Defining Health and Health Care Sustainability.
Preface

The costs of the Canadian health care system are surging—currently taking up almost half of provincial budgets—and threaten health and health care sustainability. But costs are just one of the concerns jeopardizing this sustainability. Others include human resource shortages; inequities; safety of services; poor productivity; Canadians’ decreasing trust and confidence in, and changing expectations for, the health care system. We need major reforms to preserve and hopefully improve the quality of our health care. To meet this challenge, The Conference Board of Canada created the Canadian Alliance for Sustainable Health Care (CASHC) program to research and analyze the full range of issues and options for solutions.

This report is funded by CASHC and provides a definition of sustainability and a sustainability framework to guide CASHC’s policy work and future recommendations regarding health care. An extensive literature review and comprehensive interviews with representatives of health care stakeholders—health care organizations, governments, profit and not-for-profit insurance organizations, life sciences industries, and citizens’ advocacy organizations—were the basis for developing this definition and the framework.

The sustainability framework in this report has four guiding principles and the six key factors deemed essential to support sustainable health and health care. While these may not be new to the reader, the innovation in the report comes from their systematic implementation across the continuum of care, across diseases, and across departments controlling determinants of health in order to create a well-functioning system.
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Acknowledgements

We would like to thank the following individuals for their guidance and support throughout this project: Alan Stewart, Cynthia Perry, Don Juzwishin, Judith Shamian, and Owen Adams.

The findings and conclusions of this report are entirely those of The Conference Board of Canada and do not necessarily reflect the views of the Alliance investors or the contributors identified above. Any errors or omissions, in fact or interpretation, remain solely the responsibility of The Conference Board of Canada.

About the Canadian Alliance for Sustainable Health Care

The Canadian Alliance for Sustainable Health Care (CASHC) was created to provide Canadian business leaders and policy-makers with insightful, forward-looking, quantitative analysis of the sustainability of the Canadian health care system and all of its facets.

The work of the Alliance is to help Canadians better understand the conditions under which Canada's health care system is sustainable—financially and in a broader sense. These conditions include the financial aspects, institutional and private firm-level performance, and the volunteer sector. CASHC publishes evidence-based, accessible, and timely reports on key health and health care systems issues. Research is arranged under these three major themes:

- Population Health
- The Structure of the Health Care System
- Workplace Health and Wellness

Launched in May 2011, CASHC actively engages private and public sector leaders from the health and health care sectors in developing its research agenda. Some 33 companies and organizations have invested in the initiative, providing invaluable financial, leadership, and expert support.

For more information about CASHC, and to sign up to receive notification of new releases, visit the CASHC website at www.conferenceboard.ca/CASHC.

CASHC Member Organizations

Champion Level
Deloitte & Touche LLP
Ontario Ministry of Health and Long-Term Care
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EXECUTIVE SUMMARY

Defining Health and Health Care Sustainability

At a Glance

• Increasing health care costs are a serious threat to health and health care sustainability.

• Other concerns threatening health and health care sustainability are human resource shortages; inequalities; safety of services; poor productivity; and Canadians’ decreasing trust and confidence in, and changing expectations for, the health care system.

• A sustainability framework has been designed that identifies four guiding principles and six key factors deemed essential to support sustainable health and health care.
The sustainability of the health and health care systems is a top priority for Canadians. Increasing health care costs are seen as a serious threat to health and health care sustainability, as total health expenditures have consistently grown faster than the Canadian economy. Among OECD countries, Canada ranks among the highest in per capita spending on health—total spending on health and health care in Canada is about 11 per cent of gross domestic product (GDP) and almost half of provincial budgets.

There are also other concerns about health and health care system sustainability: health human resource shortages, inequalities, safety of services, citizens’ diminishing trust and confidence in the system, poor productivity, and changing societal expectations.

The Canadian Alliance for Sustainable Health Care (CASHC) funded this report to provide a definition of sustainability and to identify a framework to guide the policy work and recommendations that will flow from CASHC’s work in the years ahead. A literature review was the starting point for creating a definition for health and health care sustainability as well as themes (areas of action) for sustainability strategies. Input from 21 interviews with representatives of health care stakeholders—including health care organizations, governments, profit and not-for-profit insurance organizations, life sciences industries, and citizens’ advocacy organizations—was then used both to hone the definition and to design a sustainability framework with four guiding principles and six key factors.

Sustainability is defined as:

Sustainable health and health care is the appropriate balance between the cultural, social, and economic environments designed to meet the health and health care needs of individuals and the population
(from health promotion and disease prevention to restoring health and supporting end of life) and that leads to optimal health and health care outcomes without compromising the outcomes and ability of future generations to meet their own health and health care needs.

