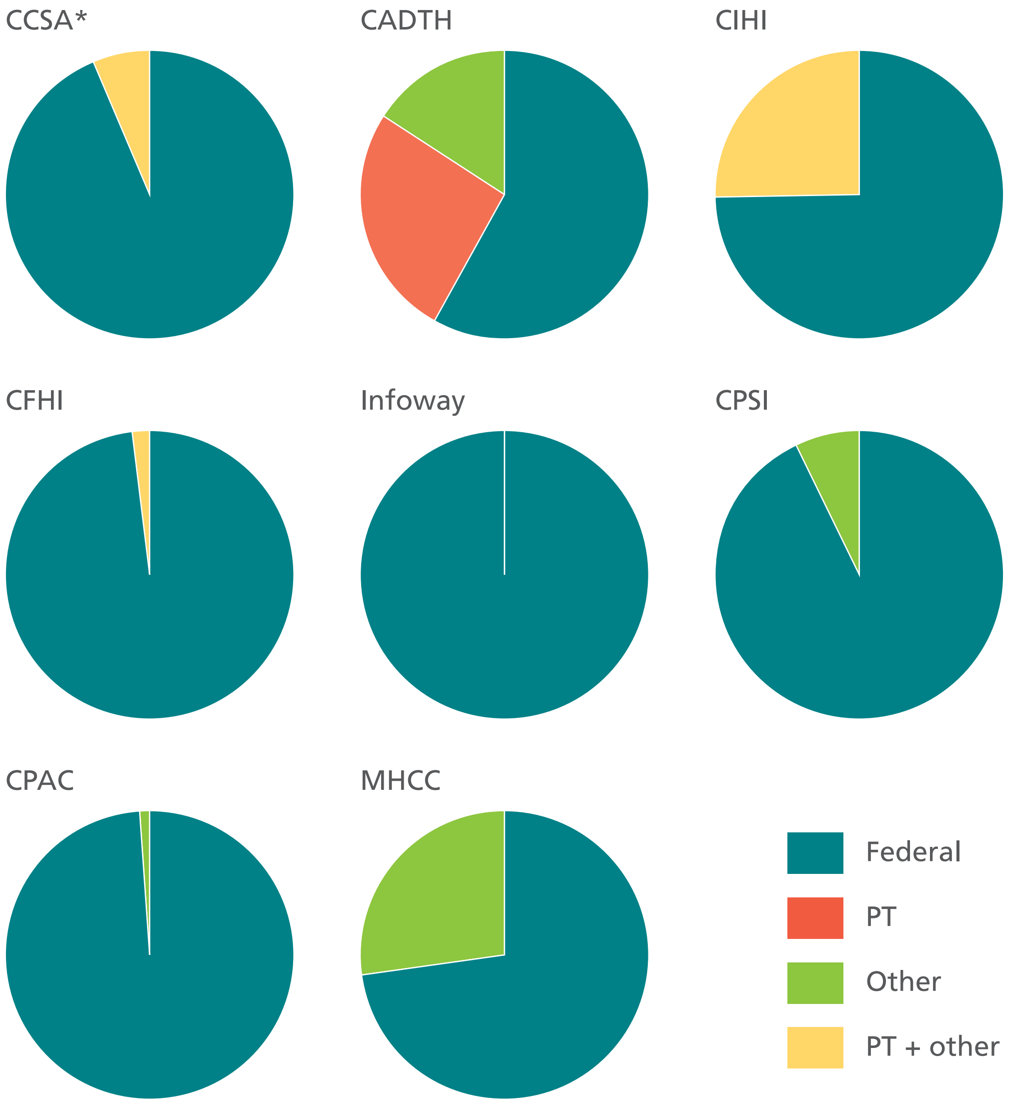
The health portfolio also includes a second tier or "ring" of public organizations and agencies tasked with specific roles or assignments. Placed under the authority of a president or executive director, as opposed to a deputy minister or equivalent role, these organizations enjoy a certain degree of administrative autonomy, including in the determination of their program priorities, but do not have the capacity to modify the mandate or mission entrusted to them by legislation. In one case, the Canadian Food Inspection Agency, the distinct administrative status is justified by the need to take into account the perspective of different ministries, such as Agriculture and Agri-Food, Innovation, Science and Economic Development, and Science, even if the ultimate responsibility for the agency rests with the minister of health. In another case, the Patented Medicine Price Review Board, administrative autonomy results from the powers of adjudication of the board, which require some independence.

In Canada, examples of public organizations of this type are limited, at least in the health sector. It is however a common model elsewhere in the world, notably in the United Kingdom or in the US, where the federal health and social services portfolio is essentially a complex arrangement of agencies and boards. This reality shows that operational freedom, for which there might be justification in the context of the complex and decentralized Canadian health systems, is not always incompatible with a central direction and a coherent strategy.

The third ring: self-governing and self-directing organizations

The PCHOs are part of a third "ring" of health organizations, all characterized not only by self-governance, but also by the possibility of determining their own strategic orientations – within the parameters of their mission statement and their funding. The federal government provides most of the funding but some PCHOs also benefit from contributions from the provinces and territories or from other sources of revenue, such as user fees or donations. The executive leadership of each PCHO is usually appointed by its board and enjoys a substantial degree of independence from government. The composition of the boards raises more questions, mostly because they tend to count among their members many delegates from participating governments.

Direct revenue sources for PCHOs, 2017-18



*Data from 2016-17

In recent years, Health Canada has imposed more stringent financial controls and reporting obligations on the PCHOs, which resulted in more common standards and procedures in these matters. Yet there are still few commonalities between the PCHOs when size, budget, or even influence are considered. As we have noted, the suite is in fact a loose collection of independent organizations, established outside of a master plan or strategy.

Summary of matters generally addressed in contribution agreements:

Topic(s)	Brief Description
Purpose	The purpose of the agreement (i.e. to set out the terms and conditions governing the transfer of funds)
Term	The number of years covered by the agreement, most commonly five years
Financial Contribution and Obligations	The annual dollar amount the federal government will make towards eligible expenses, including advance payments, cashflow forecast and record of expenses, reporting of other income, withholding or reducing payment where reports or audits not completed, overpayment by government, underspending by Corporation, and other related matters
Records and Audit	Government right to audit accounts/records of Corporation, obligation to keep proper records and to engage Independent Auditor each fiscal year, Auditor General may audit
Information Management	Government right to access staff/premises/records, obligation to retain records, disclosure of information, privacy
Performance Measurement, Evaluation and Reporting	Corporation shall measure progress/performance, participate in performance measurement/evaluation activities led by government, engage independent evaluator when requested
Reporting	Annual financial statements, audited reports, changes to business plan, etc.
Default	Events of default (failure to comply with agreement, provide false/misleading information to government, commits act of bankruptcy, etc.) and remedies on default (require reasonable action, suspend funding, terminate agreement, etc.)
Assets	Informing government of disposition of assets, use of assets, inventory of assets
Liability and Indemnification	Canada not liable for damage belonging to Corporation or for obligations of Corporation, mandatory insurance coverage, Corporation indemnifies Canada from all damages and losses
Lobbying	Anyone lobbying on behalf of Corporation must comply with Lobbying Act, cannot make payments contingent upon signing of this agreement
Intellectual Property	Property of Corporation, government can request copies, if government wishes to use IP the Corporation has to negotiate in good faith
Other Interests and Conflicts	While agreement in force the Corporation shall not pursue activities inconsistent with those funded under agreement, individuals subject to conflict of interest laws/codes cannot derive benefits from agreement unless in compliance with laws/codes, Member of House or Senate cannot benefit from agreement (other than benefits available to general public)
Assignment and successors	Corporation cannot assign agreement, payments or rights without government permission, agreement binds parties and their successors

Topic(s)	Brief Description
Relationship of Parties	No principal-agent, employer-employee, partnership or joint venture between Corporation and government
Dispute Resolution	Parties agree to negotiation/mediation, good faith settlement negotiations and other dispute resolution before resorting to litigation
Communications	Corporation acknowledges government support in public communications, must include disclaimer that views of Corporation not views of government on public materials, Corporation gives notice to government of public announcements/ceremonies, official languages, Corporation to provide public with access to information about activities, must consult with government before public engagement
Amendments	To be made in writing and signed by both parties, can terminate agreement by mutual consent of parties or unilaterally by government
Research Involving Humans	Must comply with Tri-Council Policy Statement, Research Ethics Board requirements
Dissolution or Liquidation	Shall provide government with notice of plans to dissolve or liquidate
Sex and Gender	Shall address sex/gender in activities
Other Legal Terms	This agreement constitutes entire agreement between parties, obligations of Corporation survive termination or expiration of agreement, communications to be sent to listed government address, method of communications (i.e. for reporting obligations), the fact that Canada refrains from exercising remedy is not a waiver of such remedy, governing law is Ontario/Canada, if one term of agreement is invalid then rest of agreement still valid
Appendices	Overview of activities, budget, reporting plan, cashflow and record of expenditures and revenues, work plan

A number of arguments are put forward in favour of self-governed and self-directed organizations such as the PCHOs, and we heard many of these over the course of our consultations. For example, their relative independence is viewed as sheltering their activities from political interference, especially in areas that are politically charged. Changes in government are not supposed to affect the continuity of their operations. These organizations are also reputed to be more agile and less bureaucratic than the traditional government organizations – although this remains to be proven – and it is said that they are better than government at tackling emerging problems or adopting new practices. Some organizations even view independence as underpinning their ability to promote new and bold initiatives that break with the established order.

But the argument most commonly used for the PCHOs is that the federal government has no choice but to act vicariously when it intervenes in the health sector, given its perceived lack of constitutional or political authority in the sector. Many – if not all – PCHOs claim to function as intermediaries between the federal government and its provincial and territorial counterparts.

Very often, as noted, the governance structure of the PCHOs also emphasizes the federal-provincial-territorial dimension of their work, by ensuring the formal presence on the board of governors of representatives from the two orders of government. On the one hand, this approach may be a good way to avoid conflicts and misunderstandings. On the other, it can also prevent meaningful change from occurring, because every move is subject to intense negotiations.

A final justification for PCHOs to exist in the third ring of the federal solar system is that the health systems of Canada, by their nature, may demand management and operational skills distinct from those required in large government bureaucracies. For example, building and running a decentralized network in which each component answers to a different authority – whether local, regional, or national – is not the same as operating in a vertical chain of command. This may not be only a question of aptitudes and personalities, but also of professional credibility: the core participants in an outcomes-driven network are expected to possess appropriate expertise and relevant experience.

Of course, all these claims are debatable. Independent organizations may have influence on policy in their areas, but in some cases, it might be preferable to be close to government decision-makers with the authority to move things faster and farther. Furthermore, the cumbersome governance structure and constraining funding agreements of most PCHOs do not help these organizations to be as flexible as one might expect of an arm's-length organization. Staffing and operating costs are not necessarily lower outside of the public service and we are not aware of independent studies showing that Canadian PCHOs consistently perform better than their national or international counterparts located inside government with respect to impact and effectiveness.

> "Our research showed tensions ranging from chairs and chief executives feeling unable to access key decision-makers within the department, to tensions over the setting of business targets, to aspects of corporate governance and staff pay. Departments meanwhile complained about turnover in Arm's Length Bodies (ALBs), as well as the unrealistic expectations of smaller ALBs regarding the importance the department would attach to them and the level of ministerial access they would be given."
>
> *Institute for Government (2010).*
> Read Before Burning*, p.40*

Finally, when it comes to building networks to achieve impact across highly decentralized systems, few PCHOs have truly adopted such a network structure. Even among those that have done so, few can claim success at building collaborative structures with the ability to penetrate deeply into the vertical and horizontal silos of Canada's health-care systems, which are complex adaptive systems where inputs are not linearly related to outcomes. In such systems, integrated networks need to incorporate an adaptive learning approach to be successful.

Given these realities, it stands to reason that a reformed suite of PCHOs should be situated at the appropriate distance from government for what it needs to achieve, and be given the tools to do so. Sitting at arm's length for its own sake does not always help effectiveness.

Reforming the PCHOs

The shape and structure of the federal health portfolio have changed constantly since the 19th century, which is as it should be. Our social understanding of public problems has evolved as well, requiring new approaches and new solutions. It seems legitimate to ask whether the current suite of PCHOs still corresponds to the needs of our health systems, today and in the near future – and if not, to recommend change.

Independent organizations cannot easily be restructured or “repurposed” by government, as it might do with other parts of the bureaucracy. With the exception of CCSA and CFHI, which have slightly different legal status, PCHOs are not-for-profit corporations, subject to the provisions of the *Canada Not-For-Profit Corporations Act*. The act sets out requirements on matters such as governance and reporting obligations, but importantly, it also regulates such decisions as amalgamation or winding-up of these organizations.

In the precedent involving the Health Council of Canada, the federal government’s decision to withdraw funding was the blunt instrument used to terminate the organization – offering its board no choice in the absence of alternative sources of revenue. New funding conditions were also used in other cases, such as Infoway or CFHI, to redirect organizations toward new priorities. We have noted already that the contribution agreements now in use give the federal government more control of the operations of the PCHOs. Yet in all these cases, with the exception of the Health Council, changes thus far have been marginal, and the architecture of the portfolio was left untouched.

There are other possibilities. First, if the aspirations of the federal government involve playing a more active role in tackling the big questions in health care, it might invite PCHOs themselves to envision structural changes, such as mergers or joint programs, including with organizations that currently stand outside of the health portfolio. Second, the federal government can start making more use of “sunsetting” clauses, by which funding for a cause is given for a limited period of time, until these functions can be passed on to other actors in the health sector or until the alleged purpose disappears. Finally, all or some of those organizations could be continued under legislation and in some cases, be “moved” to the second or first tier of the portfolio, where declaring them to be truly “federal” organizations would help to advance the policy agenda. The legislative route takes time and effort, but it could help calibrate more precisely the need for autonomy and the need for purposeful alignment with the federal government’s priorities.

These options go to the heart of our review. The PCHOs exist to perform tasks or fulfill functions that are deemed essential by the federal government. For some, after clarification of their roles and responsibilities, this can fully justify their ongoing existence, as well as a better and deeper connection with the rest of the health portfolio. For others, it is probably necessary to consider a different future, including seeing those functions with ongoing relevance moved to Health Canada or assigned to other health organizations. As we have just seen, the levers are available to the federal government to implement such change.

CHAPTER 6

Setting the Destination: A Vision for 21st Century Health Systems

In order to recommend a structure for the PCHO suite, we must define the destination for the systems it will support. Canada's health systems need to move rapidly into the 21st century, welcoming technical and clinical advances, and adapting to economic, demographic, and culture shifts, behavioural and social change. Clarity about what we want our health systems to look like for the coming decades yields clarity about what national institutions are necessary to support their emergence.

There is broad national and international consensus on the core elements of a vision for health systems of the 21st century. In this chapter, we first outline the key problems and vulnerabilities that affect Canada's health systems. While differing views exist as to how to resolve them, these vulnerabilities are not in dispute, and successful future health systems will have grappled with them. Second, we enumerate a series of global tensions that define the options available to those engaged in health systems transformation: citizens, experts, providers, and policy makers. These tensions are the result of powerful trends that societies will be able to navigate only through clarity about values. Finally, there is international consensus on how health systems need to be transformed for the 21st century to be more responsive to the needs and expectations of people and communities, and to produce better health outcomes. We present that consensus vision, outlining the World Health Organization framework endorsed by countries the world over – including Canada – and through it, paint a picture of our shared destination.

A future without today's vulnerabilities

A major hope for the future of health systems in Canada is that they will not be beset by the same problems faced today. Thinking about the vulnerabilities of the present helps leaders fashion health systems not by default, but by design – deliberately assembled to address the projected needs of the future.

We view the six issues highlighted in the review's terms of reference as reflecting the pressing vulnerabilities of today. To paint a more complete picture, we have adapted that list to reflect the other important health system gaps that surfaced from our consultations.

> "…preparedness envisions the future not to predict what is going to happen but to generate knowledge about vulnerabilities in the present."
>
> *Andrew Lakoff (2017).* Unprepared: Global Health in a Time of Emergency*.*

These vulnerabilities have been articulated in reports about Canadian health systems in nearly every sub-national jurisdiction as well as in numerous federal commission reports. It is time they were addressed. The PCHOs, if properly configured, mandated, and held to account for meaningful action, can be forces to accelerate their resolution:

1. Pharmaceutical policy that is poorly integrated, uncoordinated, and fails to produce equitable access, appropriate use, and affordability;
2. Health data governance and digital systems that are not effectively supporting real-time learning and constant improvement;
3. Under-developed capacity and lack of operational and organizational frameworks for spread and scale of health innovations and pan-Canadian collaboration on joint priorities;
4. An outdated basket of publicly funded services in need of overhaul and expansion to include such services as home care and mental health care, in keeping with evidence and population needs;
5. Inadequate access to the type of comprehensive and coordinated primary care that provides high quality patient experience and outcomes;
6. A weak commitment to appropriate and purposeful patient, family, and public engagement to meet personal and health system goals; and
7. Health outcome disparities between Indigenous and non-Indigenous Canadians, and inequitable access to health and wellness services for Indigenous people.

These present-day vulnerabilities are not only preoccupations of the federal government. The work of designing services, negotiating with providers, and funding most of health care belongs to the provinces and territories. Any federal, national, or pan-Canadian vision for the future must be grounded in the work of the provinces and territories and be continuously co-created with them, as well as with Indigenous partners.

But local and regional priorities must be balanced against the need for a shared architecture and framework across Canada's health systems. No matter where they live, Canadians expect and deserve equitable access to high quality health care and comparable outcomes. To achieve that within the re-envisioned health systems of the future requires all governments to recognize and respect what each can bring to the task.

Health system renewal is thus in part an intergovernmental exercise. But it is also influenced and informed by global factors – common trends and preoccupations with which countries all over the world are wrestling.

Criteria for Meeting Current System Vulnerabilities

In partnership with the provinces and territories, can the suite of PCHOs effectively address the current vulnerabilities of Canadian health systems?

Any suite of PCHOs must have the capacity to:

- ✓ Support strong pharmaceutical policy (affordability, access, appropriate use)
- ✓ Embrace health data and IT for innovation; support learning health systems
- ✓ Help the spread and scale of innovation through pan-Canadian collaborative approaches
- ✓ Facilitate expanding/reshaping of the basket of services according to need/evidence
- ✓ Enable deep patient and public engagement in personal and health system goals
- ✓ Assist the development and operation of comprehensive and integrated primary care across Canada
- ✓ Encourage reconciliation and accelerate improvements in Indigenous health and wellness

A future defined by tensions

The future of health care will be shaped not by a linear trajectory of "progress," but by the navigation of a series of competing forces. These are globally driven tensions; countries must continuously choose whether to favour one direction over another and weigh the impact of privileging one societal good over another. The shape of future health systems will depend on the ways societies address these tensions. In the Canadian context, the federal government and the PCHOs have important roles to play in that process. Internationally, these tensions include:

- ***Population health vs. precision medicine:*** On the one hand, high-performing health systems tend to set their sights on the health of populations, not individuals. Decisions about what care is publicly funded and which guidelines shape clinical practice will be based on population health approaches. On the other hand, more and more precision medical solutions will emerge as researchers learn how to tailor therapies to the genetics, preferences, and aspirations of the individual.
- ***High technology vs. slow medicine:*** Advances in technology are heightening our diagnostic and therapeutic powers. Artificial intelligence, machine learning, and service automation will make it easier to do more and more with greater accuracy. But at the same time, the harms caused by medical tests and interventions are increasingly being debated, supported by the spread of Choosing Wisely, a global movement raising awareness about the dangers of unnecessary and inappropriate health-care services, and by the growing body of literature critical of "low-value care".

- ***Standardization vs. individualization of care:*** Current treatment approaches lead to unacceptable variations in patient outcomes across the country. As quality improvement initiatives proliferate, common standards and mandatory use of standardized interventions based on best evidence such as checklists and clinical practice supports are becoming entrenched. But patients are increasingly – and rightly - demanding to be seen as unique and multi-dimensional persons, and are seeking care that also respects their individual needs, values, beliefs, and preferences. Balancing the technical and personal dimensions of quality – no doubt a moving target because of evolving knowledge, technology, and expectations – will require constant revisiting and updating.
- ***Personal responsibility and ability to pay vs. collective obligations and expectations about what the state should provide:*** Making healthy choices and prudent use of public services is important to individuals. At the same time, not every choice is available to everyone. The point at which personal responsibilities become collective obligations will continue to prompt heated debate all over the world, in health care and beyond.
- ***Downstream funding for health-care services vs. upstream funding for social programs:*** As more medical treatments, drugs, and technology emerge to make living longer possible, the evidence continues to show that investing more in housing, education, living wages, and social supports reduces health disparities and improves health outcomes. Poverty, for example, is the single largest determinant of health. Governments have difficult trade-off decisions to make about where to invest each marginal dollar.
- ***Centralization vs. decentralization:*** Strong central governments can use policy and fiscal powers to direct and support health systems – providing economies of scale for purchasing, procurement, negotiations, regulation, and spending. At the same time, it is local capacity at the subnational, municipal, and neighbourhood levels that is critical for responding to health issues and needs on the ground.

These are not zero-sum propositions in which one side emerges victorious forever. On any given issue and at any given moment in time, citizens, governments, and system leaders must be able to respond to the push and pull of these opposing forces in health care, synthesizing them where possible and where synthesis is not possible, making choices in the public interest.

There are tools available to support such decision-making. They include the knowledge that emerges from research and practice; the newer tools of big data and artificial intelligence; critical policy analysis; and democratic inputs about enduring values. Values permeate public policy discourse, and four in particular have been dominant in Canadian discussions about health system reform.

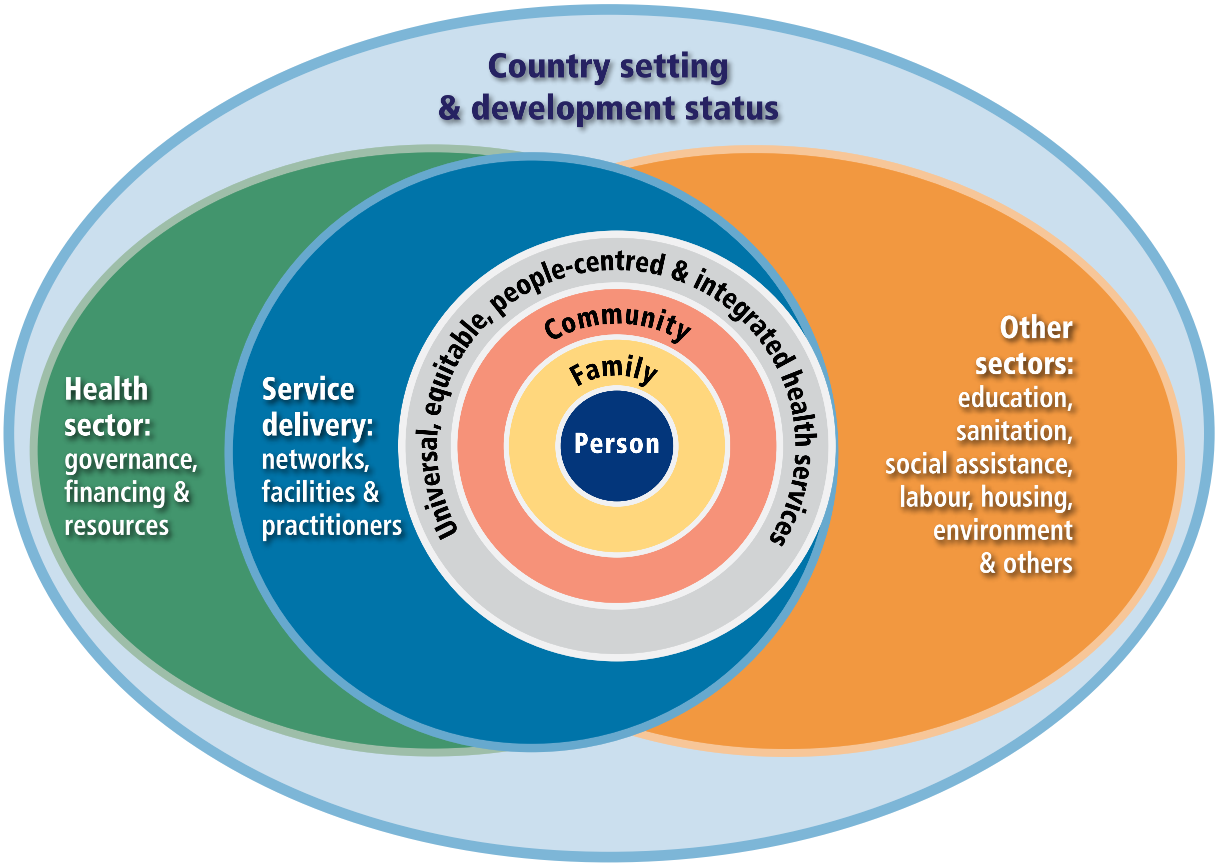
First is the importance of ***efficiency*** in the use of public dollars. In publicly funded health systems it is critical that the public trust be maintained by ensuring that when tax dollars are spent on services, administration, and leadership of the health system, they are linked to real impact. Efficient organization of structures and streamlining of functions are key to maintenance of the public trust.

Second, there is ample discussion about the importance of ***innovation*** across all sectors of a modern economy. This includes not only the critical technological and scientific innovations that fuel medical advances, but also innovations in service delivery that improve citizens' experiences of public services and improve value for money.

Third is the importance placed on ***engagement*** of all stakeholders in complex adaptive systems. The notion that clinicians, citizens, industry, policy makers, and others must come together to solve difficult problems in health care – that change cannot come solely from the top down – is a recurrent theme. New skills, knowledge, and styles of leadership are required to support complex adaptive systems; equipping individuals inside health-care organizations as well as institutions themselves with the tools to get value out of stakeholder engagement is a necessary component of such engagement.

Finally, debates and discussions about Canadian health care frequently come back to the fundamental principle of ***equity***. This value underpins Canadians' pride in their public health-care system and remains central in discussions about health system improvement.

A future embedded in a global context



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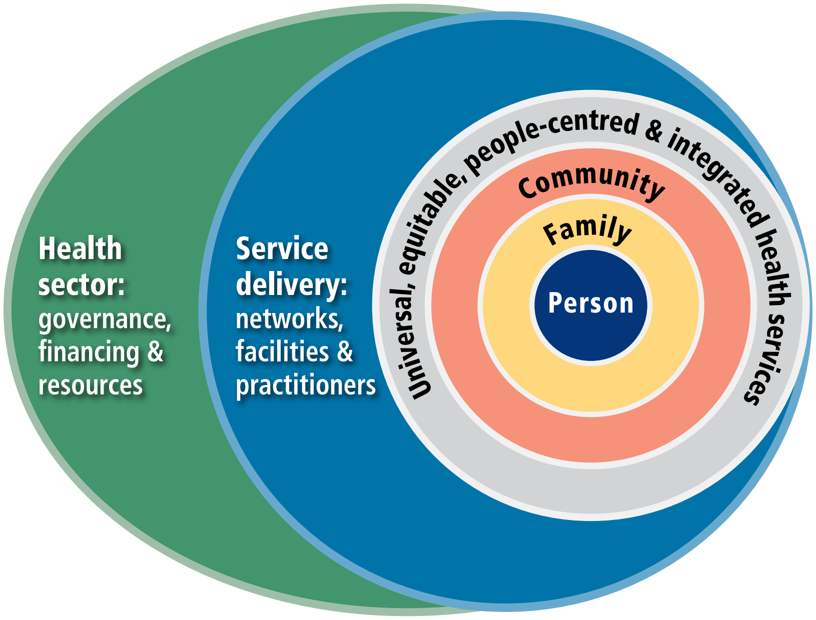
The World Health Organization's (WHO) model of Integrated, People-Centred Health Services (IPCHS) represents the emerging global consensus and vision for health systems of the 21st century. It is a comprehensive framework that was adopted by all WHO member states, including Canada, at the World Health Assembly in 2016. The framework emphasizes that people are at the centre of care. It also promotes the need to provide a continuum of care across different levels and sites according to individuals' needs throughout their life course.

An essential pillar to achieving this is a health system built on modern governance, resources, and data, as well as a broader infrastructure that balances social and health-care investments. As we explored this model and considered it in the Canadian context, it became clear that institutions like PCHOs have the potential to be critical tools in the emergence of integrated, people-centred health systems. In each of the following three sections, we discuss the components of the framework through a Canadian lens.

"Health Sector and Service Delivery" networks: Learning health systems



Health leaders around the world are embracing learning health systems (LHS) approaches. Their goal is to create better systems in which patient care is continuously informed by the meaningful use of data, evidence, and research. (This approach aligns with the left-hand side of the WHO model.) In fact, in learning health systems, the relationship between research and practice is redefined as a continuous feedback loop, with learning flowing from the patient's immediate reality to the laboratories where innovative solutions are imagined and tested and, inversely, from the desks and computers of data scientists to the clinical settings where health-care providers identify the options they will discuss with their patients.

What is particularly exciting today is the ability to leverage big data to exponentially magnify the potential impact on care. In a world inherently constrained by scarcity, data-driven decision-making should be an enabler of better, more timely choices.

> "A learning health system is "one in which science, informatics, incentives, and culture are aligned for continuous improvement and innovation, with best practices seamlessly embedded in the care process, patients and families active participants in all elements, and new knowledge captured as an integral by-product of the care experience."
>
> *IOM (2013).* Best Care at Lower Cost: The Path to Continuously Learning Health Care in America

Learning health systems augment their data sources to include not only traditional metrics, but also patient-reported metrics (such as patient reported outcome measures and patient reported experience measures, which are used to support performance measurement and quality improvement) that describe people's experiences of illness and other relevant information on their personal reality, from housing to family relations to education to employment. If our future health systems are to be centred in high-performing primary care, a great deal of data and knowledge will have to concentrate on social contexts of patients.

Where appropriate and possible, learning health systems will also eventually draw on data from the private sector – whether from private providers of health care or producers of wearable devices – to help individuals and communities improve health. To be successful, those efforts must be supported by regulation that protects the public interest and simplifies the route to success for industries working in that public interest.

The Clinical Practice Research Datalink (CPRD) in England

The CPRD is a governmental, not-for-profit research service that aims to securely provide anonymized primary care records for public health research through an accessible online platform. CPRD data is used to drive improvements in drug safety and inform best practice and clinical guidelines. For example, these data have been used to confirm the safety of the MMR (Measles-Mumps-Rubella) vaccine, inform cancer guidelines, and influence the management of hypertension in diabetics. Currently, CPRD is also using primary care data in clinical trials, contributing to the generation of real-world evidence on the efficacy of treatments, such as new therapies for diabetes patients.

In building learning health-care systems, Canada can draw on one of its strengths: our ability to capture data on the entire population through our single-payer health-care mode. Indeed, organizations like Manitoba's Centre for Health Policy and Ontario's Institute for Clinical Evaluative Sciences are already world leaders in leveraging the research potential from routinely collected health administrative data.

However, to enable learning health systems to take root, our health systems need to be fully electronically enabled and inter-operable. Data from large administrative data sets, electronic health records, and patient disease registries need to be linked and available to health-care providers in ways that respect privacy but that also allow rapid turnaround, so that providers and organizations can adjust the services they deliver in response to feedback. Furthermore, patients must be able to access their own data and information and understand how their outcomes compare to the outcomes of others. And finally, researchers must be able to access the data they need to answer questions that can yield health-care improvements – both from the world of "big data" and – in appropriately anonymized and secure ways – from EHRs across the country.

> "Critical factors for success include data availability, underlying architecture, quality assurance and governance, as well as issues related to privacy and security, capacity and skills in managing and analyzing health care data, and a 'data-ready' culture."
>
> *Mamdani and Laupacis (2018),* CMAJ.

Data currently exists that could be used to improve care in hospitals, primary care environments, community settings, and health regions across the country. Unfortunately, the underlying architecture to support this meaningful use and enable continuous improvement across health systems does not yet exist in Canada. This was a theme that we heard throughout our consultations. Infrastructure has been built and electronic health record systems purchased across the country, but two key outcomes are still missing: an inter-operable set of electronic systems and a "single" accessible electronic record for every Canadian patient as a critical means to achieving coordinated, integrated care.

> "Engagement of citizens and health providers in a Learning Health System is necessary for the effective scale-up and spread of data-driven interventions to achieve targeted goals. Implementation of technology-assisted solutions requires collaboration and partnering between public and private sectors. Our health-care system requires tracking of health information by patients, providers and experts in performance evaluation to achieve continuous quality improvement and enhanced self-management."
>
> *– Written submission*

The necessary architecture is not just digital of course: without changes to regulatory and statutory frameworks, the sector will not be able to align incentives and other levers to achieve system goals. For example, the different approaches to addressing privacy across the country are a barrier, as are federal regulations governing electronic data privacy as prescribed in the Personal Information Protection and Electronic Documents Act (PIPEDA). In addition, there continues to be a digital divide in Canada with gaps in broadband access in rural and northern communities.

Beyond data, IT, regulation and other enablers, leadership is the other critical component of a Learning Health System. LHS are data driven, but to benefit from the potential of new information and to attract and retain collaborators, a new type of leadership and set of skills are needed to support system improvement. Organizational capacity for transformation within the delivery side of the system is crucial. Canada has been challenged in all these areas.

The fragmented structure of Canada's health systems presents challenges to achieving effective learning health systems, particularly as compared to the relatively closed system of Kaiser Permanente in the U.S. or the National Health Service in England. To help overcome these challenges, "learning health-care networks" have begun to spring up across the country as groups come together to try to build the relationships needed for continuous learning.

The Strategic Clinical Networks of Alberta are an example of how one jurisdiction is tackling the challenge. Even in the absence of a complete set of data, IT and infrastructure building blocks, these 14 networks include researchers, physicians, patients, and managers "who work in specific areas of health with the goal of finding new and innovative ways of delivering care that will provide better quality, better outcomes and better value for every Albertan." In effect, the SCNs are nascent Learning Health Networks

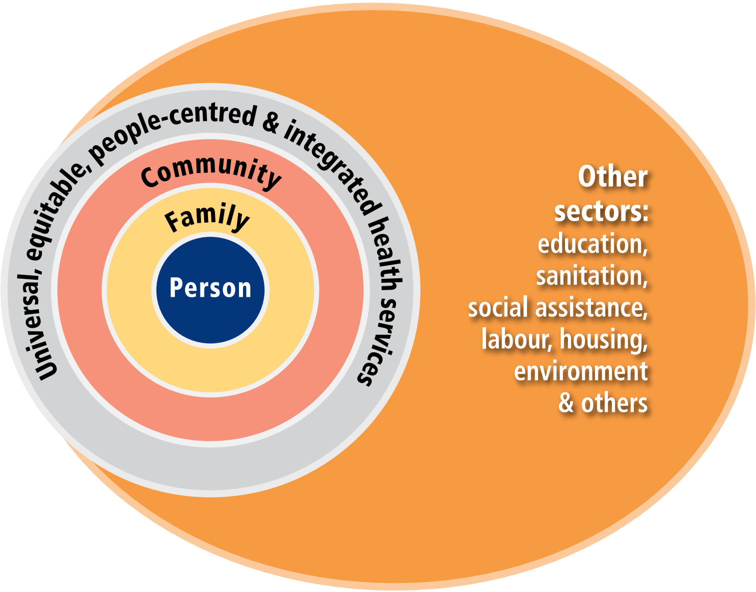
Kaiser Permanente's Journey Towards a Learning Health System

One of the early leaders working towards a learning health system was Kaiser Permanente in the United States. Its HealthConnect EHR system has been implemented in each of Kaiser's 454 medical offices and 36 hospitals, making it possible to coordinate care between the physician's office, the hospital, the radiology suite, the laboratory, and the pharmacy. In addition to improving the coordination of care for its members, this EHR system enables Kaiser Permanente to perform internal observational quality improvement studies that involve mining data from its enrollees' EHRs. Kaiser also participates in a research Network that maintains clinical information on some 15 million patients.

that have focused on clinical leadership, organizational capacity-building, and service delivery transformation while they wait for the infrastructure around them to catch up. The networks tend to cover a range of health priorities, such as addiction and mental health; cancer; critical care; diabetes, obesity and nutrition; seniors' health and surgery. Not all networks, however, are disease specific; for instance, in addition to its network for seniors' health, Alberta's Strategic Clinical Networks include one on population, public, and Indigenous health.

Other examples of emerging learning health networks in Canada – in spite of the absence of all the infrastructure building blocks – include CIHR's Strategy for Patient-Oriented Research (SPOR) Networks and the Canadian Research Initiative in Substance Misuse (CRISM). The network approach is now championed for spread and scale-up by health leaders around the country, with increasing success.

"Other Sectors": Embeddedness in the social determinants of health



The social determinants of health (SDOH) – social and environmental conditions such as income, education, housing, food security, and others – are widely recognized as the most important factors shaping the health of populations and individuals. Their importance is reflected in the right-hand side of the WHO framework, which illustrates the interdependence of health and health care with social programs. This framing is in keeping with a global shift to embed health policy in the context of social policy.

Social Pediatrics in Quebec

An example of a home-grown clinical best practice embedded in the social determinants of health is Quebec's social pediatrics model. Developed by Dr. Gilles Julien, this approach focuses on supporting the development and well-being of children from vulnerable backgrounds through provision of holistic services to meet a range of needs of the child and family, including medical, social and legal services. There are now over twenty social community pediatric centres in Canada, primarily in Quebec.

> "The overarching goal should be one of building a 21st century health-care system; this will encompass initiatives not only from Health Canada but from all areas of government that impact the health care and well-being of Canadians. All the social determinants of health must be taken into consideration and the government ministries that have responsibility for programs that impact the social determinants must be engaged with Health Canada."
>
> – *Written submission*

Canada was an international leader in understanding the SDOH from the time of their first official articulation in the Lalonde Report in 1974. Canadian researchers continue to lead thinking about how investments in the SDOH can affect health outcomes. Looking forward, it is clear that this approach is an important part of 21st century health systems in Canada.

There is a clear and inextricable connection between health and social policy, and an inevitable impact, at multiple levels, of one on the other. Where the evidence is clear that public dollars would be better spent on implementing social policy programs because they produce better health outcomes, then this also suggests that Canada's 21st century health systems will need to support redistribution and a more strategic allocation of public resources.

The core: defining features of 21st century health systems

The central core of the WHO IPCHS framework articulates an existing international consensus about the critical elements of all health systems. Where possible, the PCHO suite should be designed to support the implementation of these elements.

Universal and Equitable

Canadians have equitable access to a range of insured services and goods that improve health outcomes.

Canadians have enjoyed universal and reasonably equitable access to an array of publicly funded physician and hospital services since the 1960s. The *Canada Health Act* of 1984 enshrined universality and accessibility as two of the five key conditions for provinces and territories to receive federal health transfers.

Canadian Medicare is "narrow and deep", with provincial and territorial health insurance plans providing universal coverage for medically necessary hospital and physician services. Other essential services and goods are financed through a mix of public and private insurance and payments made out-of-pocket. Over the last few decades, as Canadians' health-care needs have shifted from acute to chronic care and governments have reacted differently to the pressures for better public coverage, the fragmentation of the basket of insured services has worsened. The effect has been also to increase inequities in access for services outside that core basket.

It is evident that the vulnerabilities of our current system, as outlined in our mandate, have arisen at the margins of the public basket – whether in mental health and addiction care, equitable access to pharmaceuticals, or strengthened home and community care. In a health system responsive to Canadians, it is natural to expect that no patient or family member has to worry about being unable to fill a necessary prescription, age with dignity at home, or find mental health treatment because of cost. Many other countries are doing better and for less. Access for everyone – no matter who they are and where they live, based on the same terms and conditions – is a Canadian expectation.

People-centred

Patients, families, and the public are involved in health-care decision-making at the individual level and engaged in health-service design in their local communities.

Public policy decisions in health care need to be made in meaningful partnership with the public. Efforts in this direction are already occurring in other jurisdictions around the world.

> "Current models of PPI [patients and public involvement] are too narrow, and few organisations mention empowerment or address equality and diversity in their involvement strategies. These aspects of involvement should receive greater attention, as well as the adoption of models and frameworks that enable power and decision-making to be shared more equitably with patients and the public in designing, planning and co-producing healthcare."
>
> *Ocloo and Matthews (2016),* BMJ Quality & Safety.

The critical linchpin of patient engagement and empowerment is that the patient is able to access his or her own integrated electronic health record. In addition, there are tailored tools that have been validated at the level of patient care. The science of shared decision-making offers practical tools to help equip people to be active partners in their own care.

At the health-care organization level, institutions are implementing ways to embed people-centred care. Patient and family advisory councils, for example, are seen as an important mechanism to fulfill requirements for improving quality and patient experience. Ongoing research into best practices for patient and public engagement is helping to guide organizations in ways to improve the effectiveness of that engagement. The accreditation of health-care delivery organizations and the world of online reporting about people-centred metrics are other tools to enable people-centred care.

> "Ultimately, if we want to deliver on the promise to improve the patient experience, all of our organizations are going to have to walk the talk, and that means making patient influence felt system-wide. It is time to elevate the recognition of patient experience as the key driver of system transformation if we are to build a compassionate and sustainable system that serves the health needs of the entire population."
>
> *– Written submission*

The health systems of the future – and the changes to get to that future – need to be populated with informed, involved, and active participants engaged not only as patients, family members, and caregivers, but as community members and citizens. Citizens must drive changes, co-design services, and help shape policy to improve quality and experiences.

Integrated

Health and social services are organized around the needs of patients and provided close to home, centred in high-performing and accessible primary care.

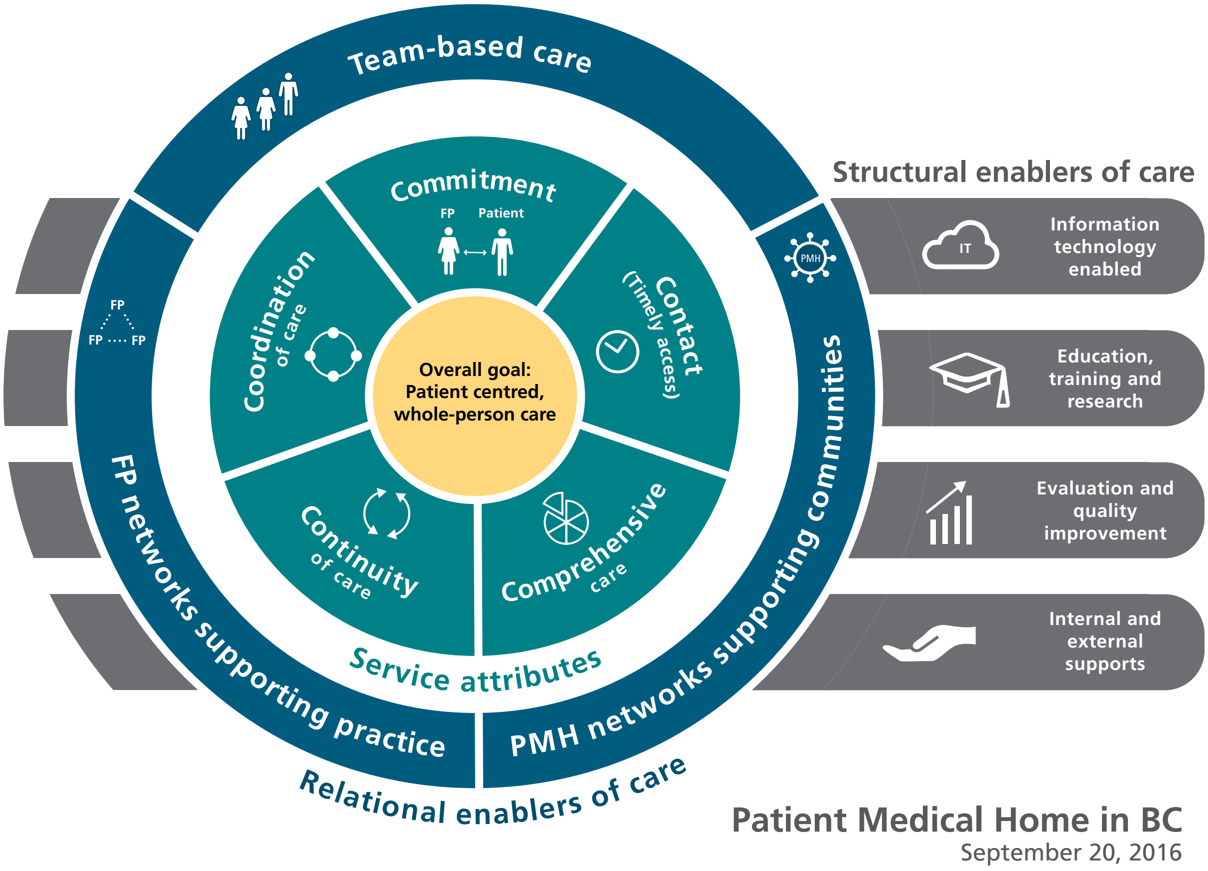
The foundation of integrated health systems is a strong primary care sector. Studies have shown that countries with a strong primary care sector have demonstrably better health outcomes, better equity, lower mortality rates, and lower overall costs of health care. An appropriately resourced primary care sector can also effectively meet the vast majority of health needs people encounter throughout their lives.

The Patient Centred Medical Home

One way of describing integrated care is the Patient-Centred Medical Home (PCMH) model, in which primary care serves as the hub and primary point of contact for care coordination. In this model, patients receive access to comprehensive primary care provided by teams of health-care providers. The care is coordinated, accessible, relationship-based, and focused on achieving the best possible health outcomes for patients.

Primary care is the fulcrum for seamless, coordinated services for patients. It is where most clinical interactions take place, and where relationship-based care is established, starting with patients identifying their needs and priorities. It is not simply, or only, having a personal family physician. People require access to a broad scope of services carried out by teams or networks of providers working collaboratively with the patient’s needs at the forefront, to ensure they receive continuous care over time and place. That “medical home” becomes the base from which other services are accessed and coordinated across the system.

Provinces and territories in recent years have experimented with changes to the primary care sector to encourage more integrated care. For instance, some have introduced or experimented with non-fee-for-service payment models for doctors such as capitation, salary, targeted payments, and blended models. Alberta, Quebec and Ontario in particular have implemented different models of team-based primary health-care delivery in the form of Primary Care Networks (Alberta), Family Health Teams (Ontario), and Groupes de Médecine Familiale (Quebec). Community Health Centres across Canada, in which physicians are salaried employees, represent another model of team-based primary care that has been successful for many populations.



Patient Medical Home in BC
September 20, 2016

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Criteria for Enabling 21st Century Health Systems

Do the PCHOs enable the emergence and continued growth of 21st century health systems in Canada?

Any suite of PCHOs must support the emergence and maintenance of 21st century health systems in Canada that are:

- ✓ Learning Health Systems:
  - Data-enabled with a digital health architecture built around patients;
  - Capable of providing timely access to evidence to guide and support innovation, individual clinical decision-making, and system quality improvement;
  - Supported by regulatory and legislative frameworks that foster alignment of incentives to achieve system goals; and
  - Continuously building and supporting skilled clinical leadership.
- ✓ Universal and Equitable:
  - Canadians will have access to the most appropriate, medically necessary services and goods in a modern "Medicare" basket.
- ✓ People-Centred:
  - Patients and the public will be involved in personal health-care decision-making and health system decisions.
- ✓ Integrated:
  - Health and social services will be coordinated and provided collaboratively by a team of providers, organized around the needs of patients and delivered close to home, and centred in high-performing and accessible primary care.
- ✓ Embedded within social determinants of health:
  - The social determinants will be considered and acted upon at all levels of the system, from the patient's home or bedside to the health system's leadership in provinces, territories, and the federal government.

The role of PCHOs

Like all countries that have endorsed the WHO model, Canada has declared a destination for its 21st century health systems. But such declarations do not in and of themselves produce results. It is possible for Canada to continue to make incremental rather than transformative progress, eschewing both coordination and a shared bold vision. If Canadians choose instead as a country to accelerate reform, much work remains to be done.

Despite making tremendous local progress, provinces and territories cannot arrive at a shared destination in isolation from one another or in the absence of an engaged federal partner. Given the complexity of the tasks involved; the need for standards around data, information technology, privacy, confidentiality and security; the demands for public engagement at the highest levels of decision-making; the calls for transparent and coordinated interactions with industry; the need for infrastructure that crosses borders between jurisdictions and sectors; the importance of learning across borders; and the expectations of Canadians around consistency of coverage and quality of service, these are tasks that can only be done at the national and federal levels.

As we have seen, the federal role in health policy has many dimensions and there is much that can be done within the core of the health portfolio to support system change. But we believe that there are also important roles that organizations at some distance from the core may be able to play more easily. If the PCHOs continue to exist in some form, they must be agents of Canada's commitment to 21st century health systems. If the PCHOs are recast as shared national tools working to put in place shared infrastructure and resources for capacity development to implement a shared vision for transformed health systems across the country, their impact can be tremendous.

Canada has committed to an agenda that reflects national and international priorities in health. The country has made piecemeal progress on advancing this agenda, with regions, provinces and territories, and health systems bravely taking on components of it. But to make meaningful and lasting progress on all these fronts, a systematic and more determined approach is needed. The PCHOs can be key players in that approach.

CHAPTER 7

Summary of Criteria for Meeting Canadian Health-Care Imperatives

In this chapter, we reiterate the three sets of criteria against which the relevance of the current suite of PCHOs – and the possible solutions we offer to the Minister as options for the future – can be measured. These criteria arise from the extensive work outlined in previous chapters and are presented here as a complete set:

1. **Can the PCHOs effectively address the current vulnerabilities of Canadian health systems, in partnership with the provinces and territories?**

   The review's terms of reference asked us to consider the ability of the current suite of PCHOs to "advance progress on pan-Canadian health-care priorities and federal objectives" in relation to current issues figuring high on the list of the federal government's health and health-care priorities. The same question obviously should be asked of any restructured PCHO suite. Furthermore, it is essential that action on these vulnerabilities be taken in partnership with the provinces and territories.

2. **Are PCHO mandates consistent with the federal government's duties and functions in health policy?**

   In the context of Canadian federalism, some dimensions of the federal role that have been obvious historically might not be currently expressed by government-funded institutions. We have been careful to ensure that any recommendations are consistent with well-established precedent. As a set of criteria, this filter was an inoculation against impractical solutions – but equally, it was a reminder not to think too small. The federal government's renewed attention to health policy and its appetite for change – as evidenced by this review – makes the need for a PCHO suite that can help serve ambitious shared goals even more pressing.

3. **Do the PCHOs enable the emergence and continued growth of 21st century health systems in Canada?**

   The 2016 World Health Organization Integrated, Person-Centred Health System (IPCHS) framework is comprehensive and brings a global perspective to our review. Because it has been endorsed by the government of Canada and reflects an international consensus, we have used this framework with a Canadian lens to describe what the future is likely to hold, and therefore what the PCHO suite should be structured to support.

SUMMARY TABLE
Criteria for Meeting Canadian Health-Care Imperatives

CRITERION 1: **Can the PCHOs effectively address the current vulnerabilities of Canadian health systems?** (SEE CHAPTER 6)	***In partnership with provinces and territories, any suite of PCHOs must have the capacity to:*** ✔ Support strong pharmaceutical policy (affordability, access, appropriate use) ✔ Embrace health data and IT for innovation; support learning health systems ✔ Help the spread and scale of innovation through pan-Canadian collaborative approaches ✔ Facilitate expanding/reshaping of the basket of services according to need/evidence ✔ Enable deep patient and public engagement in personal and health system goals ✔ Assist the development and operation of comprehensive and integrated primary care across Canada ✔ Encourage reconciliation and accelerate improvements in Indigenous health and wellness
CRITERION 2: **Are PCHO mandates consistent with the federal government's duties and functions in health policy?** (SEE CHAPTER 4)	***Any suite of PCHOs must be consistent with the dimensions of the federal role as:*** ✔ Regulator – protecting the health and safety of Canadians ✔ Catalyst and spreader of social innovation – championing innovation ✔ Custodian – preserving the integrity of our public health systems ✔ Equalizer – leveling access and outcomes among regions of the country ✔ Capacity builder – moving beyond transfers to equip all provinces and territories with the necessary skills and capabilities ✔ "Midwife" of 21st century health systems – enabling large-scale transformations in health-care culture and practice

SUMMARY TABLE
Criteria for Meeting Canadian Health-Care Imperatives

CRITERION 3: **Do the PCHOs enable the emergence and continued growth of 21st century health systems in Canada?** (SEE CHAPTER 6)	***Any suite of PCHOs must support the emergence and maintenance of 21st century health systems in Canada that are:*** ✔ Learning Health Systems: • Data-enabled with a digital health architecture built around patients; • Capable of providing timely access to evidence to guide and support innovation, individual clinical decision-making, and system quality improvement; • Supported by regulatory and legislative frameworks that foster alignment of incentives to achieve system goals; and • Continuously building and supporting skilled clinical leadership. ✔ Universal and Equitable: • Canadians will have access to the most appropriate, medically necessary services and goods in a modern "Medicare" basket. ✔ People-Centred: • Patients and the public will be involved in personal health-care decision-making and health system decisions. ✔ Integrated: • Health and social services will be coordinated and provided collaboratively by a team of providers, organized around the needs of patients and delivered close to home, and centred in high-performing and accessible primary care. ✔ Embedded within social determinants of health: • The social determinants will be considered and acted upon at all levels of the system, from the patient's home or bedside to the health system's leadership in provinces, territories, and the federal government.

One of our key informants contributed the term “imperative” to describe some of the objectives Canada’s health systems must achieve to reach the final destination. It is indeed appropriate to think of issues of Indigenous health or primary care or prescription drug coverage in such terms. Yet in the end, we came to be convinced that all the criteria listed above function together as a set of social, economic and even in some cases, ethical imperatives. We recognize that there is a cost to any change to the PCHO suite, but the need for a PCHO suite that can respond to these critical imperatives outweighs the disruption of the status quo.

CHAPTER 8

A Look at the Status Quo

During the review, we heard a number of recurring observations relating to the capacity of the PCHOs to respond to changing health system needs and pressures. Specifically, we heard that what has helped to get Canadian health systems to where they are today is not what will help to get them to where they need to go in the future. In our meetings with the leaders of the organizations themselves, as well as in discussions with key informants and stakeholders, and from the written submissions, we were told repeatedly that the PCHOs will need to change for them to remain relevant and responsive to a changing world.

To test the validity of these comments, we examined the current suite of PCHOs against the three sets of criteria discussed in Chapter 8. As noted earlier, these criteria reflect the forward-looking nature of the review, tying the future of the PCHOs to the requirements for transformed 21st century health systems. It became apparent to us that, when measured against each of the sets of criteria, the status quo is untenable. While meeting some of the elements in each set of criteria, the PCHO suite as currently configured also has gaps and misalignments that cannot be fixed purely with changes in processes or performance indicators.

Furthermore, even where the existing PCHO suite meets elements of the criteria, the reach of many of the individual organizations within the suite is often quite limited, due to constrained funding and lack of connection to the priorities of local health systems. In the case of some of the larger organizations in the suite, attempts to close gaps have led to a lack of focus that makes it onerous to make concerted progress on clear goals. Finally, the persistence of some of the organizations in their current forms has come to be a hindrance to achieving integration – one of the bedrock requirements in 21st century health systems.

These are not criticisms of the committed and hard-working individuals within the PCHOs who are passionate about the causes they serve. It is a structural reality that speaks to the need for a more streamlined set of organizations with the clarity of mission and the necessary funding and reach to equip them for success. Sometimes commitment to a cause requires a recognition that the cause is better served through alternative structures than those we have come to take for granted.

Accordingly, in Chapters 9 and 10, we set out four possible scenarios for retooling the organizations, each of which meets all of the elements of our criteria.

At the same time, while significant structural retooling is necessary to support Canadian health systems, we are also mindful of the need for a number of process improvements to support success, no matter which option the Minister chooses for the future. These are necessary – but not sufficient – changes that will serve to increase organizational responsiveness and more cost-effective use of tax dollars to support and improve Canada's health systems. Since there are no regulatory, legislative, or policy barriers in the way, many of these can also serve as a stepping stone for change, while the essential retooling of the suite described in Chapters 9 and 10 takes place.

1. The purpose of the PCHOs, and the functions they perform individually and collectively, are not clear to health system stakeholders or to the public. Therefore, no matter what the future configuration of PCHOs, clear statements of purpose and mandates are needed across the suite.

During our consultations, we were surprised to learn that of the many stakeholders we consulted, most were aware of only a small subset of the PCHO suite. It is evident that there is little clarity about the organizations, their purpose, and their functions in health systems; much less clarity about what they contribute; and even less about whom they serve.

> "Who is the client? Is it organizations, public health, the provinces and territories? Regional health authorities? Other PCHOs? The public?"
>
> "They should serve Canadian citizens – and their constituents are the health delivery sector."
>
> *– Key Informants*

The lack of clear organizational purpose is not for the PCHOs to own alone. In the push to publicly express commitment to a cause, the federal government has tended to create new structures to address emerging or pressing issues. While that may not always be the wrong impulse – in fact, there are instances when the need for a pan-Canadian capacity has cried out for a new, free-standing organization – the focus tends to be on structures rather than outcomes. Organizations become symbols of a government's commitment to a cause, and any suggestion of sunsetting organizations is interpreted as a retreat from a commitment to a problem or population.

Thus, once organizations are created, it is difficult to wind them down, regardless of whether they have fulfilled their original mandate. This leaves organizations scrambling to justify their continued existence, at times by moving into areas outside of their original mission. Of course, flexibility is not necessarily a sign of confusion; the new task may in and of itself be worthwhile; adjusting activities to meet changing needs and circumstances can make good sense. But the question of whether new work duplicates other efforts or would be better undertaken elsewhere is too often unasked, as is the question of whether new work is strongly aligned with health system goals and capacity on the ground. When this repeats across organizations, the tangle of roles and the rise of territoriality that inevitably follows can make collaboration and cohesion an unlikely outcome.

> "We meet every problem with a structural solution…. Structure should change in the service of outcomes."
>
> *– Key Informant*

In summary, many PCHO functions and activities overlap and are duplicative, not only across the suite but with the public service or other organizations in the health sector. In other cases, there are also significant gaps where leadership and action are lacking. Overarching policy direction is necessary, if only to provide clarity about the allocation of roles and responsibilities. It would also be prudent to make use of "sunset clauses" in most if not all contribution agreements, so that when priorities change there can be an appropriate pause to determine whether new work inside an existing organization is in fact the right response to shifting needs.

2. The priorities of the PCHOs are set in isolation from each other, and often from federal, provincial and territorial health system priorities. No matter what the future structure of the suite, joint strategic planning and joint work planning would go a long way to ensuring impact and reducing competition.

We heard concerns from many stakeholders about how PCHOs set their priorities. The concerns relate to the fact that as self-governed and self-directed entities, the organizations operate in isolation with little to no coordination with other PCHOs, and often inattentive to federal, provincial or territorial priorities. Most PCHOs have broad consultation exercises every few years that involve their stakeholders in setting future priorities for the organization. But these exercises can be fraught, the quality of the priority-setting highly variable, and their effective translation into concrete work plans with meaningful success metrics differs.

Alignment with provincial and territorial priorities is elusive by design. The PCHOs often set priorities for three to five years, a period during which many governments can turn over and priorities can change. There are usually FPT representatives participating in goal-setting, but in most instances, those are individuals aligned with a particular organization because of their expertise or background, without necessarily a cross-cutting view of government priorities.

Finally, there is rarely substantive coordination of timing or substance across the strategies of the PCHOs. Not only do the PCHOs not see themselves as part of the same team, with a clear understanding of goals and contributions, they behave as though they are competitors – for dollars, government and stakeholder attention, and public profile. While collaboration on shared projects has improved somewhat over the last two years – for example, several PCHOs responded to the federal Minister of Health's request that they come together to work on the opioid crisis – it is clear to us that each PCHO prefers to steer in its own direction.

When we spoke with PCHO leaders, they expressed concern and frustration about the poor – or non-existent – coordination among the suite. While they have worked to build some initial bridges, their efforts have not moved significantly beyond administrative back-office collaboration.

But in fairness, as one representative said, "No team; no coach. No coach; no team." The PCHOs are looking to Health Canada for direction, and it must be acknowledged that Health Canada's priorities themselves have often been in flux. In this context, it has been difficult to determine joint priorities. With reduced policy capacity at Health Canada over the last decade and a concomitant shift towards accountability for dollars spent rather than impact achieved, the suite of PCHOs has been left without adequate strategic orientation on federal priorities.

We were also told repeatedly that little flexibility exists to change course once priorities are set – in no small measure because of the structure of funding agreements with Health Canada. What results, we were told, is overlap and duplication of effort, and an absence of any ability to respond to emerging issues.

3. Evaluations of PCHO performance lack independence and do not always focus on the most appropriate metrics. No matter what the future composition of the suite, meaningful metrics to drive organizational performance and independent evaluations of individual and collective PCHO impact are needed.

To help us understand the ability of PCHOs to adapt to new pressures, we sought out information on the degree to which the PCHOs undertook independent and unbiased evaluations – both to assess their activities in terms of value and impact and to drive organizational improvement and learning. We found that when the evaluations were available, they were generally self-commissioned consultant evaluations or the result of federal government reviews, rather than independent evaluations of the impact, individual or collective, of the PCHOs' work. Available evaluations tended to focus on specific PCHO programs or initiatives.

We also noted that many PCHOs tend to rely largely on process metrics, such as the number of meetings convened or website hits, to measure their performance. While these metrics tell us something about the level of activity in an organization, they do not reveal what is most relevant. For example, what does the convening of stakeholders lead to? Around whom is it centred? And most importantly, what is the outcome of these convening activities – what do they contribute to, and what value do patients, providers, system managers, or governments get from them? How do the PCHOs know that there is meaningful use of their products, services, and interventions in Canada's health systems? And how are their teams held accountable for real and meaningful change?

It is critical that PCHOs be able to demonstrate health systems impact. This requires measurable objectives based on clear and transparent indicators that reflect meaningful use of their work. It was suggested in our consultations that PCHOs need to embrace a goal of improvement across metrics, rather than a narrow focus on specific targets and levels which too often represent a floor rather than a ceiling.

Collective impact occurs when a group of actors from different sectors commit to a common agenda for solving a complex social or environmental problem. It is a structured approach to collaboration that includes five core conditions to successfully achieve collective impact:

1. Common Agenda
2. Mutually reinforcing activities
3. Continuous communication
4. A backbone function/infrastructure
5. Shared measurement system

Continuous learning is critical to achieving collective impact. It is important to understand that collective impact is not a solution in and of itself, but rather it a problem solving process that necessitates all leaders involved in the initiative to embrace opportunities for genuine learning and to openly share their information and observations with others; and most importantly, all partners must be willing to adapt their strategies quickly in response to an continuously evolving environment.

Preskill et al. (2013). Guide to Evaluating Collective Impact. *Collective Impact Forum.*

The impact of the PCHOs should be measured not just for the individual organizations, but also collectively. The collective impact framework approach provides an effective and structured approach to drive change and includes an emphasis on developing a shared measurement system to monitor performance, track progress, and drive organizational learning. Drawing from the wealth of guidance and support in this area, the PCHO suite could choose to embrace and embed the power of collective impact approaches and evaluations into its work.

4. PCHO governance models are unnecessarily disparate and some are unmatched to the task. Streamlined governance is needed, once the purpose and structure of the suite has been clarified.

As independent organizations, the PCHOs are all governed by boards of directors. The composition of these boards varies: in some cases, boards are filled largely with provincial and territorial deputy ministers and delegates; others have members of the public or content experts sitting as directors. Some have been modernized through governance review – CADTH and MHCC are good examples – while others have remained relatively constant in their structure and processes. Some rely heavily on competencies while others weight representation. This disparateness is not because of any principled reasoning, but rather the result of an absence of collective thinking about what the "right" or "best" model(s) of governance might be across a suite of organizations that should presumably be doing work in service of some common goals. There have been moves in the right direction that should be recognized – including smaller and more diverse and skills-based boards that make better use of available expertise. However, much more work needs to be done to improve structures and processes around governance across the suite.

We also learned from our discussions with provincial and territorial deputy ministers that some of the governance models can be taxing on smaller jurisdictions with limited resources. Finding the people, time, and funding to participate meaningfully on so many boards can be onerous. And while engagement with senior-level decision makers is important, the use of government representatives on boards to seek that engagement (rather than through some other mechanism) may cause problems. This includes provincial and territorial governments as well as the federal government.

PCHOs with boards heavily weighted with government representatives may be uncomfortable speaking truth to power and experience situations that put organizations at odds with members of their board. Some members may be uncomfortable with an action that is in the interests of Canadians but might be tricky or costly for a provincial or territorial government to manage. A federal government representative who anticipates a possible funding ask arising from a board decision might also be reluctant to express support.

Other boards are disconnected from research and clinical communities – we heard that the lack of content expertise is a real challenge on some boards – while still others lack adequate patient and public involvement. Finally, board composition generally struggles to reflect the diversity of Canada, and in some cases fails entirely – except perhaps in a geographic sense and often with the notable exception of Quebec.

Composition of Boards of Directors

PCHO	Breakdown of Board Composition
CIHI	Composed of individuals from different health sectors and regions, with following representation: • 2 federal appointees (nominated by deputy minister of health and Chief Statistician) • 5 provincial/territorial appointees • 9 regional and other members
CADTH	Composed of independent chair; and regional representatives from FPT governments, health authorities, academia, and the public, with the following representation: • 1 federal appointee (nominated by deputy minister of health) • 6 provincial/territorial appointees • 6 other members
Infoway	• 2 federal appointees, including the chair (nominated by the deputy minister of health) • 5 provincial/territorial appointees • 4-6 independent directors
CFHI	• Up to 13 directors selected from researchers and decision-makers in the health sector, including 1 federal (nominated by the deputy minister of health)
CPSI	• 1 federal appointee (nominated by Health Canada corporate member) • 6 provincial/territorial appointees • 9 other members
CPAC	Composed of representatives from cancer organizations; patient, family, and survivor groups; the Indigenous communities; and governments, with the following representation: • 1 federal appointee (nominated by the minister of health) • 5 provincial/territorial appointees • 14 other representatives • 2 observers, of which 1 is federal
MHCC	• 2 federal appointees, including the chair (nominated by the minister of health) • 1 provincial/territorial appointee (nominated collectively by the provinces and territories) • 12 other members
CCSA	• 5 federal appointees (appointed by the Governor in Council on the recommendation of the minister of health) • 8 members-at-large from the business community, labour groups, voluntary and professional organizations

5. PCHOs lack capacity to be able to deliver on pan-Canadian promise. No matter what their future configuration, diversity of many forms must be a core objective for their teams and their structures.

For the most part, PCHO leadership and teams are not sufficiently intergenerational, diverse, or multi-disciplinary. There is often a revolving door of leadership in which people work in more than one or several PCHOs over the course of their careers. This is not always a bad thing, but there is a perception that it has created a class of individuals who migrate from one PCHO office in Ottawa to another, which if true, may contribute to disconnection from the health systems of the country. Most PCHO teams have under-developed mechanisms for engaging with the public and under-developed relationships with National Indigenous Organizations. With a few exceptions, there is little geographically distributed capacity and connections to provincial and territorial health systems as well as health-care providers and their organizations are weak: it has not escaped notice how Toronto- and Ottawa-centric the suite is. In addition, the PCHOs are not seen as functioning equally in both official languages. In particular, we heard from several informants that, as a whole, the organizations make only limited efforts to accommodate Francophone meeting participants or produce materials in both French and English, despite their claim to be "national" organizations.

We note that the organizations themselves recognize that these are issues needing action, and we heard from many about the steps they were taking to try to broaden their reach. Those efforts are critical, because to serve and support the 21st century health systems, PCHOs need:

- Diverse teams – with structures and recruitment practices supported by expertise and skill sets that reflect Canadian society and priorities, address current and emerging issues, and embed patient and public perspectives.
- Pan-Canadian capacity – with a regional presence and local customizability of actions, and leadership teams that are ethnically diverse, intergenerational, and reflective of Canada's population.
- True bilingualism – with practices and policies that recognize and accommodate the need for all Canadians to be able to participate in the organization's activities in the official language of their choice, including its governance.

6. The PCHO funding model diverts resources and hampers results. No matter what the future suite, Health Canada needs to explore more flexible models that reduce inefficiency and provide more meaningful accountability.

The time-consuming and overly bureaucratic process that PCHOs and Health Canada follow in crafting and monitoring funding contribution agreements is inefficient and ineffective, and inhibits PCHOs' abilities to respond to emerging priorities. It fosters an environment of mistrust and disrespects both Health Canada and the PCHOs whose staff must spend untold hours doing box-ticking paperwork. It also means that for every contribution agreement, public servants must be dedicated within Health Canada to managing it, while valuable personnel within the PCHOs are employed to answer their questions, diverting valuable public resources from health policy priorities.

The terms and renewal cycles of the PCHOs create perverse incentives. By necessity, the organizations spend considerable time and effort lobbying for renewed funding. Flexible funding models that liberate both sides from this process while creating more meaningful accountabilities is an essential step.

The introduction and use of cost recovery models within the PCHO suite was also an issue which surfaced repeatedly during our consultations. While some viewed this move as understandable in the face of uncertain government funding, we heard significant concerns about whether such models erode an organization's independence from industry or cause it to become a competitor with other privately funded organizations that do not benefit from federal funding. This is a serious concern and deserves a thorough discussion among PCHO boards and within Health Canada.

7. A lack of federal health policy capacity reduces the support available to PCHOs in their work. Stronger policy capacity is needed within Health Canada to provide strategic policy direction to and engage meaningfully with the PCHOs on the substance of their work.

From our consultation and analysis, it became clear that one cause of the reduction in the PCHOs' overall effectiveness and relevance was due to Health Canada's diminished policy capacity. This is not a criticism of the current complement of staff, but rather the inevitable result of a decade of erosion of such expertise, exacerbated by an emphasis on monitoring funding arrangements. This deficit has contributed to an insufficient focus among the PCHOs on relevant issues aligned with federal government priorities. It has also led over the years to a lack of overall strategic policy direction from Health Canada to the suite of PCHOs.

Deeper federal engagement in health policy requires a civil service with the capacity and relevant expertise to engage. For a future PCHO suite to fully support the policy goals of the federal government and not just the provincial and territorial governments, it needs a federal government partner. With the country facing complex health policy challenges that transcend provincial and territorial borders –including a growing focus on mental health, substance use, and the need for more appropriate prescribing of drugs – it would be beneficial for the PCHOs to be able to link with relevant experts within Health Canada.

8. The role of PCHOs in the Canadian health policy research ecosystem is unclear. There needs to be a better connection between PCHOs and the formal research community, and a clear delineation of roles with respect to conducting vs. enabling health policy research.

One of the issues that elicited frustrated responses from a cohort of stakeholders we consulted during the review centred on the PCHOs and research. Of course, organizations working to support learning health systems require some internal evaluation capacity and staff with the scientific expertise to work in a world of data and evidence. But this does not mean that PCHOs should be conducting large-scale research studies that could be better conducted by independent researchers. Some PCHOs were criticized for their seemingly random choices about what research to conduct, often without investigating whether similar studies were already underway or in the works within the research community. The need for rigorous scientific oversight over research activities within some PCHOs was also raised repeatedly, particularly in the absence of independent assessment processes. Some of our informants even questioned the appropriateness of PCHOs undertaking any research at all, whether or not they commission such work from academics through competitive processes, stating that research dollars should not be part of the PCHOs' core budgets.

We heard from many health sector stakeholders about the need for a significant expansion of practical, applied, policy-focused or "policy-ready" research in Canada. The research programs operated by CHSRF in its early years helped support this type of research, and there was an expectation that additional support would flow from CIHR and its Institute of Health Services and Policy Research when those programs were transferred from CHSRF. However, only a small portion of CIHR's budget (eight per cent) is dedicated to health services and policy research, with limited focus on evaluation and other applied policy issues. There is an opportunity for the PCHOs to work with CIHR (and perhaps Health Canada more broadly) to explore the potential for synergies in improving support for applied policy research. If commissioned extra-mural research is to continue to take place within the PCHO suite, processes will need to be developed to ensure that the research is both responsive to the agenda of the suite and of the highest scientific quality, and that it is thoughtfully linked to the Canadian scientific community.

Conclusion

The above process improvements will enable the PCHOs – no matter their configuration – to better achieve their organizations' goals to support improved health systems and health care. However, it is clear to us that this is not sufficient. It is also necessary to build capacity within Health Canada to better guide PCHOs along a policy direction consistent with both the broad federal role and renewed federal interest in partnering with provinces and territories on critical challenges to achieve needed system change.

Looking into the future, the most pressing question is the need to clarify roles and responsibilities. The "match" is poor between the list of PCHOs' current functions and the list of major vulnerabilities affecting our health systems. In fact, in some cases, it can be argued that the PCHOs contribute to the problems – for example, in encouraging fragmentation and siloing, or in duplicating the work of other organizations – rather than to the solutions.

Responding meaningfully to the legitimate concerns of Canadians demanding responsive, efficient, and high quality health systems should be an overt objective, and progress towards this goal must be measured for all PCHOs. Where there is an absence of appropriate mechanisms linking the actions of individual PCHOs with the institutions and people who have to implement transformations on the ground – providers, administrators, patients – the risk of funding activities with no effect nor value is high. To varying extents, efforts have taken place in recent years to pay more attention to implementation, but for many PCHOs the funds available to support these initiatives are scarce and the scope of each project is limited. The development of a set of intentional processes to integrate the work of PCHOs into a common set of pan-Canadian priorities could help establish better conditions for the spread and scale of innovations. We propose that the work of identifying such processes begin immediately within Health Canada, in partnership with the provinces and territories.

CHAPTER 9

Options for Change

Throughout the review process, we listened carefully for themes around how the PCHO suite could better address current vulnerabilities and enable the emergence of 21st century health systems. We heard a real desire from many quarters for meaningful support for system change underway in the provinces and territories, including imperatives such as comprehensive primary care for all, and modernized approaches to health data and information infrastructure. We also heard consensus around the need for real progress on Indigenous health. With a federal government that has expressed – and shown – genuine interest in health and social policy, there is now an opportunity to call the PCHO suite into service in support of an ambitious transformation agenda on which there is broad consensus across the country.

There will be understandably guarded views from those who have experienced the wearying effects of organizational transitions in the past. We are aware that change always comes at a cost, financial and human. Shifts in large government-funded organizations do not come often or easily, and when they do, they require strategic support and prudent use of all available assets. Nevertheless, our considered opinion is that change is needed. The investment made by the federal government in the PCHOs is too substantial to be content with a suite that is characterized by gaps relative to future health system priorities, overlaps, and limited capacity to accelerate change.

In this and the following chapter, we therefore present four options for changes to the PCHO suite. All four scenarios were designed to meet the criteria set out in Chapter 7.

We take it as a given that the process improvements described in previous chapters will be embedded in whatever future suite of PCHOs emerges from this exercise, and that where there is a substantive shift in the focus of an organization, the necessary shift in expertise on the board and team of that organization will also occur.

The vision we have in the end is one of high-impact health policy at the federal level: a clear division of labour between Health Canada and the suite of PCHOs with high policy capacity on both sides; alignment with the provinces and territories wherever possible; a clear mapping of roles and contributions within a coherent policy frame to accelerate innovation and improvements; and greater synergy among PCHOs.

Four scenarios

The first scenario we present here – *Achieving Efficiency* – would help drive improvements to existing health systems in Canada. It is a substantial re-imagining of the status quo but would not represent a complete retooling of the PCHOs. This scenario assumes that the suite already has the fundamental building blocks needed for the future, and that a more efficient use of the financial and human resources currently invested could deliver significant results in some critical areas. The transaction costs of change are likely lowest in this scenario, and the end result is likely expenditure-neutral.

The second, third, and fourth scenarios represent three different transformative options. Each one of these points to a different characterization of the most important barriers to the emergence of 21st century health systems in Canada – a distinct formulation of the fundamental problem the PCHOs need to help solve, and therefore a distinct set of structural solutions.

In scenario 2, *Unleashing Innovation*, we draw heavily from the work of the Advisory Panel on Healthcare Innovation that was referenced in our mandate. The emphasis of that work was on the spark, scale-up, and spread of innovation in Canada's health systems. The assumption in this scenario is that by removing barriers to innovation and its adoption across the country, Canada could move out of what the panel perceived as "stasis" in how health systems finance and deliver health services. This scenario values innovation as the primary engine of reform.

In scenario 3, *Fostering Engagement*, we respond to the many and loud voices we heard across the country calling for an emphasis on the value of engagement as the key to real and sustainable transformations, from the bottom-up. In this scenario, federally supported networks would encourage deep collaboration across the country between and among clinicians, researchers, policy makers, provincial and territorial leaders, and the public. This scenario assumes that what is missing in Canada is support for emerging organic partnerships that can coalesce, in a time-limited way, around solving problems together.

The final scenario, *Pursuing Equity*, was crafted around a bold national vision focused on equity, the value that underpins our health system architecture. This scenario is a response to calls for federal leadership on issues that are difficult for any individual province or territory to address alone. It assumes that what is needed to reduce health disparities in Canada is in part a strong federal interlocutor on issues that are global trends, such as the rise of expensive technology – including prescription drugs. It also addresses the need to enhance equity by bringing services like mental health and home care, as well as other important services, into the core of Canada's public health systems. This scenario would better align the PCHOs to support an end goal of ensuring equitable access to a modernized publicly funded basket of services for all Canadians, and opens the door to an examination of other forms of inequity, such as sex and gender inequity, that have been declared federal priorities.

The changes envisioned in scenarios 2 through 4 may require more financial and political investment than the first option. Each would require in-depth analysis should the Minister decide to pursue them – work we suggest could be undertaken within a strengthened Health Canada endowed with stronger policy capacity. The proposed changes are consistent with some of the overarching objectives that the federal Minister and her provincial and territorial counterparts have identified as common priorities – objectives such as ensuring that compilation and analysis of big data and the application of new technologies keep pace with the population's changing needs, improving access to affordable drugs, and investing in home and community care.

Across all four scenarios there are common themes. These include the need to support learning health systems with stronger and more focused approaches to data and information systems; the requirement for stronger and broader pharmaceutical policy capacity at the pan-Canadian level; and an acknowledgment of the emergence of health-care networks of various kinds across the country. These themes are represented in different ways in each of the four scenarios, but they cut across all options because they are key prerequisites for success. We describe the rationale for these themes below, before giving a detailed description of the four scenarios.

Each of our four scenarios privileges its own value: efficiency, innovation, engagement, and equity. These values are not mutually exclusive, and a decision to go down one path is not a rejection of the other values. The scenarios are signposts to alternative theories of change, not a set of implementation plans. The weight of one value over another is what drives the proposed changes and reconfigurations of PCHOs new and old in each scenario; decisions as to which to pursue will depend in part on our national aspirations for the future of health care in Canada as well as on the appetite for ambitious change.

To construct the scenarios, and others that we considered and discarded, we returned to the set of criteria articulated in Chapter 7. We used these criteria first to evaluate the PCHO suite as it stands. It became readily apparent that the status quo cannot deliver on what Canada's health systems need, as discussed in Chapter 8.

Any alternative we could recommend had to meet the following conditions: address the vulnerabilities of today; align with the federal government's role; and enable 21st century health systems. Each scenario as crafted and presented here – one centred on incremental improvement, three on transformation – meets that threshold.

Learning health systems

We heard from all corners of the country about the need to ensure greater synergies between CIHI and Infoway in terms of their complementary roles in supporting and enhancing data governance and use in Canada. Collectively, these two organizations have a pivotal role to play as the foundation for learning health systems. In all scenarios, we therefore look to further strengthen this capacity.

In addition, in all scenarios, we see the health information and data activities shifting away from reporting and research. Health systems in the world require open and much more timely access to data to support learning structures and functions, and we believe that this should be the goal in the medium term if not sooner.

There would still be a role for reporting to the public in some form in the PCHO suite. Reporting is needed to assist decision-makers, to inform Canadians of progress in the areas where the PCHOs are active, and to ensure that data are not suppressed. But currently, reporting is a core activity of too many organizations – and in the case of CIHI, many informants suggested that the reporting function has at times hindered CIHI's independence from governments and duplicated the efforts of the research community.

Instead, in all our scenarios we propose that CIHI needs to prioritize one of its most important and celebrated roles, which is the collection, scrubbing, linkage, and open provision of data. We contend in all scenarios that these activities should form the core of a much more focused and outcomes-driven agenda for CIHI or any agency that takes on its functions.

In addition, across all scenarios, we see a clear need to strengthen data sets in primary care and build links to data outside health systems and in the realm of the social determinants of health – both at the provincial-territorial level and with Statistics Canada. This would include building feedback loops to providers and patients to enable meaningful use and improved clinical outcomes. These are difficult and complex goals that would require new and expanded expertise and a strategic allocation of resources. Given the need for reporting to governments and the public on what the data mean for Canada's health systems, patients and providers, it is expected that in the future, PCHOs would do some reporting in their areas of expertise and knowledge. How much reporting is done, and who should do it, needs to be decided after a new architecture of PCHO has been decided. What is clear is that reporting should be done in a way that is meaningful and useful to system decision-makers, academics and experts, and to Canadians. It is likely that across all scenarios, the target of reporting for meaningful use should result in a smaller number of reports and more action on their findings.

Essential components of learning health systems include interoperable digital health systems and a single electronic health record for every patient that is portable across provinces and territories. While much infrastructure has been built in Canada, we heard repeatedly during our consultations that there is considerably more work that needs to be done to achieve this goal. Facilitating the development of platforms needed to achieve the goal of connected health systems, with patients having access to their own electronic health records and directly managing services (e.g. electronic booking and immunizations), is already on Infoway's current list of priorities. In some scenarios we recommend that this work be moved back to the centre of the organization's strategic plan, with success metrics that are meaningful to citizens and clinicians, and measurable by independent evaluations. In others, we recommend moving this function into new entities entirely.

We recognize that high-level support and commitment from federal, provincial and territorial governments would be needed for Infoway or any agency to ensure that every Canadian has an integrated personal electronic health record, accessible on their mobile device or other platforms. Connected systems are indispensable for connected care, but they are not sufficient. Given the convergence of interests, and all governments' commitments to these goals over the years, we feel confident making a recommendation for a focus on those connections, fully aware that success depends on collaboration of all partners.

Health technology assessments and pharmaceutical policy

Given the priority governments are placing on the pharmaceuticals agenda in Canada, in all scenarios, we see CADTH or an agency that would assume its functions as needing to focus on prescription drugs. It would be essential that, no matter its configuration, CADTH continue to more closely align and work with Health Canada, PMPRB, the pan-Canadian Pharmaceutical Alliance and others on the approval, assessment, pricing, and joint purchasing of drugs in Canada. In addition, we recommend that cancer drug evaluation, now done through the pan-Canadian Oncology Drug Review under CADTH, be integrated with the evaluation of all other drugs.

Given this focus, in all four scenarios, we see CADTH's role with respect to non-drug technology evaluation being shifted to that of coordinating a national health technology assessment (HTA) network. In this perspective, existing and possibly new provincial HTA bodies would conduct assessments within a common framework and in accordance with a common set of priorities, to avoid duplication and build overall capacity, with the active support of CADTH. Success would depend on agencies agreeing to work in a coordinated way as well as on the willingness of jurisdictions currently without HTA bodies to work with such a network, so that all provinces and territories benefit from its outputs. We believe there is an appetite for such collaboration.

In order to allow for this mandate, we considered other important functions that CADTH performs. In particular, we debated whether it should be in the knowledge translation field, and if so, to what extent. Appropriate prescribing and shared decision-making (SDM) in which patients are supported in making decisions about whether to take prescription medicines, and for what goals, are clearly critical goals for pharmaceutical policy in Canada; supports for both are under-developed in many jurisdictions across the country. On the one hand, for an organization at the national level to provide such on-the-ground assistance as academic detailing, SDM tools, public education, or clinician engagement across the country could be difficult. On the other hand, if that support were not integrated into decision-making processes related to funding and purchasing, there would be a risk of disconnection between policy and practice. Should CADTH proceed with this function, we concluded that it would be critical for it to work with organizations and experts that specialize in these areas rather than re-invent the wheel, particularly in jurisdictions that have developed local strengths and capacity in this area. This may involve purchasing services from such organizations – which may be preferable in some cases – or engaging in formal partnerships. In some other cases it may even involve exploration of structural integration.

A final area that remains an open question is the degree and type of involvement CADTH should have with the private sector. In our interviews with stakeholders, this question arose within these contexts: its funding model and the role pharmaceutical industry funding should and should not play; its engagement with patient representatives whose work is funded by industry; and its work with private insurers, including how closely they should work together and under what kinds of funding arrangements. It is clear to us that careful consideration of these activities is needed to ensure that the organization continues to be seen as acting squarely in pursuit of the public interest.

Building capacity through partnership

The notion of partnership is central to all of our scenarios. In each one, we assume that change would happen most easily in Canada's health systems when undertaken in partnership with the provinces and territories, patients and the public, providers, the research community, Indigenous communities, and other important health actors. In all scenarios, the foundation for such partnerships would be found in a signature organization. This approach is inspired by the achievements of three PCHOs whose models were based on the importance of collaboration: CCSA, CPAC, and MHCC. It would also leverage their resources.

The smallest of these three and the oldest, CCSA, often had to fight in isolation to make decision-makers attentive to the health dimensions of substance abuse and misuse. CPAC is a model for how "hybrid" policy organizations can develop the capacity to mobilize coalitions of heterogeneous participants (such as providers, patients, governments, industry, charities) in the pursuit of strategic goals. As regards the MHCC, very few in Canada would deny the role it played in making mental health valued and supported, against the indifference and prejudices of many. Yet the consensus coming out of our review is strong. The time has come for these three organizations to evolve into something different.

Recommending that CCSA, CPAC, and MHCC transfer their core functions to other agencies does not mean that we believe that the work of addressing substance use, cancer, or mental health is "done". Rather, we came to the conclusion that the critical work to address these issues would be better supported by new structures. The Government of Canada would better honour the importance of these issues by ensuring that the work has the highest possible impact for Canadians. In each case, a solution other than the one embodied in the status quo is needed. In all scenarios, it is envisioned that the financial resources to ensure a successful transition, as well as staff who have valuable expertise, would be transferred to these new networks.

The Canadian Centre on Substance Use and Addiction

We came to the difficult conclusion that CCSA as we know it has run its course, based on the evidence gathered during the review and consultations with its stakeholders. Health Canada needs to acquire some internal capacity in the area of substance abuse and addiction to be in a position to properly inform federal policy making. The functions performed by CCSA since its beginning would now be better served by growing an existing network of grassroots and research organizations, supported by CIHR, and embedded in a web of public institutions and non-profit organizations: the Canadian Research Initiative on Substance Misuse (CRISM). This network still needs to grow to fully achieve its pan-Canadian dimensions, but already it can demonstrate impact and success in ways that are unique to organizations with a solid and real presence at the coalface – a major challenge for a small organization such as CCSA, with its limited connections to the providers of social and health services. The critical work of addressing substance use and misuse requires connections to those delivering and receiving services on the ground and researching the issues with the highest degree of scientific rigour. CRISM is delivering the modern version of this work and its growth should be supported through the resources previously allocated to CCSA.

The Canadian Partnership Against Cancer

We heard strong praise about CPAC and its networked approach, which is very much in keeping with where we believe modern health policy needs to move. In developing and implementing the Canadian Strategy for Cancer Control, CPAC partnered collaboratively with a broad range of stakeholders to develop expertise spanning prevention and screening; diagnosis and clinical care; person-centred perspectives; system performance; knowledge management; and public engagement and outreach.

CPAC's Coalitions Linking Action and Science for Prevention (CLASP) initiative – the creation of a network to improve the health of communities and Canadians – has involved organizations from at least two provinces or territories, and brought together research, practice, and policy experts, to form coalitions that integrate cancer prevention with strategies to prevent other chronic diseases that share common risk factors.

Partly as a result of this work, there are now cancer agencies across Canada whose work has moved Canada leaps and bounds ahead of previous generations with respect to cancer care. That work will never be finished; nor can it be undone. At some point the collaborations need to be handed over to those delivering services to Canadians in order to reduce redundancy. Such a move would then allow the PCHO suite to begin to look at other critical disease priorities where such infrastructure does not exist and could help combat the siloing of cancer. Chronic diseases of all forms can be prevented through similar means to those of cancer; the principles of standardization can be applied to many other diseases; and the need to integrate care for Canadians with cancer with the care they need for many other issues is pressing.

CPAC's model should now be used to develop similar capacity across other diseases, populations, and policy challenges. As a result, in the scenarios we develop, we envision different uses of CPAC's expertise and resources. In order not to lose ground on cancer care, one option would be to transfer the core CPAC portfolio of strategic initiatives and projects to the Canadian Association of Provincial Cancer Agencies (CAPCA), which is well-placed to act decisively on the implementation of cancer strategies and best practices. Another would be to replicate the CPAC model in other areas, making use of its expertise in coalition building and network management. These possibilities are further elaborated in the scenarios that follow.

The Mental Health Commission of Canada

The MHCC has been particularly effective in developing strategies around mental health, along with initiatives and campaigns to increase awareness and reduce stigma. It has made great strides in delivering on its objectives and helped to bring mental health "out of the shadows at last." It has also created valuable contacts and built trust among its closest stakeholders.

The need to build greater capacity in Canada on mental health is still as pressing today as it was when the MHCC was established. What has changed, however, partly as a result of the advocacy work undertaken by the Commission, is the overarching policy goal. What Canada needs today is the complete and seamless integration of mental health into the continuum of public health care. What Canadians want is public coverage of proven mental health services and treatments, beyond physicians and hospitals. To be successful, those services must be integrated with primary care and supports for physical health, rather than isolated from them. We came to the conclusion that MHCC, in its present form and with its current orientation, is not the best instrument to achieve the objective of integrating mental health into Medicare.

It is possible that a renovated MHCC (or the organization that could succeed it) could work toward that integration. But this would require a different approach, aimed at engaging health leaders at provincial and territorial levels in joint decision-making over service funding and quality standards; a different "knowledge base" in support of evidence-informed advice and performance evaluation; and a different, more flexible, and less centralized structure. These requirements would clearly be better met by a pan-Canadian mental health partnership focused on policy implementation and process improvements. The scenarios we developed would all encourage such an evolution for MHCC, although with variations in scope and mandate, and we elaborate further on what that would look like in each scenario. It is because mental health is so critically important to Canadians – and their governments – that a new approach is now needed.

Conclusion

As compared to a stand-alone PCHO, the network approach was lauded by many informants as nimble and connected, leveraging existing capacity to achieve its goals. Because of their insistence on engagement and adaptation to local context and conditions, networks are particularly helpful when implementation is an issue, which makes them essential for spread and scale. They have less inertia than traditional organizations and tend to disappear naturally when their time is over. These core principles of networks appear in the signature PCHOs in each of the four scenarios, as a recognition of the critical importance of partnership.

Networks are an approach to building partnerships – but they are not a panacea. In some cases, decisive action is better achieved when capacity is concentrated and focus is unique and clear. Networks cannot, by their participatory and decentralized nature, stand up to some of the big global forces changing Canadian health care that we discuss in Chapter 6. In some instances, strong national agencies are the only way to bring economies of scale and of effort to meet the challenges of the day. Our scenarios for the future of the PCHO suite therefore combine these two options.

CHAPTER 10

Scenarios for Change

There is no single perfect structure for the PCHOs in Canada.

The best version of the PCHO suite will be one that meets our three sets of criteria and that is designed to support a national vision for the future of Canada's health systems. The federal government must clearly articulate its goals and the role it intends to play in that vision.

After a decade of hands-off federalism, a new approach is beginning to surface. This approach suggests a government that believes in efficient use of health dollars, as evidenced by its commitment to lowering drug prices and its participation in the pan-Canadian Pharmaceutical Alliance; support for health innovation, as articulated in its new commitments to funding science as well as innovation; a deep respect for the role of provinces and territories in health-care delivery, as is clear from the flexible approach to the Health Accord that engaged each jurisdiction in a bilateral process; and a commitment to health equity, which was evident in recent commitments to increase funding for mental health and home care – two areas where inequity runs deep across Canada – as well as its determination to move forward on closing health disparities for Indigenous Canadians.

How these values – efficiency, innovation, engagement, and equity – will be manifest in a federal vision for Canada's 21st health systems is the first question that must be answered, and it is not ours to answer. While our mandate offered a list of current vulnerabilities, it did not chart a course for the future. Because of this, we present four scenarios for the PCHO suite which correspond to different degrees of change and reflect different emphases on the values inherent in the government's approach to health-care policy thus far in its mandate.

Each of our four scenarios presents a recast suite of PCHOs that would have the capacity to address current system vulnerabilities, be consistent with the federal government's role in health policy, and fulfill the WHO Integrated, People-Centred Health System Framework for 21st century health systems as endorsed by the Government of Canada. The first scenario offers the potential for health system improvements without fundamental restructuring. Scenarios 2 through 4 reflect more profound transformation of the PCHO suite.

All four scenarios propose agencies focused on the infrastructure for learning health systems (namely data and information technology infrastructure); an agency focused on prescription drugs; and a specialized, or "signature" PCHO with targeted functions that embody the value that characterizes that scenario.

In the sections that follow, we describe the scenario and introduce the signature PCHO associated with it. At the end of this chapter, readers can find more detailed descriptions of the flow of each of the existing PCHOs under each scenario.

Scenario 1, Achieving Efficiency, maintains two separate agencies (CIHI and Infoway) to service learning health systems and proposes a quality agency that would make more efficient use of existing resources and infrastructure. Scenario 2, Unleashing Innovation, is built on the changes proposed by the Advisory Panel on Health Innovation in its thoughtful report, *Unleashing Innovation: Excellent Healthcare for Canada*. Scenario 3, Fostering Engagement, proposes a signature PCHO that embodies the value of engagement and emphasizes cross-jurisdictional networks as the basis for change. Scenario 4, Pursuing Equity, puts forward a vision for a signature PCHO focused on health equity, and in particular equitable coverage of health-care services from coast to coast to coast.

Our approach gives the Minister a set of options from which to choose, depending on the government's vision for the future of the country's health systems. We emphasize that the four scenarios are not watertight or mutually exclusive; it is possible, and may indeed be preferable, for the government to implement elements from two or more scenarios if such an approach would best serve its policy goals. What matters most is that combinations of the scenarios be designed with utter clarity on those goals. The gaps and overlaps that exist in the current PCHO suite will only be avoided if the purpose of a re-organization is clear.

Scenario 1: Achieving Efficiency

Remandate

CIHI: focus mandate on data governance

Infoway: focus mandate on interoperability initiatives

CADTH: focus on drugs and lead devices evaluation network

Recast

Health Quality Canada:

work collaboratively with PT health quality councils to support system-wide improvements centred in primary care

Funding from CFHI, CPSI, and subsequently CPAC

Redirect

MHCC: shift focus to building pan-Canadian mental health network

CPAC: shift responsibilities to new cancer network, led by CAPCA

CCSA: amplify CRISM and augment federal health portfolio policy capacity

Scenario 2. Unleashing Innovation

Remandate

CADTH: focus on drugs and lead devices evaluation network

Recast

Health Innovation Agency of Canada:

administer Innovation Fund; remove structural barriers to health system innovations, and support their scale and spread

Funding from CFHI, CPSI, and subsequently Infoway

Connected Data Canada:

expand and refocus on data governance and leading open data efforts

Funding and key functions from CIHI; Infoway’s data standards function would be integrated

Redirect

MHCC: shift focus to building pan-Canadian mental health network

CPAC: shift responsibilities to new cancer network, led by CAPCA

CCSA: amplify CRISM and augment federal health portfolio policy capacity

Infoway: transition funding and relevant functions to Innovation Agency after it is built

Scenario 3: Fostering Engagement

Recast

Connected Data Canada:

enable learning health systems in Canada

Funding and key functions from CIHI and Infoway

Canadian Drug Agency:

support development of national, coherent drug plan for publicly insured drugs

Functions and funding from CADTH (drugs), HPFB (drug regulatory approval), PMPRB

Canadian Networks for Health:

enable pan-Canadian learning health networks of care focused on support for specific evidence-based priorities of national importance (e.g., mental health), lead medical devices evaluation network

Functions and funding from CPSI, CFHI, CADTH (HTM and implementation science), MHCC, CCSA, and CPAC

Scenario 4: Pursuing Equity

Recast

Connected Data Canada:

enable learning health systems in Canada

Funding and key functions from CIHI and Infoway

Canadian Drug Agency:

support development of national, coherent drug plan for publicly insured drugs

Functions and funding from CADTH (drugs), HPFB (drug regulatory approval), PMPRB

Canadian Council for Health Equity:

make evidence-informed recommendations on issues relevant to achieving health equity, including modernizing the basket of insured services and applying legislative and regulatory levers to enhance equity

Funding from CPSI, CFHI, CADTH (HTM), MHCC, CCSA

Redirect

CPAC:
Shift responsibilities to new cancer network, led by CAPCA

Scenario 1: Achieving Efficiency

Starting with efficiency

Whenever governments intervene to allocate collective resources, efficiency is an important goal. The notion that it is desirable to maximize benefit and minimize redundancy is legitimate in all areas of public policy, including health-care policy. Prudent use of public resources in areas like health care – which are redistributive by nature – is an important goal.

Our first scenario places an emphasis on this concept, seeking to re-imagine the PCHO suite in a manner that minimizes inputs to produce the necessary outputs. In this scenario, we remandate, recast, and redirect the suite with a view to minimizing transition costs and disruption, and maximizing use of existing capacities. In essence, this scenario can be viewed as a ‘Status-Quo-Plus’ scenario, one that assumes that the fundamental functions that are needed in the PCHO suite already exist and what is required is some shuffling and streamlining rather than a fundamental transformation.

Scenario 1: Achieving Efficiency

Remandate	Recast	Redirect
CIHI: focus mandate on data governance	**Health Quality Canada:** work collaboratively with PT health quality councils to support system-wide improvements centred in primary care Funding from CFHI, CPSI, and subsequently CPAC	**MHCC:** shift focus to building pan-Canadian mental health network
Infoway: focus mandate on interoperability initiatives		**CPAC:** shift responsibilities to new cancer network, led by CAPCA
CADTH: focus on drugs and lead devices evaluation network		**CCSA:** amplify CRISM and augment federal health portfolio policy capacity

Rationale

Early on in our consultations, it became clear that the current PCHO suite was characterized in part by duplication and gaps. Where programs and initiatives are successful, existing financial and human resources are not sufficient to adapt these interventions to other contexts, much less to address different local needs and priorities.

In such cases, existing financial and human resources clearly could be put to better use. In focusing on efficiency, scenario 1 is about optimizing the use of resources to address those issues. Rather than a wholesale re-tooling, we focused on identifying those building blocks of the suite that could be put to better use without re-imagining them entirely.

The three organizations with crucial functions in the learning health systems of the future are streamlined in this scenario, with sharply re-focused mandates that will drive change in crucial areas and an unapologetic narrowing of their scopes. CIHI, Infoway, and CADTH emerge with a clarity of purpose that avoids mission creep and leads to fewer overlapping reports and metrics that are not always taken up in the field.

A newly cast national health quality agency, Health Quality Canada (HQC), would consolidate and secure the advancements in health quality that are already underway across the country. Canada is unique among other countries in that it has had a national institution focused on safety – one essential dimension of quality – but none on quality as a whole. Throughout our consultations, we heard about the need for a more coordinated focus on quality to support and build on the work of provincial quality councils and drive health improvements. Health Quality Canada would be a national platform, supported by the federal government, that allows quality organizations across the country to align their work more closely and tackle issues of common concern. This is essential when efficiency is the objective, and to enhance collaboration among existing provincial quality councils, reduce duplication, and strengthen the impact of every dollar spent.

The work of HQC would make reporting more efficient, increasing coordination and reducing duplication of reports across the country.

Provincial health quality councils (HQCs) are provincially funded arm's-length agencies with varying degrees of independence. They share the overall objective of improving the quality of health-care services in their respective jurisdictions, and they also all undertake some form of health-care quality measurement and monitoring. However, each agency has its own orientation and emphasis and there is wide variability in terms of resources and functions. Some provide a reporting and accountability function only, while others provide hands-on accountability for system change, and still others deliver their own quality improvement programs, such as developing and testing provincial guidelines. Currently, there is no central platform or mechanism for the quality councils to learn from each other, compare practices, pool resources, tackle shared challenges, and identify common approaches. There is also no agency to support quality capacity-building in those provinces and territories that do not have HQCs. In scenario 1 we tackle this issue head-on by proposing that Health Quality Canada be built using the resources previously allocated to CFHI, CPSI, and eventually the bulk of CPAC's resources.

QUALITY IN HEALTH CARE

The Institute of Medicine's definition identifies high-quality care as safe, effective, patient-centred, timely, efficient, and equitable. In Canada, five provincial health quality councils were created between 2002 and 2011: the British Columbia Patient Safety and Quality Council; Health Quality Council of Alberta; Saskatchewan Health Quality Council; Health Quality Ontario; and the New Brunswick Health Quality Council. These quality councils have all adopted the IOM definition of quality, which includes safety as an important dimension.

It is important to be clear that we are not suggesting that the existing work of CPSI and CFHI be simply folded under a new shared umbrella. While each of these organizations has done important work, the practice of trying to spread small individual projects across the country one organization at a time will not lead to large-scale cultural change in our lifetimes. We suggest instead that Health Quality Canada repurpose those resources to be much more focused on the identification of the large levers for quality and safety, such as regulation, accreditation, and the training of health-care providers.

Partnering with health quality councils opens up the possibility of identifying projects that can be implemented on the ground through local champions and leaders, rather than the CFHI model of spread that has focused more on working around, rather than through, existing provincial and territorial infrastructure.

The work of CPAC, MHCC, and CCSA shifts substantially in this scenario, as in all others. We envision the core functions of CPAC being transferred to the Canadian Association of Provincial Cancer Agencies to reduce duplication between cancer agencies in the country and transition ongoing projects closer to where cancer care is delivered. The functions of the MHCC are transitioned to a mental health network focused on the integration of mental health services in the continuum of care and designed to close gaps and build working partnerships between researchers and clinical communities rather than competing with their efforts. CCSA is sunset, with its support channeled to increase the national reach of the Canadian Research Institute for Substance Misuse (CRISM) and to augment substance misuse policy capacity inside the federal health portfolio.

The need for improvements to Indigenous health and wellness is clearly a priority, and serious gaps exist. All scenarios, this one included, envision the PCHO suite working towards these goals in close partnership with Indigenous peoples, as articulated in Chapter 3.

This first scenario would help drive improvements to existing health systems in Canada. It is a substantial re-imagining of the status quo but does not represent a total retooling of the PCHOs. It assumes that we have the fundamental building blocks needed for the future and that a more efficient use of the financial and human resources currently invested in the PCHO suite could deliver significant results in critical areas. The transaction costs of change are likely lowest in this scenario, and the end result is likely expenditure-neutral.

Scenario 1 – Signature PCHO: Health Quality Canada

To support quality improvement – including the important dimension of safety – across the country, Health Quality Canada (HQC) would work collaboratively with provincial health quality councils and fill jurisdictional gaps with respect to capacity for measurement, reporting, and capacity-building to support quality.

HQC would identify and promote levers for quality improvements at scale through partnerships. Examples of such partnerships that surfaced during our consultations included: The Royal College of Physicians and Surgeons of Canada; the College of Family Physicians of Canada; the Canadian Association of Schools of Nursing; and national and international accrediting bodies. Working in partnerships with these organizations will help to ensure that the dimensions of quality are embedded in common standards for training providers and accrediting organizations. Work with National Indigenous Organizations and the Department of Indigenous Services to drive quality improvement in health services delivery will be an important focus.

Initially, HQC would be supported by resources flowing from CFHI and CPSI. In addition, remaining resources from CPAC would flow into HQC after it has redirected its capacity to a new cancer network.

Assessment

The Achieving Efficiency scenario could address the major health system challenges of today and provide support to 21st century systems across Canada. However, even with the creation and growth of Health Quality Canada, the distance to 21st century learning health systems would be difficult to traverse. For instance, it is not clear what entity would focus on facilitating the timely application of evidence and research into practice and system design beyond pharmaceuticals and technology. Furthermore, without the bold moves to increase the size and capacity of the data governance and drug agencies outlined in other scenarios, there is a risk of perpetuating sub-scale organizations too small to get the job done. To address that, we recommend sharpened mandates and clarity of mission for each of the re-mandated organizations.

But perhaps the most important potential pitfall of this scenario is its proximity to the status quo. Ironically, because it so closely resembles the existing suite, scenario 1 may be the hardest to implement because of entrenched culture and patterns of thinking and working. Existing expertise within existing organizations can be the hardest to shift to a new way of working. This least disruptive scenario carries the greatest risk of holding fast to present-day gaps and duplication.

Conclusion

The changes proposed in this scenario are aimed at bringing greater efficiency to how the PCHOs function. The approach envisioned here is intended to build the foundations of learning health systems and begin to promote national networks, using only the building blocks of the existing suite, and seeking to build partnerships wherever possible. This scenario also articulates a focus on quality and leverages work already well underway within provincial and territorial health quality councils.

A scenario that would stretch every resource to its maximum while minimizing disruption is worthy of consideration and a great example of efficiency. But as the following scenarios highlight, that is not the only goal of health systems. The three remaining scenarios explore PCHO reform – transformation even – based on other values and objectives. It may be possible to use scenario 1 as a stepping stone to these more transformative scenarios, but if transformation is the goal of the government, a direct move to a much more different future could also be made quite quickly.

Scenario 2: Unleashing Innovation

Innovation first

The report of the Advisory Panel on Healthcare Innovation (APHI), chaired by Dr. David Naylor, was released in July 2015. Its wide-ranging recommendations, aimed at the federal government, included the creation of a new health innovation agency with substantial funding and a series of suggestions relating to the future of several PCHOs. The mandate of our review directly referenced the panel's report with the understanding that its model should be considered in our analysis.

As discussed in prior chapters of this report, the model put forward by the APHI is based on the idea that innovation is both the engine of health system transformation and the most significant proof that effective change is happening. There is broad consensus in Canada that the pace of evolution in health care is too slow and that approaches to health system reform and modernization fail to quicken that pace. The panel's report suggested that a focused commitment to health innovation, coupled with sufficient investments to support the spread and scale of innovation, would facilitate Canada's health systems' entry into the 21st century.

Our second scenario builds on the model put forward by the APHI, offering up recommendations for every PCHO in the suite.

Scenario 2. Unleashing Innovation

Remandate	Recast	Redirect
CADTH: focus on drugs and lead devices evaluation network	**Health Innovation Agency of Canada:** administer Innovation Fund; remove structural barriers to health system innovations, and support their scale and spread Funding from CFHI, CPSI, and subsequently Infoway	**MHCC:** shift focus to building pan-Canadian mental health network
		CPAC: shift responsibilities to new cancer network, led by CAPCA
	Connected Data Canada: expand and refocus on data governance and leading open data efforts Funding and key functions from CIHI; Infoway's data standards function would be integrated	**CCSA:** amplify CRISM and augment federal health portfolio policy capacity
		Infoway: transition funding and relevant functions to Innovation Agency after it is built

Rationale

The APHI report considered the PCHOs' contribution to supporting innovation and reform in Canadian health systems. It concluded that their collective effort, albeit commendable, was too small and importantly, too dispersed, to have a real and lasting impact. Consistent with our observations, the APHI concluded that variations in funding, mandates, and structures failed to foster coherence or achieve shared objectives. In fact, such variation was found to encourage each organization to keep to its respective sphere of activity and discourage the PCHOs from taking integrated, system-wide approaches to their work.

Yet innovation cannot yield useful outcomes without leaders "setting the vision and direction for change." The APHI report insisted that the lackluster performance of our health-care systems was in part the result of several shortcomings in the federal government's use of its financial and organizational levers. The recommended creation of a federal multi-year Healthcare Innovation Fund, with resources scaled to the needs of Canadian health-care systems and set at $1 billion per annum, was, in the panel's view, an essential first step. The second step was the establishment of a new agency, the Health Innovation Agency of Canada (HIAC), mandated to focus on innovation spread and scale and the capacity to support and monitor progress in health-care improvements, where and when needed.

The APHI report recommended that CFHI and CPSI be incorporated into HIAC, including staff and budgets. In the case of Canada Health Infoway, which was also expected to be merged into HIAC after a delay of two or three years, the report suggested the organization be instructed to first complete its mandate to implement interoperable electronic health records. The panel envisioned the future role of CADTH very much as we have across all our scenarios: with a renewed focus on the economic evaluation of prescription drugs, a supporting role for evidence-based national pharmaceutical policy, and a goal of creating greater transparency about prices and better information on effectiveness. The panel also supported an evolved role for CIHI, envisioning it leading efforts towards "open data" and the informed governance of a wider spectrum of health information, including private sector data.

INNOVATION

> "Innovation has become a buzzword with varied meanings. Throughout its consultations, for example, the Panel noted persistent confusion between research and innovation in the health sphere. As research becomes more applied, the findings may lend themselves to faster uptake and wider adoption. But […] even practical and definitive findings do not spark widespread innovation in the absence of winning conditions in the healthcare system. The frustrating reality is that many excellent ideas or inventions are never translated into saleable or scalable innovations."
>
> *Advisory Panel on Healthcare Innovation report, p. 5*

The work of CPAC, MHCC, and CCSA was not ignored by the panel, but the report had no recommendations about their future. We believe that the futures we proposed for these organizations in scenario 1 are compatible with the panel's prioritization of innovation. Thus, in the Unleashing Innovation scenario, we complete and extend the panel's recommendations with these same changes.

As also noted in scenario 1, we envision that CPAC's core functions be transferred to the Canadian Association of Provincial Cancer Agencies to reduce duplication between cancer agencies in the country and to transition ongoing projects closer to where cancer care is delivered. The functions of the MHCC are transitioned to a new network on mental health, focused on the integration of a broader range of mental health services into Medicare. CCSA is sunset, with support going to CRISM to increase its national reach and to increase the capacity on substance misuse inside the federal health portfolio.

This second scenario was conceived to "unleash innovation," to quote the title of the APHI report. The panel recommended the use of a wide range of well-tested policy instruments, including knowledge management, behavior incentives, and tax policy. In that context, the creation of HIAC and the future of the PCHOs were just one aspect of a broader and bolder vision, to which we cannot do justice here. The transaction costs of change in this scenario are important, as it would require significant alterations to the PCHO machinery and implies substantial federal government financial commitments. However, as rightly argued in the panel's report, this investment would still be a tiny fraction of the total amount of money invested each year in Canadian health care.

Introducing Connected Data Canada

Connected Data Canada (CDC) appears in scenarios 2, 3, and 4 as a single agency to support the development of learning health systems in Canada. Formed from the resources and infrastructure of both CIHI and Infoway, Connected Data Canada will be even more ambitious in scope than envisioned in scenario 2 and further integrate the infrastructure support for learning health systems.

As outlined in Chapter 9, the health information and data activities of CDC would shift away from reporting and research. CDC would focus instead on the collection, scrubbing, linkage, and in the future, open provision of data. Nevertheless, CDC would have an important knowledge synthesis role, seeking out and working with evidence at multiple levels, including health-care policy, delivery design, and at the level of clinical interaction. To augment that work, CDC would be encouraged to explore the potential to work with and contract services from organizations and movements such as Cochrane Canada, EvidenceNetwork.ca, and Choosing Wisely Canada to leverage available research and skills bases.

As a major goal, CDC would strengthen data sets in primary care and build links to data outside health systems and across the social determinants of health – both at the provincial-territorial level and with Statistics Canada.

So that the infrastructure exists to use data at the front line, CDC would make it a priority to finish Infoway's job of ensuring interoperable digital health systems and a single electronic health record for every patient.

CDC would incorporate public education and engagement into its work, explaining why and how evidence is used, and hearing and heeding public input on values-based and ethical issues.

Though the APHI report did not recommend major structural changes at CIHI, we introduce such changes via the CDC in scenario 2 for clear reasons. In forming the Health Innovation Agency of Canada and insisting its mandate be adjusted to the reality of digital health care and "big data", the panel's model planted the seed for the creation of a data and connectivity agency. Their report recommended, among other priorities, the development of "more accessible and user-friendly information" around patient-directed outcomes and other patient and public engagement and shared decision-making indicators. Given that the panel envisioned locating some of Infoway's efforts to support data standards and interoperability within CIHI, we re-named the agency and detail its mandate here. We propose that this new agency also be activated in scenarios 3 and 4.

Scenario 2 – Signature PCHO: Health Innovation Agency of Canada

HIAC would work with a range of stakeholders and governments to set the long-term vision for Canada's health-care systems and health-care innovation goals. It would provide oversight and expertise for the Healthcare Innovation Fund, "with the twin goals of removing structural barriers and supporting spread and scale-up, with the long-term aim of improving Canada's standing internationally on key metrics of health system performance."

The APHI report emphasized that given its status as an organization working at arm's-length from the federal government, HIAC would require an independent governance structure, with one or more advisory committees made up of stakeholders, government representatives, and other interested parties.

HIAC would be supported initially by resources flowing from CFHI and CPSI, including qualified staff. The panel envisioned that after it had completed its core mandate relating to electronic health records, Canada Health Infoway resources would flow into HIAC. New funding from the federal government, proportional to the scope of the mandate and the funding level of the Health Innovation Fund, was also an expectation.

Assessment

The model proposed in the APHI report is the result of a collective effort by some of the best specialists of innovation in the country and was informed by strong original evidence. The panel did not address the full suite of PCHOs, but we believe the additions we propose are in line with the panel's underlying positions. If this scenario were fully implemented, Canada's health systems would likely fare better in international comparisons for essential dimensions like digital health and integrated care, among others.

The financial cost associated with the APHI recommendations was the subject of much public discussion. It is clear this model requires a significant investment to support system improvement and transformation. Short of new federal funding, it would likely be difficult to get enthusiastic consent from the provinces and territories to embark on priorities determined at the national level. Other health system stakeholders might be similarly unmoved by a call for innovation without the resources to support it. Our understanding of the PCHOs of today with their current capabilities – financial and otherwise – is that they may not have the resources to underwrite this kind of system transformation.

Conclusion

The Unleashing Innovation scenario aims to create the conditions under which targeted innovation could be used in service of better health care. The model is based on a series of funding hypotheses that have proved difficult to meet, not because they do not make sense, but because of unfavourable political environments. As eloquently stated by the authors of the APHI report, "the clinical lion feeds first": the service delivery problems of today capture public attention; the innovation possibilities of tomorrow do not receive prime – or sometimes any – time. There are enough international examples of the benefits of a dedicated health innovation agency to convince anyone that HIAC would have had a favourable impact on Canada's health systems. Yet the sole combination of CPSI and CFHI, given their current size and capacity, will never satisfy the criteria we have set. A small "accelerator," as these organizations are known today, will continue to struggle with the diversity of contexts in Canadian health care. What to do first? Whose needs to prioritize? How to avoid amplifying inequities and differences? Explorations of other options that could elicit different answers and angles on these questions are important and follow in the ensuing scenarios.

Scenario 3: Fostering Engagement

Starting with engagement

Sometimes change in complex systems requires a pronounced push from the top down. But, at other times, a clear-eyed look at what is already emerging from the bottom up is the starting point. In scenario 3, we acknowledge the organic emergence of bottom-up collaborations across the country in the form of networks, and imagine a future in which such networks become the basis for change, with the proper support and encouragement from dedicated PCHOs.

Those working in the field do not sit passively by, waiting for federal engagement. Instead, groups of diverse backgrounds, keen to work together across jurisdictions and silos to solve health system problems, arise organically. In the last decade, some groups arose from the research community, others from health system planning tables, yet others from the health-care clinical coalface. In all cases, they have come to be characterized by partnerships across the spectrum of research, service delivery experts, and the public in models where engagement and collaboration are seen as core principles.

Networks are non-hierarchical structures based on a particular world view about how change can most effectively take place. They hinge on the critical principle of engagement: people coming together and setting aside turf to drive progress for a time-limited period, on a focused set of issues.

Scenario 3 is a response to the many and loud voices we heard across the country calling for an emphasis on that value of engagement as the key to real and sustainable transformations, from the bottom-up. While all four scenarios place an emphasis on partnerships, in this scenario, these partnerships take the specific form of federally supported networks of clinicians, researchers, policy makers, provincial and territorial leaders, and the public. This scenario assumes that what is missing in Canada to drive our systems into the 21st century is support for emerging this specific form of network that can coalesce around solving problems together.

Scenario 3: Fostering Engagement

Recast

Connected Data Canada:

enable learning health systems in Canada

Funding and key functions from CIHI and Infoway

Canadian Drug Agency:

support development of national, coherent drug plan for publicly insured drugs

Functions and funding from CADTH (drugs), HPFB (drug regulatory approval), PMPRB

Canadian Networks for Health:

enable pan-Canadian learning health networks of care focused on support for specific evidence-based priorities of national importance (e.g., mental health), lead medical devices evaluation network

Functions and funding from CPSI, CFHI, CADTH (HTM and implementation science), MHCC, CCSA, and CPAC

Rationale

This scenario presents three new entities to meet today's array of health challenges, enshrine the elements necessary for 21st century health systems, and harmonize with the federal government's role in health policy. In addition to a strong data agency to support learning health systems and a strong drug agency to support a national program for prescription drugs, the PCHOs in this option would be completely reconfigured to support a signature PCHO that focuses on engagement. Canadian Networks for Health (CNH) would provide support for a set of deeply collaborative networks in which the federal government plays a supporting, rather than a starring, role.

Fostering Engagement calls for strong relationships of trust among players who would be brought together as equals, behave and work together as equals. Those players include provincial and territorial governments, Indigenous NIOs, and a federal government, who in this scenario is not the first among equals, but rather an enabling and participating partner and a provider of health services.

The emphasis on engagement in this scenario aligns particularly well with the catalyst and capacity builder while embodying the midwife dimension of the federal role. Canadian Networks for Health aims to alter the health system paradigm in Canada through a collaborative approach on national priorities based on engagement with a broad range of partners, including governments, researchers, patients, providers, and others.

The networks supported by CNH would address key national priorities that can advance integrated, patient-centred, universal and equitable health systems of the kind we discuss in Chapter 6. The multi-disciplinary focus of these networks should easily facilitate the incorporation of a wide range of stakeholders and perspectives from all disciplines relevant to health, and especially the social determinants of health.

Of course, not all networks that have arisen in Canada over the last decade have been successful. Participation without engagement is not uncommon; mission drift and mission hijacking can occur; and strong leadership with hands on the levers of power does not always emerge from such models. There are limits to what networks can achieve – yet the draw of an engagement-driven model, especially in a federated system like Canada's, is powerful.

As in scenarios 2 and 4, we offer a recommendation for a strong data agency (Connected Data Canada) that extends its work to evidence synthesis and a small amount of meaningful reporting for the purposes of driving system change. In addition, we introduce a strong drug agency (the Canadian Drug Agency) which is also present in scenario 4 and builds on CADTH's strengthened focus on prescription drugs as described in scenario 2. These two agencies form the backbone of all three transformational scenarios because they represent the necessary infrastructure for a set of functions that cannot be performed by individual provinces and territories.

Introducing the Canadian Drug Agency

The CDA appears in both scenarios 3 and 4. It would combine the pharmaceutical functions of CADTH, the Health Products and Food Branch of Health Canada (HPFB), and the Patented Medicine Prices Review Board (PMPRB). It is intended to work as closely as possible with the pan-Canadian Pharmaceutical Alliance (pCPA).

The CDA would be responsible for creating a coherent, comprehensive, and integrated pharmaceutical strategy that could support a robust pharmaceuticals agenda and the introduction of a national program for prescription drugs. This would require the new agency to be assigned the authority and capacity for a large spectrum of roles currently performed by a set of organizations with distinct legal status and disjointed functional responsibilities: drug safety approval and post-market monitoring; cost-effectiveness and quality evaluation; public and provider education and engagement.

One of the first deliverables for the new agency would be the development and management of a national formulary for drugs, the forerunner to a pan-Canadian common formulary. This formulary would not only be based on clinical and cost-effectiveness assessments of new drugs, but also integrate results from regular reviews of drugs that may no longer be of value.

The new agency would oversee patented drug prices to ensure the sustainability of the national program. This role would be complementary to the support provided to governments engaged in price negotiations with pharmaceutical companies. As a first step, CDA would provide extensive support and guidance to the pCPA to meet its goal of lower drug prices. Over time, and assuming the support of the provinces and territories for this direction, CDA could put its integrated functions to use and take on the responsibilities of price negotiations and purchasing at a pan-Canadian level.

In an emerging role, CDA could offer support for appropriate prescribing and public education by developing evidence-informed guidelines. Beyond the safe use of pharmaceuticals, demand is rising for tools that help patients and providers to engage together in shared decision-making about treatments.

Scenario 3 – Signature PCHO: Canadian Networks for Health

In keeping with an emphasis on networks, CNH would replace single disease or issue-specific PCHOs with a much more fluid, bottom-up model aimed at supporting networks that draw on the concerted efforts of individuals and organizations from different fields and regions.

This model creates a national community of networks to share their successes and best practices, issue reports on performance, and coordinate pan-Canadian work that spans health and social sectors. Their bottom-up approach could be designed to align with patient and population needs, and the multi-disciplinary nature of the networks would encourage the incorporation of social determinants of health.

CNH would ensure that all networks make patient and public engagement as well as engagement with NIOs and Indigenous communities a cornerstone of the networks' decision-making and priority-setting structure.

CNH would fulfill an important function by providing clarity about when networks should sunset. Transparent articulation of these timelines would negate the need for groups to focus time and attention on competing for renewed funding. Once a network's work is complete, funding would move to another network targeting unmet needs or gaps in identified priority areas. If a group saw merit in continuing its work once funding expires, its members might decide to seek other revenue sources or operate on a smaller scale.

CPH would be created through the budgets and core knowledge of CPAC, CFHI, CPSI, MHCC, and CCSA. The network approach is, in our view, a natural next step to continue progress on mental health and to advance strategies to address problematic substance misuse across Canada. If a mental health network were to be established, a swift decision about the relationship of CPH to CRISM, the addiction and substance misuse network, would be advised, along with discussions about how a potential mental health network could best interface with CRISM. In this scenario, that decision would be determined through CNH processes.

Recognizing the important work done by Cochrane Canada, EvidenceNetwork.ca, Choosing Wisely Canada and others have done with respect to engagement and evidence-gathering, CNH should explore opportunities to work with and contract services from these organizations. In addition, given the influence that the Strategy for Patient-Oriented Research (SPOR) Networks have had as early leaders in this area, the federal government could consider whether SPOR should be more closely tied to these networks. Early and in-depth talks with CIHR about how and where SPOR fits into the health research ecosystem would be important.

Assessment

While networks could be nimbler and better-connected to the clinical coalface, it would be important to guard against disease-and condition-specific siloed thinking. This could be achieved at the outset with clear expectations about the need for integrative approaches. During discussions with key informants, we explored strategies to guard against fragmentation. They included: funding primary care networks; including primary care voices in each network; ensuring that co-chairs or co-leads of every network support a social determinants perspective; requiring that networks regularly engage with each other, and with primary and social care experts; and bringing a public health approach within all networks. Nevertheless, the risk of increasing fragmentation with a network-based model remains.

Conclusion

This scenario has the potential to make significant advances in addressing current vulnerabilities. The focus on engagement goes beyond governments and health-care providers to include patient and public participation in health. This collaborative approach can help spread and scale innovation across health systems, including improvements to primary care. CDC would be well-positioned to support effective learning health systems to enable evidence-informed change. The CNH would be responsible for identifying and acting on issues of national importance, which would include those identified here.

This scenario is the model that invests most heavily in networks, but partnerships can take many other forms. In the final scenario we explore a different kind of partnership – one that has the potential to be extremely powerful in a different way.

Scenario 4: Pursuing Equity

Equity first

In the last two decades, most advanced health systems have resolved to lessen health inequities. From the National Health Service (NHS) in England to Accountable Care Organizations in the United States, there is a growing focus on reducing the discrepancies in health outcomes caused by socio-economic differences. In 2008, the WHO Commission on Social Determinants of Health, chaired by Sir Michael Marmot, insisted on the critical role of governments and strong public services in reducing or eliminating "differential access to and utilization of health care, with consequences for the inequitable promotion of health and well-being, disease prevention, and illness recovery and survival." Scenario 4 is reflective of this worldview, in which equity is the guiding principle of social and health policy.

If equity is a focal goal of health care, the federal government has an important role to play in reaching it. This is because the federal government is ultimately responsible for defining what citizenship entails for all Canadians: their rights, their freedoms, their responsibilities. The Canadian Charter of Rights and Freedoms affirms these rights at the individual level and is seen by a majority of Canadians as an essential reflection of the dimensions of citizenship. Yet a majority of Canadians also believe that access to health care, based on one's health needs and health status, and not on one's ability to pay, is a fundamental aspect of Canadian citizenship, if not of Canadian identity. This particular perspective is in large measure the result of a series of decisive actions taken by federal governments that did not shy away from setting out the conditions under which public health care must operate, from coast to coast to coast.

EQUITY IN THE CONTEXT OF HUMAN RIGHTS

> "The NHS provides a comprehensive service, available to all irrespective of gender, race, disability, age, sexual orientation, religion, belief, gender reassignment, pregnancy and maternity or marital or civil partnership status. The service is designed to improve, prevent, diagnose and treat both physical and mental health problems with equal regard. It has a duty to each and every individual that it serves and must respect their human rights.
>
> At the same time, it has a wider social duty to promote equality through the services it provides and to pay particular attention to groups or sections of society where improvements in health and life expectancy are not keeping pace with the rest of the population."
>
> *NHS (2015).* The NHS Constitution, *principle 1, p. 3.*

Furthermore, the current government's pan-governmental focus on two important expressions of the value of equity – gender equity and reconciliation with Indigenous peoples – have put this concept front and center in the public discourse. Our deliberations have led us to the conclusion that if it wishes to do so, the federal government can pursue health equity for all Canadians in a much more deliberate fashion, and PCHOs can be tools in that work.

If equity is the central goal of a re-tooled suite of PCHOs, one of the ways to expedite the transition into 21st century Canadian health systems is to equip Canada with strong national organizations in support of three pivotal system-level functions. As in scenarios 2 and 3, this scenario includes strong agencies in the areas of data and connectivity, as well as prescription drugs. Equitable access to the benefits of data and technology is critical, lest investments unintentionally broaden, rather than lessen, gaps for marginalized groups. And any national pharmaceutical policy agenda will need to have as a central goal equitable access to medically necessary prescription drugs.

The signature PCHO in a scenario focused on equity puts its emphasis squarely on partnerships with the provinces and territories to reduce disparities in access to medically necessary health services across Canada. This includes a mechanism for the ongoing determination of appropriate coverage – defining the basket of medically necessary services to which Canadians can and should expect to have access. The creation of such an agency will require a substantial retooling of the current PCHO suite.

Scenario 4: Pursuing Equity

Recast

Connected Data Canada:
enable learning health systems in Canada
Funding and key functions from CIHI and Infoway

Canadian Drug Agency:
support development of national, coherent drug plan for publicly insured drugs
Functions and funding from CADTH (drugs), HPFB (drug regulatory approval), PMPRB

Canadian Council for Health Equity:
make evidence-informed recommendations on issues relevant to achieving health equity, including modernizing the basket of insured services and applying legislative and regulatory levers to enhance equity
Funding from CPSI, CFHI, CADTH (HTM), MHCC, CCSA

Redirect

CPAC:
Shift responsibilities to new cancer network, led by CAPCA

Rationale

In scenario 4, we have identified three areas where a national perspective and significant federal leadership can make a critical difference in achieving equity: data governance and IT infrastructure; prescription drugs; and guidance on actions to reduce health disparities, primarily by reducing coverage inconsistencies across provincial and territorial health systems when they are deemed unacceptable.

In each of these three areas, the issues are similar. First, in the health sector as in many others, global economic and technological forces decide the pace and direction of change with respect to data, technology, and the development of new products including pharmaceuticals. These forces are driven by motives that can diverge widely from local interests and priorities. A strong national agency tasked with addressing such forces is best placed to do so, rather than expecting every jurisdiction to "go it alone". Second, issues such as operational standards or coverage decisions now require advanced analytical capacity, which is in many ways out-of-reach for all jurisdictions but the largest. Finally, the dynamics of the three areas emphasized in this scenario are such that important discrepancies between provinces and territories, and therefore real inequities, are at risk of spiraling out of control. It is not unreasonable to think that the care experience of a Canadian could vary not because of cultural differences or locally expressed preferences, but because we have failed collectively to ensure that effective and high-value services are offered consistently across the country.

The need for a fully reengineered agency supporting a national pharmaceutical policy and providing the evidence necessary to the operation of a national prescription drug program has been established earlier in this report, and indeed a strong drug agency extends across all our scenarios. As we have noted, it is essential for the federal government to finally fully integrate the fragmented system of pharmaceutical oversight, from approval to cost-effectiveness evaluation and from pricing to real-life usage monitoring. As in scenario 2, we recommend here that the prescription-drug related functions of CADTH be strengthened, yet like scenario 3, we also envision a seamless integration with HPFB and PMPRB within a national drug agency. This re-engineering is an efficient and effective way to achieve equity of access to prescription drugs for all Canadians who need them, as well as equitable protection from unnecessarily high prices and inappropriate prescribing.

Data and IT are the second equity frontier. The relative absence of standards is already felt by Canadians when their care is provided in different organizations within the same system and their records and information do not follow them. It is even more stark when people move between systems and especially between jurisdictions. Furthermore, without guidelines or even guidance, the adoption of technologies making use of biased algorithms and misrepresentative systems can easily amplify the vulnerabilities of poorer populations and minorities.

But the final area of inequity in which a PCHO suite could support progress is perhaps the most important. As was the case in the 1960s and again in the early 1980s, one of the most significant contributions Ottawa can make at this moment is to help the provinces and territories, and beyond that, Canadians, to determine thoughtfully what needs to be covered by Medicare. The definition of medically necessary services, enshrined in the health legislation of every jurisdiction in the country, is not only limited by historical accident, but also because of a general resistance to basing decisions on evidence rather than tradition. Even in the areas of drugs and health technologies, where evidence-informed coverage is more common than in other areas, variation and delays remain the norm rather than the exception.

The drive to open the basket of publicly insured services beyond hospital and physician services, notably in sectors like mental health and home care, is shared across all jurisdictions. Unfortunately, that shift is easier said than done. Prescription drugs are another case in point: the quest for a national formulary has been underway for years, with progress steady but at best plodding. One can hardly expect a faster pace of change when provinces and territories consider how to incorporate evidence-based therapeutic approaches to anxiety or depression into public baskets. And what about addressing obsolete or wasteful practices? How can provinces and territories resist the pressure to publicly pay for costly yet unproven treatments? How should policy makers integrate the viewpoints and preferences of patients and communities in choices and tradeoffs that will affect their health and well-being?

In addition to considering these questions together under the auspices of a partnership that should include broad participation of the full range of stakeholders – including most obviously the provinces and territories – there are many other ways equity could be advanced through the work of a PCHO. This includes consideration of the best evidence-based levers to reduce health service inequities along other important determinants of health. An evidence synthesis function as well as a mechanism to share innovations focused on reducing disparities are examples of such work. The notion that provinces, territories and other groups could learn from the evidence and from each other about best practices in legislative, regulatory, health system financing, and service delivery models with equity as the central goal seems so obvious it is hard to believe that such a forum does not already exist.

On their own, few jurisdictions are equipped to address all these questions. The answers will require expertise drawn from many scientific fields, as well as a solid investment in the processes that help "translate" the language of science and evaluation into the language of decisions and public policy. Ultimately, modernization of public baskets calls for an organization that can speak with authority and confidence, especially when the recommendations ask for a prudent approach to treatments that might supplant, or compete with, those that reside in the traditional Medicare basket.

In this scenario, we envisage a new entity – the Canadian Council for Health Equity (CCHE) – to play that role. A similar organization in England, the National Institute for Health and Care Excellence (NICE), has largely proven its worth since its establishment in 1999. What we suggest here is adapted to the specificities of Canadian federalism and to the very particular way the basket of insured services is determined in our country.

Scenario 4 – Signature PCHO: Canadian Council for Health Equity

The purpose of CCHE is to be the focal point for consensus discussion on issues relevant to achieving health equity at the national level. Evidence synthesis and public dialogue leading to recommendations as to the composition of the basket of insured services under Medicare will be the core of the work of such a Council. This involves an examination of the criteria used in the definition of medical necessity, based on the best available evidence, and integrating the values and preferences of patients, families, and the public.

At the outset, CCHE would be expected to develop a methodology, based on the best international practices, to review and update the list of services covered by Medicare. It would seek to create partnerships with organizations with well-established expertise in relevant areas of practice, including EvidenceNetwork.ca, Choosing Wisely Canada, and Cochrane Canada. It would also be advisable to develop an agreement with Accreditation Canada-HSO and other Canadian accrediting bodies, since it would be appropriate for the work of CCHE and accrediting organizations to be well aligned.

Aside from differences in the basket of services, there are other important drivers of inequitable access to health care in Canada. An additional line of work for the council could include examination, knowledge synthesis, and recommendations relating to legislative and regulatory levers to enhance equity. For example, harmonized legislation in the areas of health-care quality, guidance on access to care in rural communities, and the development and dissemination of shared decision-making tools to help patients and families take charge of their health and social services are important areas where pan-Canadian cooperation on health equity could make a big difference.

With the CDA being responsible for the development of the national prescription drug formulary, we recommend that CCHE focus first on mental health care services and treatments and on home care, two areas which must be integrated rapidly into the Medicare basket in fiscally sustainable and evidence-informed ways. This is all the more important because our recommendation to bring the resources from the MHCC into this work should serve to accelerate the agenda for equitable access to mental health services across the country.

This agency would be founded from resources currently allocated to CFHI, CPSI, the Health Technology programs of CADTH, the MHCC, and CCSA.

Assessment

Health care is among the few public goods perceived by Canadians to be intrinsically associated with their collective understanding of notions such as citizenship, human rights, and social justice. The federal government has a particular duty in this regard, given its role in defining and preserving the social dimensions of citizenship, including our commitment to inclusiveness and equity. Other than the fact this is a natural function for a national government, Ottawa has the fiscal capacity and the administrative resources to handle the costly and complex programs that embody these values.

The current fragmentation and dispersion of efforts among and between provinces and territories have slowed and, in some cases, stalled the adaptation of Canadian health systems to new socio-economic, demographic, and scientific realities. This situation risks exacerbating inequities across the country. Scenario 4 takes seriously the WHO Commission on Social Determinants of Health's injunction that social progress requires a strong public service, where "strong" doesn't mean autocratic but rather highly capable. The three new national agencies proposed here would exist to meet real and pressing needs that have been widely expressed across the country and at all levels, from people's homes and patients' bedsides, to academic, provider, and policy circles: the need for usable information; the need for a robust basket of public services; the need for sustainable approaches to expensive options.

Conclusion

Scenario 4 requires the federal government to live up to its pledge of reengagement, after years of retrenchment from active participation in health policy. It takes a clean-slate approach to the machinery of the PCHOs, suggesting that Ottawa concentrate its investments in arm's-length bodies serving three critical functions. We heard about the need for these capacities time and again during our consultations; the consensus about the challenges faced by Canadian health systems rallies people from patient organizations to providers and from industry to research institutions. Governments are on board as to what the outcomes should be, but interjurisdictional issues too often stand in the way of collaboration. With a view to the future and a common goal in sight, this is the moment for leadership.

PCHO	Scenario 1 – Efficiency	Scenario 2 – Innovation	Scenario 3 – Engagement	Scenario 4 – Equity
Canadian Agency for Drugs and Technologies in Health (CADTH)	• Focus on drug assessments, working with Health Canada, PMPRB, the pan-Canadian Pharmaceutical Alliance, and other important actors on the approval, assessment, pricing and joint purchasing of drugs in Canada. • Lead and coordinate a new pan-Canadian Health Technology Assessment network that serves all jurisdictions, working collaboratively with INESSS in Quebec, IHE in Alberta, the Health Technology Review in BC, and HQO in Ontario.	Same as scenario 1	Flows into the Canadian Drug Agency	Flows into the Canadian Drug Agency
Canadian Institute for Health Information (CIHI)	• Focus attention on the collection, scrubbing, linkage, and, as much as possible, open provision of data. • Strengthen data sets in primary care; build linkages to data sets outside health systems and across the social determinants of health – both at the provincial-territorial level and with Statistics Canada. • Shift focus away from research and reporting functions – some reporting is necessary but this should be scoped down and in many scenarios that follow the reporting function is handed to other PCHOs	Flows into Connected Data Canada	Flows into Connected Data Canada	Flows into Connected Data Canada

PCHO	Scenario 1 – Efficiency	Scenario 2 – Innovation	Scenario 3 – Engagement	Scenario 4 – Equity
Canadian Foundation for Healthcare Improvement (CFHI)	Flows into Health Quality Canada: • CFHI has shown that it is possible to build capacity in Canada for quality improvement at the local level, and has begun to unlock the challenge of spread and scale across jurisdictions. • As part of HQC, the focus needs to shift from training one team at a time on one project at a time to the identification of bigger levers of spread and scale, such as policy, regulation, and accreditation and standards for training health-care providers. • By folding the budget and focus of CFHI into a larger quality-focused organization intended to partner with provincial and territorial health quality councils focused on local priorities, this work can have much greater impact.	Flows into Health Innovation Agency of Canada: • CFHI has shown that it is possible to build capacity in Canaada for quality improvement at the local level, and has begun to unlock the challenge of spread and scale across jurisdictions. • As part of HIAC, the focus needs to shift from training one team at a time on one project at a time to the identification of bigger levers of spread and scale, such as policy, regulation, and accreditation and standards for training health-care providers. • By folding the budget and focus of CFHI into a larger innovation-focused organization, this work can have much greater impact.	Resources flow into the core of Canadian Networks for Health	Resources flow into the Canadian Council for Health Equity
Canada Health Infoway	• In partnership with CIHI, focus on data standards development. • Focus on interoperability initiatives across all provinces and territories to support the principle of "one patient, one record." • Focus on patient access to electronic health records, especially on mobile devices.	• Flows into Health Innovation Agency of Canada after completing its mandate regarding the implementation of interoperable electronic health records. • Functions in support of data standards and interoperability to be transferred to Connected Data Canada.	Flows into Connected Data Canada	Flows into Connected Data Canada

PCHO	Scenario 1 – Efficiency	Scenario 2 – Innovation	Scenario 3 – Engagement	Scenario 4 – Equity
Canadian Patient Safety Institute (CPSI)	Flows into Health Quality Canada: • Bring the important work of patient safety into a larger organization focused on all dimensions of quality, including safety, in keeping with the international trend towards acknowledging safety as an important dimension of quality and considering the difficulties inherent in achieving impact in a small organization. • The work of Health Quality Canada to include ongoing support for the patient and family engagement work undertaken by CPSI; lessons at the policy and regulatory level form the core of this new agency.	Functions and funding to be transferred to new Health Innovation Agency of Canada: • The Advisory Panel on Healthcare Innovation stated it was time to bring the important work of patient safety into a larger organization focused on all dimensions of quality, including safety, in keeping with the international trend acknowledging safety as an important dimension of quality and given the difficulties inherent in achieving impact in a small organization.	Functions and funding transferred to new Canadian Networks for Health	Functions and funding transferred to new Canadian Council for Health Equity
Canadian Partnership Against Cancer (CPAC)	• Having ably shepherded the evolution of a mature cancer network across the country, CPAC would transfer its expertise to a new Cancer Learning Network, to be led by the national association of cancer agencies, the Canadian Association of Provincial Cancer Agencies (CAPCA). • After it has redirected its core capacity and critical projects into a new cancer network, the bulk of resources from CPAC would flow into Health Quality Canada.	• Having ably shepherded the evolution of a mature cancer network across the country, CPAC would transfer its expertise and core projects to a new Cancer Learning Network, to be led by the national association of cancer agencies, the Canadian Association of Provincial Cancer Agencies (CAPCA).	Flows into a network under Canadian Networks for Health, with much of its core resource forming the central core of CPH that will support a variety of networks across the country.	• Having ably shepherded the evolution of a mature cancer network across the country, CPAC would transfer its expertise to a new Cancer Learning Network, to be led by the national association of cancer agencies, the Canadian Association of Provincial Cancer Agencies (CAPCA). • After it has redirected its core capacity and critical projects into a new cancer network, the bulk of resources from CPAC would flow into the Canadian Council for Health Equity.

PCHO	Scenario 1 – Efficiency	Scenario 2 – Innovation	Scenario 3 – Engagement	Scenario 4 – Equity
Mental Health Commission of Canada (MHCC)	• Shift responsibilities to establishing a national mental health network, learning from the successes of CRISM and others. Linkages would also be established with existing mental health networks, in particular the ACCESS Open Minds network for youth and adolescent mental health, funded jointly by SPOR and the Graham Boeckh Foundation. • Patient and public engagement would be a cornerstone of the network's decision-making and priority-setting structure. • The network would initially be funded from the MHCC's budget, with a longer-term plan for sunsetting and alternative funding sources if network members determine the work should be sustained.	Same as scenario 1	Resources flow into a network within Canadian Networks for Health	Resources flow into the Canadian Council for Health Equity
Canadian Centre on Substance Use and Addiction (CCSA)	• Sunset CCSA in its current form. • Strengthen the federal government's policy and analysis capacities around substance use and addictions in both Health Canada and the Public Health Agency of Canada to ensure they can contribute to the work of CRISM. • Funding should be used to support expansion of CRISM to ensure truly pan-Canadian reach.	Same as scenario 1	Resources flow into Canadian Networks for Health	Resources flow into the Canadian Council for Health Equity

Conclusion

How should the implementation of these scenarios be considered? We are agnostic as to whether or not one should be chosen and taken up in its entirety; the Minister could choose to mix and match features of each scenario and view the proposed changes as à la carte-style offerings. The organizational names, timelines, and implementation details are of course also up to the government.

What we wholeheartedly hope for, however, is that decisions will be made with both a clear vision for 21st century health systems in mind and a full understanding of what will be gained. We understand that selections are not made in a vacuum; they are influenced by upstream decisions and policy orientation as well as by externalities such as the state of the economy and the amount of room on the reform plate.

We acknowledge that, no matter the change, a reconfiguration of the PCHOs will cause disruption and that there are real transaction costs as well as opportunity costs to change. Nevertheless, some disruption is needed to equip the PCHO suite to meet the needs of the public in its many faces – patients, caregivers, taxpayers, citizens, residents – as well as the needs of providers, researchers, decision-makers, industry, and the long list of health system stakeholders. We encourage bold action because the importance of long-term effectiveness outweighs any short-term pain of change.

In the chapter that follows, we offer concluding thoughts on the opportunities embedded in this review.

Conclusion

This review has the potential to lead to strategic redeployment of a repurposed suite of PCHOs as important instruments to achieve shared federal, provincial and territorial policy objectives. It is significant that its predominant drivers were neither cost containment nor value-for-money, though prudent use of the more than $300 million spent annually on PCHOs is not beside the point.

For a decade, the federal government chose to limit its function largely to funding provincial and territorial transfers, and backed away from engaging in matters of health policy. PCHOs were left to determine their own priorities, which they did largely in isolation from each other and from a federal government that provided little strategic policy direction. Yet health belongs to Canadians as a whole. It is, and has always been, an issue of national concern.

> "PCHOs have been easy to ignore because they don't fit into an accountability cascade."
>
> *– Key Informant*

Of course, no health system reform will happen without the interest and involvement of the provinces and territories. And, as we know from previous periods of federal, provincial and territorial impasses around financing and jurisdictional issues, health system reform also requires rapprochement and partnerships.

We noted an overwhelming consensus around the vision for systems of the future from health-care stakeholders across the country, across fields, institutions, disciplines, and community groups. This is the spark that should reignite discussions about new ways to structure the PCHOs that support health system change. With the support of a federal government that has expressed – and shown – genuine interest in health policy and system reform, we hope that our report will be a useful contribution to that discussion.

We are not naïve. This review was commissioned in part because the Minister – and stakeholders across the country – could see that the status quo is insufficient. PCHOs in their current forms have been struggling to meet the important challenges of today. As we look at the criteria set out in this report, it is clear they will not be able to adapt sufficiently as a suite to meet the needs of the future unless they are given the structures, mandates, and resources to do so. If the PCHO suite is to become a more effective lever for a re-engaged federal government, more than mere tinkering or housekeeping changes are required. Given the ever-changing nature of health-care leadership at the political and public service levels, and with the prospect of significant health system innovations – for instance, the introduction of a national pharmaceutical program – the potential for impact of a refashioned suite is substantial and exciting.

The future PCHOs will be successful insomuch as they can achieve two goals simultaneously: serve as effective instruments of a shared national vision, pushing meaningful change forward with federal support; and support health system transformation across the country by partnering meaningfully with the provinces and territories as well as the broad array of other groups in the health sector. We recognize that this balance is difficult to achieve.

Implementation of changes to the suite will require thoughtful consideration, care and deliberation; consultation with provinces and territories, Indigenous peoples of Canada and other groups; thoughtful links to reforms underway in the research community as well as other parts of the health portfolio. The necessary process will be complex, but the machinery exists to make changes and the rewards have the potential to be great. In the short term, as decisions are made about the forward direction for the PCHO suite, the federal government should take action to improve the efficiency and effectiveness of these organizations, and to prepare them for the future.

Underpinning any PCHO re-configuration are the 10 recommendations presented at the outset of this report – recommendations that we respectfully suggest the government consider implementing. We have then provided the Minister with four possible designs for the PCHO suite. We encourage the federal government to articulate its vision and goals for the future and choose a re-configured suite that best supports that vision. It is that clarity of vision and purpose that will drive what comes next, and that makes the future of the PCHOs so important as tools in its service. We thank the Minister for the privilege of doing this work and look forward to her feedback on our report.

APPENDIX 1

External Review Terms of Reference

Context

Improving the responsiveness and sustainability of Canada's health care system requires strong national leadership and pan-Canadian collaboration among governments and stakeholders. This year, the federal government will negotiate details for the new ten year health accord with provincial and territorial governments focused on home care, mental health, pharmaceuticals and health innovation. The Government is also taking leadership on a range of other health care issues including the *Canada Health Act*, medical aid in dying, Indigenous health, and opioid misuse.

As the focal point for health care policy in the federal government, Health Canada engages with provinces and territories and stakeholders through a range of vehicles, including intergovernmental bodies, grants and contributions and through several pan-Canadian health organizations (PCHOs), which receive the majority of their funding from the Government of Canada. These organizations are self-governing not-for-profit agencies with representation from governments, experts and stakeholders and were created over the past three decades to respond to specific Canadian health system needs and to advance federal and national objectives for health care. In Canada's decentralized health system, their role has been to build partnerships to support essential health system functions at the national level and facilitate mobilisation and collaboration on priority issues of national concern. With an annual spend in excess of $300M and some 1300 employees, PCHOs serve as important instruments of federal health care policy.

The Government has previously received advice from the federal Advisory Panel on Healthcare Innovation on its approach to supporting change and adaptation in Canada's health care system. Among other things, the Panel recommended consolidating certain PCHOs to enhance their impact within the health care system and to better respond to current and emerging priorities and needs. With the health system facing pressures associated with access to affordable drugs, health information and big data, mental health and addictions, service delivery outside of hospital, innovation and quality, and management of chronic conditions, now is an opportune time to assess how the PCHOs can better support federal interests and FPT work on these issues.

Objectives

This review is a forward-looking exercise to advise the Minister of Health on approaches to advance federal and pan-Canadian objectives in health policy and deliver results for Canadians.

Given a more engaged federal government and the ongoing need for national leadership in health policy, it is important to ensure the role and structure of PCHOs is optimized to maximize the reach and impact of federal investments in these organizations.

Mandate

The Minister has appointed two External Advisors to undertake a time-limited review, to be formally launched in fall 2017, to provide advice and recommendations to the Minister as follows:

1. Assessing the role and impact of the current suite of PCHOs as a means to advance progress on pan-Canadian health care priorities and federal objectives in relation to the following key issues:
   a. Improving the affordability, accessibility and appropriate use of pharmaceuticals
   b. Optimizing synergies between health data collection and information technologies
   c. Addressing mental health and problematic substance use
   d. Strengthening systems to deliver care at home and in the community
   e. Promoting service delivery innovation
   f. Enhancing pan-Canadian collaboration in priority areas

   This assessment should situate the work of PCHOs in a broader ecosystem of federal/national organizations working to advance progress in these areas. It should also explore the value-added of the PCHO model relative to other approaches and strategies (i.e., federal-provincial-territorial engagement; federal grants and contributions; federal direct program delivery).

2. Re-imagining the PCHO suite to expand their reach and impact in: driving consistency and standardization on key issues across Canada; strengthening pan-Canadian capacity to respond to emerging issues and challenges; leading efforts to accelerate health innovation; and advancing a national vision for the health system of the future.

The External Advisors will have full independence in their advice and recommendations and will have the mandate to consider a broad range of options to address the mandate, as described above. These could include reconfiguring the PCHO suite, pooling federal PCHO investments, and/or developing a new approach, not necessarily based on the PCHO model, to accelerate engagement and collaboration on health care policy.

The External Advisors will be mindful of current funding levels and fiscal constraints in formulating advice on proposed options for moving forward. In their advice, they will also identify implementation considerations.

While the objective of the review is to provide advice and recommendations to the Minister of Health, the Minister retains the ultimate responsibility, accountability and sole authority for any decisions resulting from the advice. Any proposal to reconfigure, merge or wind-down one or more of these organizations would be pursued by the federal government in its role as funder and participant in the governance of PCHOs. In the case of statutory bodies under federal legislation, any proposals to change their mandates or structures would be subject to the Prime Minister's prerogative on the machinery of government.

External Advisors

The following two experts have been appointed by the Minister of Health to undertake this work:

- Pierre-Gerlier Forest
- Danielle Martin

Method of Work

In developing their advice, the External Advisors will take a focused and evidence-based approach in the review, with consideration of a range of issues, including the many achievements and successes of the PCHOs since their creation.

The External Advisors have latitude on the scope and approach to the work and will have discretion as to who to consult and how to carry out their analysis. In particular, the External Advisors may consult with individuals and organizations to inform their review, such as representatives of the PCHOs, provincial and territorial governments, stakeholders and experts.

During the course of their work, the External Advisors may request and receive confidential information from Health Canada and the PCHOs, in which case they commit to keeping this information secure and confidential.

Reference Group

The External Advisors will consult with a small reference group of up to 12 individuals with expertise relevant to this review to ensure that they have access to a broad range of expertise and perspectives, including:

- **Governance/machinery** – Expertise on broader governance and machinery issues, including: government decision-making process; intergovernmental context in health; role of arm's length organizations as policy levers
- **PT/policy maker** – Provincial and territorial perspectives from former PT decision/policy-makers
- **Health care leader** – Individuals who have demonstrated leadership in the health field
- **Operational PCHO experience** – Operational experience in managing and leading PCHOs
- **Expert/academic** – Views from experts and academics with deep knowledge of health care in Canada

The External Advisors will select participants who, in their view, are best suited to provide them with the expertise and range of perspectives needed to enable them to provide robust advice to the Minister.

At their sole discretion, the External Advisors may engage on an as-needed basis with some or all members of the reference group to help inform their work and seek advice, with the timing and frequency of any such engagement to be determined by the Advisors. Potential candidates to the reference group must sign a confidentiality agreement in which they commit to keep all discussions, communications and information received in the course of their participation in the group confidential.

Process and Timelines

The External Advisors will be asked to undertake this work on a part-time basis beginning in September, 2017. Their activities will be carried out in accordance with departmental and federal government principles and requirements, as set out in applicable policies and legislation, with oversight from the Deputy Minister and his delegates.

The External Advisors will update the Minister on their work periodically throughout the course of their review. At the conclusion of their review, the External Advisors will publish a summary report on their key findings. Timing of the release of this report will be at the discretion of the Minister.

The External Advisors will be supported by a Secretariat housed within the Strategic Policy Branch of Health Canada.

Compensation

Recognizing the sizeable time commitment required for this review, Health Canada will make arrangements with the advisors and their employers to provide appropriate compensation.

APPENDIX 2

Reference Group

The terms of reference for the review allowed the External Advisors to select and consult with a small reference group of up to 12 individuals with relevant expertise to ensure that they have access to a broad range of expertise and perspectives, including:

- **Governance/machinery** – Expertise on broader governance and machinery issues, including: government decision-making process; intergovernmental context in health; role of arm's length organizations as policy levers
- **PT/policy maker** – Provincial and territorial perspectives from former PT decision/policy-makers
- **Health care leader** – Individuals who have demonstrated leadership in the health field
- **Operational PCHO experience** – Operational experience in managing and leading PCHOs
- **Expert/academic** – Views from experts and academics with deep knowledge of health care in Canada

The External Advisors held three face-to-face meetings with members of the reference group in addition to one-on-one discussions as needed to help inform their work and seek advice. A number of reference group members also served as readers to review the draft report before it was finalized. As per the terms of reference of the review, all reference group members signed a confidentiality agreement in which they committed to keep all discussions, communications and information received throughout their participation in the group confidential.

Reference Group Members

Ewan Affleck
Nadine Caron
Jean-Louis Denis
Dennis Kendel
Gregory Marchildon
Kimberlyn McGrail
James Mitchell
Stephanie Ngo
Ingrid Sketris
Milton Sussman
Holly Witteman
Jennifer Zelmer

APPENDIX 3

Key Informants and Commissioned Research

The External Advisors reached out to key informants to solicit general feedback as well as views on specific topics and issues relevant to their review. Informants included officials from the federal and provincial/territorial governments; Indigenous representatives; industry leaders; and stakeholders and academic experts. To help guide the discussions, informants were provided with the following general questions prior to meetings:

1. Given the mandate and the list of six key federal priorities/objectives outlined in the mandate, what do we need to know as we embark on this exercise?
2. What do you believe is the most important thing the federal government can do in health?
3. What would you be disappointed not to see in our final report?

Original research was also commissioned on specific topics as noted below.

List of Key Informants

John Abbott
Jill Adolphe
Richard Alvarez
Anil Arora
Jane Badets
Theressa Bagnall
Ross Baker
Neala Barton
Martin Beaumont
Brett Belchetz
Bob Bell
Alan Bernstein
Patrick Blanshard
Cecilia Bloxom
Luc Boileau
Judy Borges
Louise Bradley
Stephen Brown
Adalsteinn Brown
Gavin Brown
Jodi-Anne Brzozowski
Elaine Chatigny
Dave Clements
Tammy Clifford
Douglas Cochrane
Krista Connell
Mike Cook
Bruce Cooper
Brian Courtney
Kim Critchley
Heather Davidson
Janet Davidson
Michael Decter
Jonathon Dewar
Brent Diverty
Christine Donoghue
Martin Duggan
Kim Elmslie
Tiffany English
Will Falk
Valerie Fontaine
Neil Fraser
Denis Gauthier
William Ghali
Gilbert Ghantous
Lauren Goodman
Michael Green
Isa Gros-Louis
Frances Hall
Max Hendricks
Karen Herd
Abby Hoffman
Carol Hopkins
Doug Hughes
Huda Idrees
Mike Jancik
Toby Jenkins

Lynda Jobin
Maria Judd
Robert Kaul
Simon Kennedy
Sandi Kossey
Alika Lafontaine
Andreas Laupacis
Barb Lebrun
Victoria Lee
Steven Lewis
Madeleine Li
Teresa Lukawiecki
Peter Macleod
Sapna Mahajan
Shelagh Maloney
David Mannion
Ed Mantler
Miran Markovic
Rhowena Martin
Richard Massé
Tom Maston
Joe Mayer
Christopher McCabe
Joanne McCabe
Helen McElroy
Michael McKeown
Jean-Francois Melancon
Margaret Miller
Cindy Moriarty
Kathleen Morris
Cynthia Morton
Carol Mulder
Nancy Naylor
David Naylor
Andrew Neuner
Tom Noseworthy
Rita Notarandrea
Dana O’Born
Maureen O’Neil
Brian O’Rourke
David O’Toole
Louise Ogilvie
Norma Padron
Connie Paris
Denise Perret
Michel Perron
Linda Piazza
Tricia Poilievre
Amy Porath
Brian Postl
Chris Power
Sami Rehman
Roberta Reinholdt
Karen Reynolds
Stephane Robichaud
Jean Rochon
Michel Rodrigue
Louise Rosborough
Nathan Rotman
Denis Roy
Stephen Samis
Kevin Samra
Wayne Samuels
Marcel Saulnier
Sally Scott
Tom Sheldon
Graham Sher
Jeanine Shoveller
Evan Sotiropoulos
John Sproule
Lynn Stevenson
Colleen Stockley
Terry Sullivan
Milton Sussman
Jason Sutherland
Theresa Tam
Cara Tannenbaum
Bill Tatum
Gary Teare
Joshua Tepper
Robert Thomas
Leslee Thompson
Erin Tomkins
Meaghan Thumath
Paula Tyler
Lindy VanAmburg
Peter Vaughan
Eduardo Vides
Wenda Watteyne
Paul Weber
Sam Weiss
Stephanie Wellman
Daniel Werb
Brian Wheelock
Harindra Wijeysundera
Graeme Wilkes
Michael Wilson
Melanie Wright

Commissioned Research

Colleen Flood and Lorian Hardcastle: *To Row or Steer: Canada’s Health Care Corporations*
Lori Stoltz: *Exploring the Federal Role in Health and Health Care*
Renée Misfeldt: *Key Concepts and Selective References*

APPENDIX 4

Individuals, Stakeholder Organizations, and Government Entities who Provided Written Submissions

Individuals

Carol Adair
Nadine Agard
Barry Andres
Maaike Asselbergs
Angela Bachynski
John Bachynsky
Trevor Bhupsingh
Judy Birdsell
James Brierley
Denise Brown
Norm Buckley
Katarina Busija
Jane Buxton
Kim Calsaferri
Heather Campbell
Esha Ray Chaudhuri
Paul Chittick
Andrew Choate
Sharon Cirone
Real Cloutier
Doug Cochrane
Laura Cormier
André Corriveau
Michelle Craig
Ian Culbert
Sheri Cunningham
Donna Davis
Carolyn Davison
Claire de Oliveira
Lidia De Simone
Joyce Douglas
Gregory Doyle
Deb Dudgeon
Craig Earle
Christian Finley
Nancy Garvey
Prafull Ghatage
David Goldbloom
Donna Goring
Stacey Greening
Paul Griffiths
Paul Grundy
Jada Harvieux
Ross Hayward
John Hirdes
Lisa Hjorleifson
Bill Holling
Carol Hopkins
Linda Hughes
Anya Humphrey
Susan Inman
Paul Johnson
Ann Dowsett Johnston
Kami Kandola
Sheldon Kennedy
Niek Klazinga
Claude Laflamme
Eugene Leblanc
John Lee-Bartlett
Allen Lefebvre
Barbara Lefort
Clare Liddy
Karen MacCurdy-Thompson
Pauline MacDonald
Carol Marks
John Maxted
Irene McGhee
Vanessa Mercer-Oldford
Anthony Miller
Malcolm Moore
Josee Morin
David Mowat
Garey Mazowita
Carole Mulder
Andrew Murie
Emily Musing
Anne Newman
Don Newsham
Kate O'Connor
Karen Oldford
Marc Paris
Janice Paskey
Donna Penner
Geoff Porter
Perry Poulsen
Zal Press
Nigel S. B. Rawson
Theresa Sabo
Louise Simard
Marshall Smith
Matt Snyder
Harvey & Margaret Spurrell
Robert Strang
Simon B. Sutcliffe
Wayne Taylor
Bill Tholl
Gail Turner
Franco Vaccarino
George Weber
John Weekes
Daniel Werb

Stakeholder Organizations and Government Entities

Accreditation Canada & Health Standards Organization
Alberta Health
Alberta Health Services
Alberta Health Services – Health Technology Assessment and Innovation Team
Alberta Health Services – Infection Prevention and Control Program
Alliance for Access to Psychiatric Medications
Alzheimer Society of Canada
Arthritis Society
AstraZeneca Canada
Australian Institute of Health and Welfare
Best Medicines Coalition
British Columbia Schizophrenia Society
Canadian Academy of Health Sciences
Canadian Arthritis Patient Alliance
Canadian Association of Medical Radiation Technologists
Canadian Blood Services
Canadian Breast Cancer Network
Canadian Cancer Action Network
Canadian Cancer Society
Canadian Cardiovascular Society
Canadian Dental Hygienists Association
Canadian Drug Expert Committee
Canadian Drug Policy Coalition
Canadian Federation of Nurses Unions
Canadian Frailty Network
Canadian Health Leadership Network
Canadian Hospice Palliative Care Association
Canadian Life and Health Insurance Association
Canadian Liver Foundation
Canadian Medical Association
Canadian Medical Protective Association
Canadian Mental Health Association
Canadian Nurses Association
Canadian Partnership for Quality Radiotherapy
Canadian Primary Care Sentinel Surveillance Network
Canadian Psychiatric Association
Canadian Standards Association (CSA Group)
Canadian Treatment Action Council
CancerControl Alberta
Cardiac Health Foundation
Central Regional Health Authority (NL)
Centre for Addiction and Mental Health
Children's Mental Health Ontario
Choosing Wisely Canada
Coalition of Canadians for Equitable Access to Depression Medication
College and Association of Registered Nurses of Alberta
College of Family Physicians of Canada
Crohn's and Colitis Canada
Department of Health and Community Services, Government of Newfoundland and Labrador
Department of Health and Social Services, Government of the Northwest Territories
Diabetes Canada and the Juvenile Diabetes Research Foundation
First Nations Health Authority (BC)
GOJO Industries, Inc.
Health Charities Coalition
Healthcare Insurance Reciprocal of Canada
HealthCareCAN
Hospital Diagnostic Imaging Repository Services
IBM Canada
Infection Control Epidemiologists of BC
Innovative Medicines Canada
Institute for Clinical Evaluative Sciences
Institute for Safe Medication Practices Canada
International Centre for Science in Drug Policy
Johnson & Johnson
Kidney Foundation of Canada
Lundbeck Canada Inc.
MEDEC – Canada's Medical Technology Companies
Merck Canada Inc.
Mood Disorders Society of Canada
Multiple Sclerosis Society of Canada
Ontario Ministry of Health and Long-Term Care
Ontario Telemedicine Network
OntarioMD
Patients Canada
Physiotherapy Association of British Columbia
Royal College of Physicians and Surgeons of Canada
Saskatchewan Cancer Agency
SPOR Network in Primary and Integrated Health Care Innovations
Think Research
Vector Institute

APPENDIX 5

Summary of Stakeholder Submissions

Context

From October 4 to November 24, 2017, the PCHO External Review invited interested stakeholders to provide written submissions in response to five guiding questions:

1. Based on your experience and interactions with one or more of the PCHOs, what are the major strengths and successes of the organization(s) in advancing federal and pan-Canadian health system priorities?
2. Based on your experience and interactions with one or more of these organizations, what are the major weaknesses and gaps of the organization(s) in advancing federal and pan-Canadian health system priorities?
3. How can the suite of PCHOs work better together with partners such as governments, researchers, patients and the private sector to improve their effectiveness and impact in the Canadian health-care system?
4. How well, in your view, do the PCHOs function as a group? Where are the synergies and the gaps? How well do they, as a group, advance key priorities for the health system?
5. Do you have other viewpoints on the role and the impact of the PCHOs in supporting Canadian health priorities that you'd like share?

In response, we had 184 written submissions from a range of stakeholders, including patient groups, care providers, organizations that interact with the PCHOs, provincial and territorial officials, academic experts, and private sector groups. We also heard from interested Canadians, many of whom expressed gratitude for the work of these organizations.

The submissions were a source of valuable insight, and we would like to thank those who took the time to share their views with us.

While there was a considerable diversity of views on individual organizations, we were struck by the convergence of opinion around several key themes. These reflected the themes we heard in our discussions with key informants and are identified and described below.

PCHOs are not viewed as a coherent suite of organizations

It was not clear to most stakeholders how, or if, the PCHOs operate as a unified suite of organizations. In fact, many said that they view the PCHOs as islands with no connecting structure to bridge cross-cutting issues, share information, or enable collaboration, which inevitably leads to inefficient overlap and duplication of mandates and efforts. Several submissions suggested the need for a common vision and priority-setting mechanism to address this deficiency, along with shared metrics and outcome measures applied to each organization on common established priorities. Some called for enhanced federal/provincial/territorial leadership and improved information sharing to ensure effective integration of the PCHOs' work, while others argued for the need to tie centralized funding across the PCHOs to shared goals in order to incentivize meaningful collaboration between and among the organizations.

Some respondents offered suggestions and opinions on how the suite of organizations could be better configured to reduce duplication and meet system needs.

Existing PCHOs do not meet health systems needs

While the PCHOs were generally seen as having an important role to play in addressing key health systems' needs, the majority of respondents saw the current suite of organizations as unable to meet current and future needs. Among the points cited was that the siloed approaches of the PCHOs and overly narrow mandates have led to critical gaps in their work plans. For instance, the continued lack of interoperable electronic medical records was viewed as a key barrier to harnessing the full potential of data. Further, the confusion of roles and lack of integrated funding to support health-care innovation, as well as the need to address health-care quality more holistically (safe, patient-centred, efficient, and equitable) were identified as other key gaps requiring attention. Some submissions also called upon the PCHOs to take action and support efforts to address the social determinants of health in a more coordinated way.

PCHOs need to take a leadership role in improving the health of Indigenous populations

Several stakeholders were acutely aware, and to some extent critical, of the PCHOs' failure to articulate a clear role with respect to improving Indigenous health outcomes and services. In particular, PCHOs were generally perceived as failing to adequately consider Indigenous health issues, and most PCHOs – with the exception of CPAC and MHCC – were viewed as having made only minimal efforts to provide resources or collaborate with Indigenous partners on key priorities. Additionally, submissions from Indigenous organizations and representatives pointed out that there are unique health challenges facing First Nations, Inuit, and Métis populations that require distinctive approaches, and in the past, some PCHOs have failed to recognize this as they attempted to implement PCHO initiatives within an Indigenous context.

Some respondents stressed that PCHOs must also respect internal Indigenous governance processes and self-determination by engaging with Indigenous partners much earlier in the planning phases of initiatives to help determine the best approach for Indigenous people.

Others suggested ways to enhance the PCHOs' role in improving Indigenous health, calling on the PCHOs to establish more meaningful partnerships with Indigenous organizations, dedicate greater funding and resources for shared projects on Indigenous health, and embed Indigenous principles within governance processes and initiatives. Some also recommended that improving Indigenous health should be a cross-cutting objective for all PCHOs.

PCHOs do not adequately involve patients and key stakeholders in their work

There was a significant amount of shared sentiment that patient engagement among the PCHOs within decision-making and priority setting processes is insufficient, and that PCHOs typically only engage with a limited range of partners in their activities. The result is that many stakeholders and patient groups feel that PCHO programs and initiatives do not necessarily reflect their priorities, and subsequent engagement efforts can appear to be token or disingenuous. Many submissions called on PCHOs to engage with a much broader range of actors (such as Indigenous organizations; private sector groups; patients, families, and other caregivers; health-care providers; and the research community) much earlier in their decision-making and program development processes. In addition, some requested formal patient representation within the governance structures of each PCHO, and a coordinated and uniform framework to ensure meaningful patient involvement in the design of programs and initiatives.

APPENDIX 6

Key Concepts and Selective References

This section was completed at the request of the external advisors by Dr. Renée Misfeldt, a health systems and policy researcher from Alberta. These concept papers elaborate on key topics and themes discussed in the report and were used by the external advisors to inform their review. Dr. Misfeldt assumes all responsibility for any errors or omissions; questions about the content should be directed to the Review Secretariat. Dr. Misfeldt would like to acknowledge the contribution of the Secretariat in editing the papers.

21st Century Health Systems

Some of the many pressures that are shaping health systems of the 21st century include changing demographics, technological innovations, advances in health research, increased globalization, and economic factors. According to the WHO, there are five key components underpinning a well-functioning health system: improving population health status, addressing threats to populations, protecting people from financial hardship due to health status, providing equitable access to people-centred care, and putting mechanisms into place for public participation (WHO 2010). To help guide decision-makers in shaping health systems to meet these needs, a variety of approaches, considerations, and frameworks have been put forward. The WHO has developed a framework for Integrated, People-Centred Health Services that puts the comprehensive needs of people and communities, not only diseases, at the centre of health systems, and empowers people to have a more active role in their own health (WHO 2016). Other approaches and considerations have focused on standardized patient value outcomes (Porter and Teisberg 2006), relationship-based service delivery (Frist 2005; Martin 2017), improved communications through e-health solutions (Adler-Milstein and Jha 2012; Frist 2005; Baker and Denis 2011), patient engagement in clinical care decisions and health system design (Advisory Panel on Healthcare Innovation 2015; Baker and Denis 2011), and investments in precision medicine (Frist 2005; Advisory Panel on Healthcare Innovation 2015).

To move health systems into the 21st century, it is necessary to go beyond the "pilot project" stage of innovations in health care toward effective and sustainable scale-up (Martin 2017; Perla et al 2018). Other countries have been experimenting with diffusing large-scale system transformations. One example of this is the *Affordable Care Act* in the United States, which was intended to improve access to insurance coverage for more Americans (Weil 2015) and includes innovative approaches to promote integrated health care through the creation of Accountable Care Organizations (Centers for Medicare & Medicaid Services 2017). Canada's movement towards implementing the components of a 21st century health system is still evolving; it is important though to frame this very complex evolution through a health systems lens rather than taking a piecemeal approach (Willis et al 2014).

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Accreditation

Health-care organizations such as hospitals have many and sometimes conflicting expectations to meet (Pomey et al 2010). They need to optimize performance, safeguard patient safety, and allow for physician autonomy while ensuring standardized care. Or they may have competing goals such as training health-care providers and caring for patients. Above all, they must provide the highest standards of care given their available resources and context. Accreditation is a voluntary process intended to improve quality and safety within health-care organizations using a set of predetermined standards (Braithwaite et al 2006; Greenfield et al 2011; Greenfield et al 2012). The evaluation process typically includes self-assessment against a given set of standards and on-site surveys, leading to a decision on whether to award accreditation status. Getting accreditation status gives a health organization recognition of high quality, good management, and coordination of health services and acknowledgement of the work by the health-care providers and management (Aggarwal 2017). In Canada, the non-profit Accreditation Canada assesses health-care organizations across Canada for quality and optimized service delivery (Mitchell et al 2014; Pomey et al 2010). More recently, Accreditation Canada is embedding its process to incorporate the principles of patient-and-family centred care (Accreditation Canada 2017; Saulnier 2016).

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Arm's-length Organizations

Arm's-length organizations are typically public agencies or commissions that have been established by a government and that have a mandate to perform a public function. These organizations are generally accountable to governments but also have a degree of autonomy to make decisions on a specific topic or agenda. According to the UK Institute for Government, the sheer complexity of these organizations has resulted in several issues (Gash et al 2010). Firstly, there is often duplication of services that require clarity. Secondly, there may be issues with coordinating policies across the organizations. Finally, there needs to be a balance between the freedom of the organizations and the extent to which they are managed or have oversight by governments. For instance, governments may intervene in the decision-making if an issue arises that may be politically risky, especially if the organization has decision-making responsibilities (Cole 2000; Pink et al 2003). On the other hand, arm's-length organizations can also withstand the influence of politics and political interference (Pink et al 2003).

Arm's-length not-for-profit organizations were set up in the late 1980s to the early 2000s in Canada as collaborations between the federal, provincial and territorial governments on specific health topics (Marchildon 2013). For the most part, these arm's-length organizations are funded by the federal government and their governance teams are appointed through the provincial, territorial and federal governments. There are several functions that these arm's-length organizations serve including being guarantors of standards, having discretionary grant giving powers, and a delegated implementation of government policies (Gash et al 2010). The number and focus of each organization then may be subject to governance and performance review on a periodic basis (Gash et al 2010). This may involve the development of performance measurements (Lum et al 2016).

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Artificial Intelligence

The use of artificial intelligence (AI), whereby computers model intelligent behavior with little or no human intervention, has increased dramatically in health care, mainly due to advances in deep learning (Hamet and Tremblay 2017). Deep learning is a form of machine learning that gives computers the ability to learn from experience with little human supervision. While it is not a new concept, its application in health-care informatics and services is growing (Wang 2016). For example, AI technologies using deep learning have been used in screening for diabetic retinopathy (Wong and Bressler 2016) and the classification of skin cancers (Estava et al 2017). AI using deep learning algorithms also has potential applications for diagnostics and patient management including pharmacology (Tsigelny 2018), radiography, medical imaging (Giger 2018; Mayo and Leung 2017; Thrall et al 2018) and surgery (Hashimoto et al 2018).

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Big Data and Health Architecture

There are vast amounts of data generated by the health-care system, increasingly available in digital formats. There are three main components of big data: a) volume, whereby there are large amounts of data generated; b) velocity, or the frequency and speed of data generation and sharing; and c) variety, in terms of the diversity of data types and sources (Canada Health Infoway 2013; Raghupathi and Raghupathi 2014). Over time, health-related data from various sources (e.g. electronic medical records, genome sequencing, and patient satisfaction) are created and accumulated continuously (Raghupathi and Raghupathi 2014). These massive quantities of data, or big data, are generated in real time to support various health system functions including disease surveillance and supporting clinical decisions at point of care (Kruse et al 2016; Raghupathi and Raghupathi 2014). A big data architecture, which is a data-based logical framework, is needed to capture the volume of data being generated in real time, transform it into a useable format, and allow for ease of data use (Wang et al 2015).

In 1991, Wilk noted that Canada's information data infrastructure was highly fragmented and indeed, the Canadian Institute for Health Information was introduced to ensure more consistency in data collection (National Task Force on Health Information 1991). However, according to the Advisory Panel on Healthcare Innovation (2015), more is needed to ensure that the collection and dissemination of big data has meaning for clinicians and decision-makers and that the gaps in the data collected are addressed. This involves the development of various architectures that support different clinical functions (Canada Health Infoway 2016). Policies and safeguards on data security, custodianship, and privacy are required to manage the massive amount of data being collected (Canada Health Infoway 2013; Weil 2014). The set of processes and frameworks that are necessary to ensure important data is formally managed is known as data governance (Sarsfield 2009). According to a recent OECD report comparing health data governance in select OECD countries, Canada currently has limited health data governance and is lagging behind its peers, ranking 11th of the 20 OECD nations examined (OECD 2015).

Recognizing the need to strengthen health data governance, in 2017 the ministers of health from all OECD countries, including Canada, endorsed the recommendation of the OECD Council on Health Data Governance, which calls on member governments to establish a health data governance framework and identifies core elements to maximize the potential of using health data while protecting individuals' privacy (OECD 2017).

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Delivery of Health Care in Canada

Canada's 1867 Constitution set out federal and provincial responsibilities for health care (Deber 2003). The federal government has jurisdiction over specific health-care services including prescription drug regulation and safety, funding for health benefits and services for eligible First Nations and Inuit peoples, and inmates in federal penitentiaries (Martin et al 2018). The provinces have responsibility for the provision of services covered under the *Canada Health Act*. The provinces also decide the range of other services or equipment that are included through subsidies or complete coverage. The result is often uneven access to a range of services not included in the *Canada Health Act* across the country such as dental care (Shaw and Farmer 2015), physiotherapy, chiropractic services (Dales 2005), and access to insulin pumps (Diabetes Canada no date). With the exception of Ontario, which introduced the Local Health Integration Networks in 2006, there was a large-scale trend towards regionalization in the 1980s and 1990s in Canada (Lewis and Kouri 2005; Boychuk 2009). The health regions or authorities are responsible for service delivery outside of physician services and primary care and are accountable to the provincial government for their budgeting and service delivery models (Marchildon 2015). More recently, several provinces such as Alberta and Saskatchewan chose to further centralize their health regions into a single entity.

Several key events have contributed to the scope and nature of Canada's health-care system (Detsky and Naylor 2003). Cuts to provincial transfers in the 1990s and the subsequent cuts to services gave rise to concerns about the sustainability of the health-care system. In the 2000s, several provincial reports were commissioned to set out the provincial perspectives and visions for Canadian health care (Fyke 2001; Mazankowski 2001). The Romanow Commission was also formed at this time to understand the perspectives of Canadians and their values when designing a future health-care system (Romanow 2002). In 2003, a provincial, territorial, and federal agreement was reached to fund several health areas such as primary health care and catastrophic drug coverage (Government of Canada 2003). Another agreement reached in 2004 set out a 10-year plan for Canadian health care including investments for reducing wait times and health human resource planning (Government of Canada 2004).

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Digital Health

According to Canada Health Infoway, digital health is the "use of information technology/ electronic communication tools, services and processes to deliver health-care services and facilitate better health" (Canada Health Infoway no date). With the advent of smart phones, wearable sensors, cloud-based technologies, web-based applications, and digital medical-related technologies (alternatively called eHealth or Medicine 2.0), data about patients can be transmitted between health-care providers and by patients themselves (Hoffman 2012; Lupton 2013). For instance, patients can transmit physiological information to their care providers from their homes using remote patient monitoring technologies (e.g. blood pressure cuffs and blood glucose readings) (Ong et al 2016; Ullman and Atreja 2017).

The electronic health record (EHR) is a digital version of a patient's medical record that gives providers a single point of entry about patient information (e.g. diagnosis, prescription history, treatment plans) (Häyrinen et al 2008). An interoperable EHR (iEHR) gives providers access to a patient's records at different sites within a network (Gheorghiu and Hagens 2016). Electronic medical records (EMRs) are digital versions of the physician's medical charts (Price et al 2013). Electronic prescribing, where physicians send prescriptions directly to a patient's pharmacy of choice also emerged as part of advances in EHRs (Zadeh and Tremblay 2016). Underscoring these digital health advances are concerns about data ownership and stewardship (Filkins et al 2016; Lee 2017; Vayena et al 2018).

While evidence points to Canada lagging behind other countries (Rozenblum et al 2011; Webster 2017), Canada has made strides in incorporating digital health technologies into clinical practice, research, and planning (Gheorghiu and Hagens 2016; Mamdani and Laupacis 2018). The use of EMRs by Canadian physicians, for instance, tripled between 2007 and 2014 (Collier 2015). However, the take-up of EMRs was variable across Canada with a high of 85 percent reported by Alberta to a low of 62 percent by New Brunswick (Collier 2015). Moreover, some provincial initiatives, such as Alberta's Netcare and Ontario's Connecting Ontario, have made considerable advances in centralizing large amounts of digital data (Mamdani and Laupacis 2018). Canada Health Infoway introduced PrescribeIT, which enables prescribers to electronically transmit prescriptions to prevent errors and fraud, and improve security (Canada Health Infoway 2017).

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Health Equity

In Canada and elsewhere there are gaps in the health status between different sub-populations. According to the World Health Organization, health inequities are "… systematic differences in the health status of different population groups" (WHO 2017). A social group's place in the socially constructed social gradients and access to resources often translates into striking differences in rates of morbidity and early mortality (Luchenski et al 2017). For instance, there is ample evidence that the lower an individual's socio-economic position the more likely they are to have lowered life expectancy (Marmot 2007). Likewise, in Canada and elsewhere Indigenous peoples have markedly lower life expectancies and higher rates of morbidity than the general population (Marmot 2007; World Health Organization 2007). Finally, several sub-populations including Canadians living with addictions and/or mental health challenges, the disabled, the homeless, and new immigrants also experience social exclusion, which is also linked to lower health outcomes than the general population (Browne et al 2012). Reducing health inequities requires action on many fronts including the fair distribution of resources, considerations of human rights, legal changes, and social inclusion policies (Baum et al 2010; Braverman 2011; Cohen et al 2017; Hall 2017; Luchenski et al 2017; Williams and Purdie-Vaughns 2016).

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Health Networks

Health and clinical networks have emerged in Canada and internationally to advance the uptake of health care and clinical practice innovations (McInnis et al 2012). These networks may be grouped by function, client group, disease, or speciality (e.g. vascular surgery) (Edwards 2002). The inclusion of other stakeholders (e.g. patients, researchers, and decision-makers) in the clinical networks facilitates the generation and uptake of evidence-based practices (Brown et al 2016). Networks can be informal (e.g. communities of practice), comprised of clinicians and stakeholders who focus on a complex health-care issue (Sheaff et al 2011; Spencer et al 2013). Other networks are formalized with organizational and governance structures with formal lines of accountability.

Several provincial and national networks were launched in Canada to bring clinicians, patients, and decision-makers together to optimize health-care services. In 2012, Alberta introduced Strategic Clinical Networks (SCNs) to bring stakeholders together to optimize health outcomes and value (Noseworthy et al 2015). The 14 SCNs drive innovations on various client groups, service needs (e.g. kidney care), and function (e.g. critical care) (Dick 2017; Noseworthy et al 2015). There are various formal and informal pan-Canadian networks that bring together stakeholders on a specific health issue including substance misuse (Hering et al 2014), mental health (Iyer et al 2015), neonatal health (Canadian Neonatal Network no date), and public health (Butler-Jones 2007; Kiefer et al 2003). Another network, the Canadian Primary Care Sentinel Surveillance Network, collects data from participating family physicians for research on and planning for primary care (Birtwhistle 2011). Finally, the Canadian Institutes of Health Research launched the Strategy for Patient-Oriented Research to bring together researchers, patients, policy makers, academic health centres, health charities, and other stakeholders to define and conduct research on several health issues such as primary care (Peckham and Hutchinson 2012).

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Health Technology Assessment

Advances in research and innovation have led to the proliferation of new technologies, pharmaceuticals, and health-care procedures aimed at improving health-care effectiveness and efficiencies. Yet not all of these innovations are beneficial and, in some cases, have proven to be harmful (Velasco-Garrido 2008 et al 2008). What is therefore needed is an evidence-based and systematic evaluation of each new innovation (e.g. surgical procedure, medication) for its effectiveness, cost effectiveness, and safety. According to the International Network of Agencies for Health Technology Assessment, health technology assessment (HTA) is the "… systematic evaluation of the properties and effects of a health technology, addressing the direct and intended effects of this technology, as well as its indirect and unintended consequences, and aimed mainly at informing decision-making regarding health technologies" (INAHTA no date).

The aim of HTA is to provide a systematic evaluation of new innovations to give decision-makers the most informed information for decision-making taking into account legal, ethical, and societal considerations (Lehoux et al 2004; Lehoux and Blume 2000; Sinclair 2001). For one thing, the relevance of the HTA inquiry to policy makers' needs has led to their engagement in priority setting and the assessment process (Lehoux et al 2004). More recently patients have also been engaged within HTA to ensure that innovations are applicable to their needs (Facey et al 2010; Gauvin et al 2010). HTA is also based on considerations of value. A common framework for assessing value in health care is to examine the health outcomes achieved per dollar spent (Porter and Teisberg 2006). Thus, an intervention (e.g. health technology) or program may be of high value if the accrued health benefits justify its costs. Conversely a low value intervention is one that does not have enough potential benefits to patients to warrant its costs. Making this determination, however, can be complex. Determining whether an intervention, service, or program of care is of value needs consideration given to differing goals among stakeholders, and patient and public demands (Porter 2010).

HTA has a long history in Canada. Governments use the recommendations from the provincial and national HTA organizations to make decisions about the safety, efficacy, effectiveness, and economic value of new technologies, procedures, and medications (Sinclair 2001; Menon 2015). HTA is done at the provincial and national levels in Canada (Marchildon 2013). For instance, in Quebec HTAs are conducted by the l'Institut national d'excellence en santé et en services sociaux (Menon 2015). At the national level, the Canadian Agency for Drugs and Technologies in Health (CADTH) conducts evaluations of new technologies, which inform the decision-making of participating governments with evidence-based recommendations. It is funded by the federal and provincial/territorial governments with the exception of Quebec (Marchildon 2013).

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History of Canadian Medicare

The Canadian Medicare system has its roots in Saskatchewan's agrarian socialism. While the introduction of universal coverage in Saskatchewan has a rich and long history (Brown and Taylor 2012; Naylor 1986; Houston 2002), one of the pivotal moments was the introduction of a universal hospital services plan in 1947. Other provinces, including Alberta and British Columbia, soon followed suit (Marchildon 2013). In 1957, the federal government passed the *Hospital Insurance and Diagnostic Services Act*, which sets out conditions that the provinces needed to satisfy to receive transfer payments (Brown and Taylor, 2012; Marchildon 2013). After an infamous physicians strike and subsequent political compromises (Naylor 1986; Marchildon and Schrijvers 2011), Saskatchewan extended universal coverage in 1962 to include physician services, based on the *Saskatoon Agreement* with physicians, which entrenched the predominant fee-for-service payment model (Marchildon and Schrijvers 2011).

In 1966, the federal government introduced the *Medical Care Act*, which set out single-payer insurance for physician and hospital services (Deber 2003). Other services, such as dental and pharmaceuticals, were not included under the *Medical Care Act* unless provided in a hospital setting.

In the ensuing years, user fees and extra-billing by physicians began to appear across Canada, which went against the principle of universality. In response, the federal government established the *Canada Health Act* in 1984, which set out the standards and principles that the provinces needed to meet in return for federal transfer payments (Verma et al 2014). While there are some provisions and exemptions made in some circumstances, the five principles embodied in the *Canada Health Act* are public administration, comprehensiveness, portability, universality, and accessibility. Since then, there has been considerable deliberation about what services should be covered under the *Canada Health Act* including prescription drugs, mental health services, long-term care and home care (Fierlbeck 2011; Martin et al 2018).

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Indigenous Health

The concept of Indigenous health is as complex and multi-dimensional as Indigenous peoples in Canada. According to the National Collaborating Centre for Aboriginal Health, advancing health and well-being among First Nations, Inuit, and Métis peoples incorporates the concepts of spirituality, connectedness, and reciprocity to the land and all life, self-reliance, and self-determination (Reading and Wien 2009). Despite their long history and proven effectiveness, traditional knowledge and healing practices have long been considered by academics as "unscientific" and excluded from Western medical practice. However, views have begun to change in recent years and there is an increasing recognition by decision-makers of the importance of culturally sensitive health care that incorporates traditional practices.

While the gap is slowly closing, Indigenous peoples in Canada generally have poorer health outcomes than non-Indigenous peoples. For example, the Indigenous population has higher rates of infant mortality than the non-Indigenous population (Smylie et al 2010). The underlying contributors to poorer health outcomes are highly complex and are related to various determinants of health including housing, racism, exclusion, and marginalization (Reading and Wien 2009). However, Canada's colonial past and policies aimed at assimilating Indigenous peoples has had tremendous implications for the health and well-being of the Indigenous population (De Leeuw et al 2015; Inuit Tapiriit Kanatami 2010). *The Indian Act* (1867), for instance, has served as an instrument of colonization and assimilation. Resulting programs such as the Residential Schools were responsible for intergenerational trauma (MacDonald and Steenbeek 2015). Between 2008 and 2015 the Truth and Reconciliation Commission of Canada sought to understand the role of the residential school program on the health and well-being of Indigenous peoples of Canada, culminating in 94 Calls to Action (of which seven were specifically focused on health). The United Nations *Declaration on the Rights of Indigenous Peoples* (UNDRIP), adopted in 2007, also speaks to the rights of Indigenous peoples to their traditional medicines and to maintain their health practices. While Canada initially voted against the *Declaration*, the federal government reversed its position in 2016 and has now committed to adopting and implementing the *Declaration*.

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Integrated Health Care

Integrated health systems provide a continuum of care that is coordinated across the different levels and settings of care within and beyond the health sector, and according to people's needs throughout their life course (WHO 2016). Integrated health-care systems are especially necessary in today's context to improve patient experiences, quality of care, health outcomes, and cost effectiveness (Leatt et al 2000). An important element of integrated care is to align and deliver services around the needs of patients and their families. Service integration requires shared governance, provider engagement, effective leadership, financial systems, common evaluation processes, and shared communications structures (e.g. EMR) (Ham and de Silva 2009; Shortell and McCurdy 2009; Suter et al 2009).

Integrated health systems can be difficult to implement in Canada, especially given the historic siloes that exist between government departments, health sectors, and service providers (Tsasis et al 2012). That said, there has been much interest in designing integrated services for different health issues or to begin merging different health-care sectors such as public health with primary care (Valaitis et al 2012), and the integration of services for Canadians living with mental health disorders and/or addictions within primary care (Kates et al 2011). Going beyond these models of care is streamlining and coordinating social services (e.g. housing supports) with health-care services for patients – such as patients with complex needs and Canadian seniors (Alderwick et al 2015; Ham and Curry 2011; Hendry et al 2016; McAdam 2009). At the clinical level, providers are increasingly using "social prescribing" as a means of connecting patients with various social support resources including housing advocacy or employment agencies (Andermann 2016).

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Learning Health System

The concept of the Learning Healthcare System (LHS) was introduced by the Institute of Medicine in 2007 (IOM 2007). The LHS, according to the IOM, is "one in which progress in science, informatics and care culture align to generate new knowledge as an ongoing natural by-product of the care experience and seamlessly refines and delivers best practices for continuous learning in health and healthcare" (IOM 2007). A LHS involves a bidirectional feedback loop with evidence informing decision-making in real time (Morain et al 2017). It is a key element of a continuous quality improvement agenda which identifies innovations and potentially low value and harmful interventions (Friedman et al 2015). A LHS requires a shared responsibility culture between and among researchers, clinicians, patients, and policy makers (Budrionis and Bellika 2016) as well as organizational structures that allow for coordinated learning of interdependent actors (Touati 2015).

Achieving a LHS in Canada requires not only policy capacity at different levels but also robust big data and information technology infrastructures that can be accessed and used by clinicians, managers, planners, and researchers (Friedman et al 2017; Gardner 2015; Lessard et al 2017; Reid 2016). It also requires building capacity in the Canadian research community to adapt to a broader skill set and the creation of partnered environments (Reid 2016). The expansion of skill sets, for instance, might include an understanding of implementation science, system complexity, and quality improvement (Reid 2016).

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Patient and Public Engagement

A health system that is truly responsive to the needs of individuals and communities must engage fully with patients and the public. At the micro level, patients and their families are increasingly taking an active role in their care plans through self management and within their relationship with health-care providers (Coulter 2011; Coulter et al 2008; Pomey et al 2015). At the macro level, public engagement in program and policy development translates into more responsive decision-making. Effective patient and public engagement (PPE) is much more complex and includes a variety of activities across the health-care system including health technology assessment (Gauvin et al 2014), program and intervention design (Carman et al 2013), health-care research (Abma and Broerse 2008; Canadian Institutes of Health Research 2014; Domecq et al 2014), quality improvement (Baker et al 2016), and policy development (Carman et al 2013).

PPE exercises have been used at various times and using different mechanisms in Canada to inform public policy decisions and service delivery options. In the early 2000s, the Commission on the Future of Health Care in Canada employed a large-scale engagement process with Canadians to set the priorities for Canadian health care (Maxwell et al 2003). Other mechanisms for PPE in health care used in Canada include citizen advisory boards (Jabbar and

Abelson 2011), citizen juries (Abelson et al 2010), and patient advisory committees and councils (Sharma et al 2017).

Venues for PPE have been introduced in Canada outside of clinical decision-making. British Columbia, for example, launched Patients as Partners in 2008 as a means of promoting patient engagement in not only their own care but also in quality improvement and health-care redesign decision-making (Bar et al 2018). Health Quality Ontario introduced a framework for patient engagement that extends patient voices beyond their own care to health systems redesign (Health Quality Ontario no date). Patient engagement in Canada's health research agenda was bolstered by the introduction of the Strategy for Patient-Oriented Research by the Canadian Institutes of Health Research (CIHR 2014).

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Patient Safety

Patient safety is one of the six dimensions of health-care quality enumerated by the Institute of Medicine in its landmark 2001 report, *Crossing the Quality Chasm* (IOM 2001). There are four properties of patient safety (Baker 2015). First, most patient safety problems (e.g. hospital acquired infections) are preventable. The second is that patient safety issues are measurable and can be used to measure organizational and health system performance. Third, addressing patient safety requires a focus on improvement rather than on individual blame. Finally, improving safety requires complex interventions rather than simple solutions. Accountability for reducing errors and adverse events therefore requires action not only at the organizational level but also at the provincial, territorial and federal levels.

There were several key papers that emerged in the early 2000s that outlined the integration of the properties of patient safety within health-care practice. In 2000, the Institute of Medicine released *To Err is Human*, which raised awareness about the toll of medical errors on patient safety (IOM 2000). In its report, the IOM called for system-wide action to address medical errors (IOM 2000). In Canada, a task force led by the Royal College of Physicians and Surgeons reported on the state of patient safety in Canada in 2002 within its report *Building a Safer System: A National Integrated Strategy for Improving Patient Safety in Canadian Health Care* (National Steering Committee on Patient Safety 2002). Later in 2004 Baker et al reported on the Canadian Adverse Events Study (CAES), which outlined the nature and rates of patient safety in Canada (Baker et al 2004). The researchers discovered that about 7.5% of all hospitalizations in Canada involved a medical error or adverse event (Baker et al 2004). Like the IOM they argued that reducing adverse events required a system-wide approach rather than focusing on the actions of individual health-care providers.

Several key actions flowed from these reports. First, the Canadian Patient Safety Institute was founded in 2003 as a means of taking strategic action to address patient safety across Canada. Patient safety metrics were also incorporated into provincial health quality councils. Patient safety checklists and algorithms (e.g. surgical check lists) were also introduced to reduce errors (Baker 2015; WHO no date). However, despite these actions, progress in improving patient safety has been slow (Baker 2015). There are several possible reasons for this. One is that integrating patient safety interventions within existing workplace practices is often done without assessing their impact on the workload or routines of front-line providers (Baker 2015). There is also a need for clear organizational policies on patient safety and the collection of patient safety performance metrics (Baker et al 2010).

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Personal Responsibility for Health

The goal of many public health strategies aimed at addressing rates of chronic diseases has traditionally focused on changing individual choices and lifestyles. Public health campaigns, for instance, have extolled the virtues of healthy eating, exercise, and practicing safe sex (Brown 2013). Individual lifestyles can be used as a rationing measure to offset the costs of health-care services and policies, such as so-called "sin taxes" or incentives within private insurance plans. An expanded conceptualization of personal responsibility includes being a "good patient" who uses available health-care resources wisely and exercises self-management as part of his or her treatment plan (Steinbrook 2006).

Canadian health promotion policies have traditionally focused on healthy lifestyles. For instance, the rising rates of obesity in Canada have led to policies and programs that promote healthy eating (e.g. adherence to the Canadian food guide) (Alvaro et al 2011). Canadians are increasingly taking personal responsibility for health through self-management, especially for chronic diseases (Health Council of Canada 2012). There has been a surge in the use of self-management techniques including peer support, mHealth apps, mobile digital devices, and patient portals that encourage patients and their families to monitor symptoms and that improve access to information (Lupton 2013; Logan 2013; Urowitz et al 2012). However, one's health cannot necessarily be reduced to individual choices. It is also important to consider the social, environmental, and economic factors that determine health, including food security, sanitation, access to quality housing, and food and drug safety (Resnik 2007).

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Population Health

While various definitions of population health exist, many focus on not only the health outcomes of the population or group, but also the distribution and inequalities of these outcomes (Kindig and Stoddart 2003). There are several factors that influence the health of a population that extend beyond individual behaviour and lifestyle to include social and environmental conditions in which they live and work (Cohen et al 2014). These include sanitation and clean water, access to green space, healthy child development, food security, income supports, and quality housing (Marmont 2010; Alderwick et al 2016). Population health studies often incorporate epidemiological approaches to describe the distribution, determinants, and burden of disease in populations, and to help guide approaches to manage diseases at a population level (Ness et al 2009).

In their seminal paper, *Why are Some People Healthy and Others Not?*, Evans et al (1994) outline the various social and environmental conditions in Canada that foster inequities in health outcomes. Canadians, for instance, have differential access to the conditions needed to ensure healthy outcomes. Thus, investments are needed at all levels of government to address the key issues of population health that extend beyond health care (Cohen et al 2014; Public Health Agency of Canada no date). These include more emphasis on upstream services and policies that ensure that all Canadians achieve their optimal health. One example of these upstream services is promoting healthy child development through addressing child poverty and neglect (National Collaborating Centre for Healthy Public Policy 2010).

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Precision Medicine

Precision medicine (also known as personalized medicine) is a means of diagnosing, treating, and preventing disease at an individualized approach based on a patient's genetic makeup (Katsnelson 2013; McCabe and Husereau 2014). It is increasingly being regarded as a modality for clinical practice by providing physicians and other providers with biomedical data or "under the skin" genomic, epigenetic, and metabolic factors (Meagher et al 2017). Precision medicine can provide the biomedical data about a specific patient that complements his or her medical record and social circumstances (Meagher et al 2017; Pritchard et al 2017). It has the potential to reduce inefficiencies in health care and promote patient safety by tailoring interventions to patients (McCabe and Husereau 2014).

Precision medicine is increasingly taking its place in Canadian health care and has the potential for "rapid growth" due to a convergence of academic, clinical, and commercial interests (McCabe and Husereau 2014). However, there are concerns being raised about Canada's limited data infrastructure and a potential variability in access to testing among physicians and specialities (Bonter et al 2011). What is needed is strategic planning at all levels and sectors to promote Canadian innovations in precision medicine and to assess their potential for scale up and commercialization (Advisory Panel on Healthcare Innovation 2015).

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Primary Health Care

Primary health care is a broad concept that includes not only primary care – the individual’s first point of contact with the health system (Marchildon 2013) – but also health promotion, disease prevention, and population-level health functions. This definition formed the basis of the landmark Declaration of Alma-Ata from the WHO’s International Conference on Primary Health Care (WHO 1978), which went on to identify primary health care as the key to the attainment of the goal of health for all. Quality primary care is fundamental for attaining health equity (Starfield 2009) and for achieving better health at lower cost (Starfield et al 2005; Starfield 2011).

Canada has a long tradition in advancing primary health care, rooted in the work of Dr. Ian McWhinney – called the “father of family medicine” for his role in establishing family medicine as a distinct field and his contributions on patient-centred care (Beaulieu 2013). However, Canada’s primary health-care sector has long been described as “lagging” behind other countries (Hutchinson 2013) and any progress in primary health-care renewal fragmented across the country. Several reasons for this have been proffered, including the original social contract between the state and physicians embedded within Canada's Medicare system (Marchildon and Hutchinson 2016), a lack of financial investment, resistance from professional associations, and an overly centralized governance structure (Levesque et al 2015). In the early 2000s, Canada took a renewed interest in primary health-care reform through investments (e.g. Primary Health-Care Transition Funds) and federal/provincial/territorial agreements (e.g. 10-Year Plan of 2004).

Despite these concerns, some authors argued that Canada's primary health-care system has entered a transformative state with targeted investments in primary care transformation and the proposal and introduction of models of care that place the patient at the centre of services (Aggarwal and Hutchinson 2012; Hutchinson et al 2011; Strumpf et al 2012). For instance, the College of Family Physicians of Canada has adapted the patient-centred medical home model from the US to the Canadian context (Gutkin 2010; CFPA 2011), a model which promotes a whole-person orientation and services coordinated to meet the patients' needs (Katz et al 2017). Some provinces such as Alberta and Ontario introduced primary care practice models and networks in which physicians practice within a team-based model to meet local health needs (Marchildon 2013; Marchildon and Hutchinson 2016; Spenceley et al 2013).

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Publicly Funded Health Services

Under the *Canada Health Act* of 1984, Canadians have access to "medically necessary" services provided in hospitals and by physicians (Emery and Kneebone 2013). The provinces and territories provide public coverage for other services including dental care, optometry, psychology, home care, long-term care and prescription medicines (Daw and Morgan 2012; Lanoix 2017; Palley 2013). Since it is the purview of provinces and territories to define what services are "medically necessary", access to many of these services through public funds varies from province to province (Advisory Panel on Healthcare Innovation 2015; Emery and Kneebone 2013; Marchildon 2013; Sutherland and Busse 2016). Moreover, access to these services may be targeted to specific populations (e.g. seniors, children, or low-income Canadians) and often include co-payments or other charges to the patient at the point of service. Most working Canadians have access to private health insurance; however, again, the type and amount of coverage may differ depending on the employer's plan. In effect, a Canadian has access to hospital services after a cardiac arrest but may not have the out-of-pocket means to pay for community-based rehabilitation services or prescription medications (Advisory Panel on Healthcare Innovation 2015; Emery and Kneebone 2013). Alternatives to the current scenario have been proposed. For instance, having a comprehensive and universal plan to improve access to prescriptions has long been debated in Canada (Morgan et al 2015).

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Quality in Health Care

In 2001, the Institute of Medicine released *Crossing the Quality Chasm* to address the gaps in health-care quality, identify practices that impede quality health care and provide a system-wide strategy to improve quality in health care (IOM 2001). They defined health-care quality as "the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" and identified six domains to measure and describe health-care quality, and to help guide quality improvement: (1) effectiveness, (2) efficiency, (3) equity, (4) patient centredness, (5) safety, and (6) timeliness (IOM 2001). Another important quality framework – the Triple Aim – was introduced in 2008 by the Institute of Healthcare Improvement as an approach for optimizing health system performance (Berwick et al 2008). The Triple Aim has three dimensions: (1) improving the health of populations, (2) enhancing the patient experience of care, and (3) reducing the per-capita cost of health care. A Quadruple Aim framework was later introduced to recognize the need to monitor and address workforce outcomes (e.g. burnout) (Bodenheimer and Sinsky 2014).

The quality improvement (QI) principles have been incorporated into health system planning and performance in Canada. Health quality councils were introduced by several provinces to identify key issues in quality and to create locally based solutions. QI methodologies such as Six Sigma and Lean have been adapted or adopted across Canada as a means of improving the quality of care (Hall and MacKenzie 2014). For example, Lean was adopted in Saskatchewan to improve health-care performance (Kinsman et al 2014; Marchildon 2013). Of the six quality domains in the IOM framework, the safety domain received special attention at the federal level through the creation of the Canadian Patient Safety Institute (for more information on patient safety, see the accompanying concept paper on this topic). While the notion of the Quadruple Aim has not seen widespread usage in Canada, there is recognition of the need to continuously improve the health and well being of Canadian providers (Mery et al 2017).

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Slow Medicine

The notion of slow medicine is often viewed in contrast to “fast health care” where medical decisions are quickly made and the “newest” (and often more expensive) technologies introduced in rapid succession. Slow medicine, on the other hand, takes an approach that incorporates the virtues of listening to patients and using touch and compassion (Bauer 2008). The movement proposes that medical professionals build relationships with their patients and their families and make decisions about medical care that are more responsive and appropriate to their needs (Marnocha 2009; McCoulough 2011). Slow medicine is often advocated for vulnerable patients and those requiring end-of-life care since it moves away from sometimes unnecessary interventions (McCullough 2011). The issue for providers, however, may become one of having the sufficient time that it takes to build relationships with their patients. Public expectations of quick access to the latest interventions also needs consideration (Kerrigan 2017).

An important element of slow medicine is to promote the appropriate use of interventions that deliver good value, and avoid interventions that are unnecessary and indeed may be potentially harmful. Movements such as "Right Care" and "Choosing Wisely" have taken hold internationally as a means of encouraging physicians and patients to identify unnecessary and potentially harmful tests and interventions (Levinson et al 2015), and to avoid both overuse and underuse of appropriate tests and procedures. The principles of campaigns like Choosing Wisely influenced areas of research and quality improvement in Canada (Levinson and Huynh 2014). Launched in 2014, Choosing Wisely Canada sets out recommendations for reducing unnecessary tests and treatments for many specialties (Choosing Wisely Canada no date).

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Social Determinants of Health

The social determinants of health (SDOH) include the various social and environmental conditions that influence our health status and well-being (NCCPH and NCCDH 2012). This is not a new concept in Canada. In 1974 the Lalonde Report introduced the key determinants of health and well-being – the social and physical environment, biology, lifestyle and health-care organization (Lalonde 1974). In 1978 the World Health Organization addressed the SDOH through the *Declaration of Alma-Ata* (WHO 1978). In addition to affirming health as a basic human right, the WHO also stressed the need to address the social, political, and environmental determinants that significantly influence health outcomes (WHO 1978). The *Ottawa Charter*, released in 1986, further outlined the need for action to address the root causes of disparities in health outcomes (WHO no date).

There are several key factors or determinants of health including poverty, housing, food security, access to clean water, social supports, sexual orientation, gender and sex, race, green space, education, working conditions, and employment status (Raphael 2016; WHO 2008). Poverty is particularly important and has been called the single largest determinant of health by the WHO (WHO no date). Some of the SDOHs are highly complex such as colonialism and historic trauma (e.g. residential schools), which have contributed to disparities in the spiritual, mental, social, and physical health of Canada's First Nations, Inuit, and Métis individuals and communities (Reading and Wein 2009). While Canada has made progress in addressing the SDOHs, more work is needed to design and implement system-level interventions that extend beyond the current focus on lifestyle and behaviour choices (Raphael et al 2011; Baum and Fisher 2014). Various Canadian studies show that investments in improving social conditions influence the health of the population such as avoidable mortality (Ahmed and Shahid 2012; Dutton et al 2018).

Another key concept is embedding "health in all policies" (HiAP), which is defined by the WHO as "…an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity" (WHO 2014, p. 2). Canada has taken inroads into ensuring the principle of HiAP within public policies. Quebec, for instance, embedded Health Policy Assessment as part of policy development (National Collaborating Centre for Health Public Policy 2008). However, the inclusion of the HiAP principle within public policies has not gained widespread attention across Canada (Greaves and Bialystok 2011).

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Standardization of Health Care

Having a formalized and evidence-based standard set of procedures, protocols, checklists, and guidelines in health care allows for consistency, efficiency, and safety (Buchert et al 2016). They ensure that patients are given the same quality medical treatment by different providers and across facilities. The most common approach to standardization is the development of clinical pathways or care plans, which have detailed evidence-based guidance for diagnosing and treating a medical condition or illness. The standardization of health-care services improves efficiency, decreases risk, and improves patient safety since it reduces variability in care and the potential for human error (Rotter et al 2010; Rozich et al 2004; Leotsakos et al 2014). There are various clinical practice guidelines and protocols in use throughout Canada's health-care system to ensure uniformity in clinical practice in various settings. The Canadian Medical Association, for instance, has a database of clinical practice guidelines (CMA no date). There are various protocols, guidelines, and care pathways emerging in Canada to set out a standard set of practice including childhood asthma in primary care (Cave et al 2016), patients presenting with psychosis (Addington et al 2017), and surgical checklists (Urbach et al 2014).

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APPENDIX 7

Timeline for Key Reports and PCHOs

1987: House of Commons completes a study of alcohol and drug abuse; Minister of Health asks Dr. David Archibald to develop a "national focus" for Canadian efforts to address substance abuse and additions

1988: *CCSA Act* passed, creating CCSA

1989: FPT Health Ministers create CCOHTA

1991: National Task Force on Health Information report: "Health Information for Canada"

1992: FPT Ministers agree to create CIHI; CIHI incorporated in 1993 and operational in 1994

1994-96: National Forum on Health releases its reports, including recommendations on evidence-based decision-making

1996-97: CHSRF created (announced in 1996; operational in 1997)

1999: Advisory Council on Health Infostructure report: "Canada Health Infoway: Paths to Better Health"

2000: FPT Advisory Committee on Health Infostructure releases blueprint and tactical plan

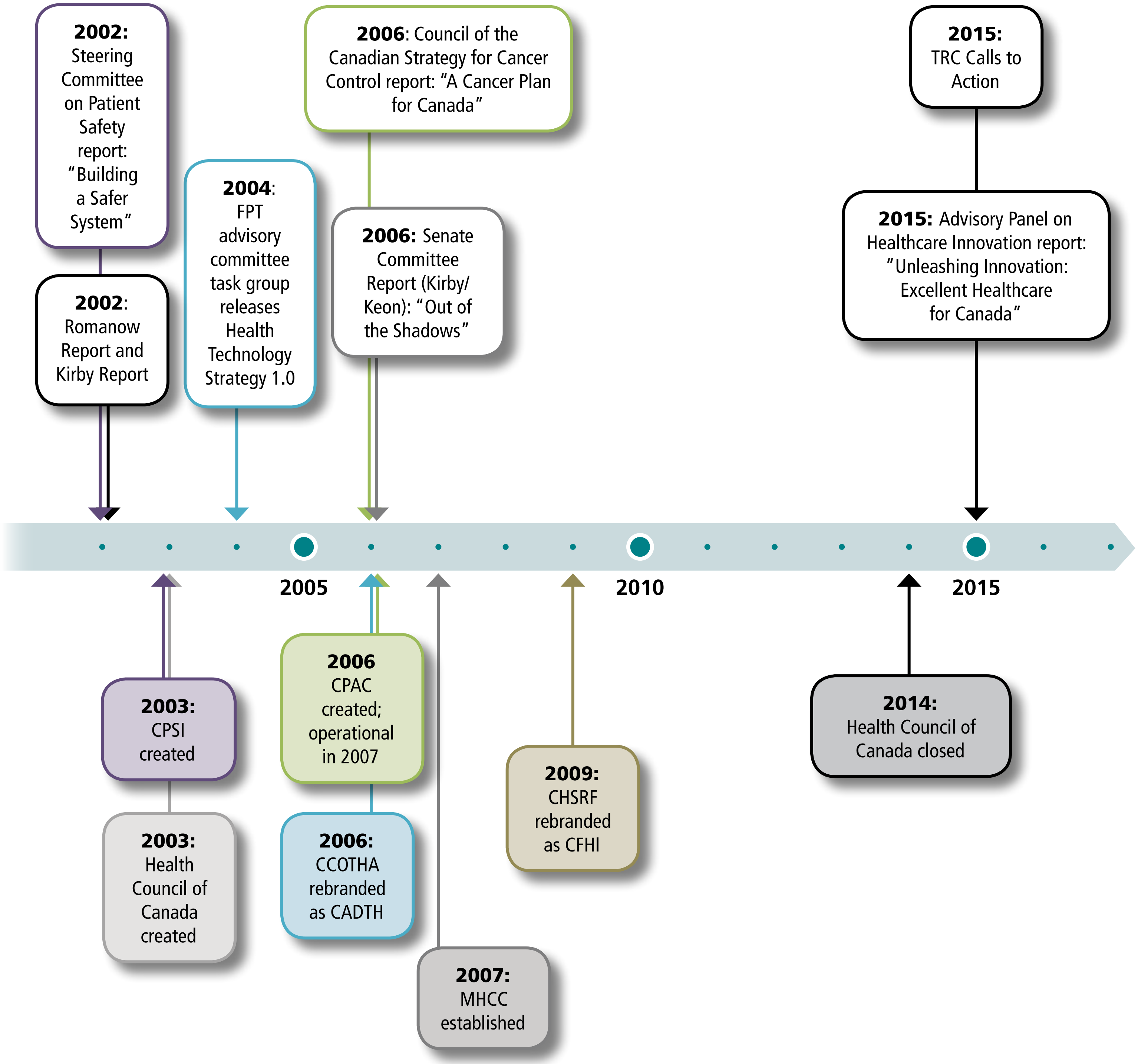
2001: Infoway incorporated

1985

1990

1995

2000



2002: Steering Committee on Patient Safety report: "Building a Safer System"

2002: Romanow Report and Kirby Report

2004: FPT advisory committee task group releases Health Technology Strategy 1.0

2006: Council of the Canadian Strategy for Cancer Control report: "A Cancer Plan for Canada"

2006: Senate Committee Report (Kirby/Keon): "Out of the Shadows"

2015: TRC Calls to Action

2015: Advisory Panel on Healthcare Innovation report: "Unleashing Innovation: Excellent Healthcare for Canada"

2003: CPSI created

2003: Health Council of Canada created

2006 CPAC created; operational in 2007

2006: CCOTHA rebranded as CADTH

2007: MHCC established

2009: CHSRF rebranded as CFHI

2014: Health Council of Canada closed