Four guiding principles are proposed for a sustainable health and health care system:

- **Accountability for results**—to ensure action on the social, physical, cultural, organizational, economic, political, and environmental factors that affect health care sustainability and to drive improvements in system performance; outcome targets and accountability to be clearly identified at all levels, aligned with accreditation and funding models.

- **Value for money**—to ensure better outcomes for similar investment levels. It prompts the health care system to eliminate waste, search for efficiency gains, stimulate innovation, and improve overall system performance and health outcomes.

- **Fair and timely access**—a high priority for Canadians. Its lack directly affects the health of the population and undermines public confidence in the system. It is important to ensure political support for the level of taxation required to sustain a sound public health care system.

- **Appropriateness**—to ensure the best resources (e.g., financial, human, technological) are used at the best time to deliver the services that will lead to the best health outcomes. It supports optimization of resources and elimination of waste.

Six key factors are deemed essential to support sustainable health and health care:

- **Effective disease prevention and health promotion** (to affect the demand for health care):
  - better control of chronic diseases that account for about 42 per cent of direct medical care expenditures;
  - prevention and management of risk factors: personal interventions (regarding smoking, unhealthy diets) and policy interventions to change the way people view their health;
• **Effective health and health care systems** (real and organized with clear goals):
  – 20 to 40 per cent of resources wasted due to operational and clinical inefficiencies;
  – greater use of telecommunication and information technologies (such as electronic medical records [EMRs]);
  – focus on value-generation and evidence-based care, rather than cost containment;

• **Funding models that drive desired behavioural change** (to align incentives with system goals):
  – Canada has little to show for the increases in health expenditures;
  – cost savings possible through improvements in quality;
  – possibility of competition between public and private health care providers, based on patient outcomes;

• **Leveraging innovation and innovative technologies** (to support productivity and quality improvement):
  – Canadians’ health care, life expectancy, and productivity improved by innovation;
  – Canada a slow adopter (e.g., EMRs) and at the bottom of leading OECD countries in this regard;
  – strategies needed to strengthen innovation understanding, know-how, and capabilities in health care;

• **Optimal development, alignment, and support of human resources** (both formal and informal workforce):
  – current and projected shortages of health human resources;
  – more extended scopes of practice to be investigated;
  – use of interdisciplinary collaboration and multidisciplinary teams;
  – development of framework guidelines for talent management, and leadership and ethics;
  – informal caregivers to be supported and encouraged;

• **Strategic alignment with determinants of health** (to mobilize and coordinate action across sectors that determine population health status):
  – population health greatly affected by social, economic, and physical environments;
– great potential for return-on-investment of health and economic development policies targeting early childhood;
– environmental protection important for health care sustainability.

Transforming the health and health care system will require a multidisciplinary approach with representation from both public and private sectors: government leaders, private business, health care providers, health care organizations, patient advocacy groups, and with citizens through public consultation processes.

The way forward in finding solutions to sustainability is a long and complex journey but, as the Health Council of Canada indicated, “a public health care system is based on choice. Ultimately, the system is as sustainable as the public and politicians think it should and can be.”

1 Health Council of Canada, *Sustainability in Public Health Care: What Does It Mean?*
CHAPTER 1

Introduction

Chapter Summary

- Increasing health care costs are a serious threat to health care and health care sustainability.

- Other concerns are shortages of health human resources, inequalities, safety of services delivered, Canadians’ decreasing trust and confidence in the health care system, poor productivity of health care providers, and Canadians’ changing expectations regarding health care.

- Input from interviews with health care stakeholders was used to design a sustainability framework that identifies four guiding principles and six key factors deemed essential to support sustainable health and health care.
The sustainability of the health and health care systems is a top priority for Canadians. Increasing health care costs are seen as a serious threat to health and health care sustainability, given that total health expenditures have consistently grown faster than the Canadian economy. Among OECD countries, Canada ranks among the highest in per capita spending on health care. Total spending on health and health care in Canada is about 11 per cent of gross domestic product (GDP) and health care budgets are taking up almost half of provincial budgets. Private payments for health services have increased at about the same pace as public costs, maintaining the system’s traditional 70/30 split between public and private funding.

Financial sustainability is not the only threat to health and health care sustainability. Concerns about health human resource shortages, inequalities, safety of services, citizens’ diminishing trust and confidence in the system, poor productivity of health care services, and changing societal expectations all affect the sustainability of the Canadian health and health care systems.

The Canadian Alliance for Sustainable Health Care (CASHC) was launched in 2011. It aims to improve understanding of the conditions under which Canada’s health and health care systems can be sustained and to help build a common vision of sustainability in these areas. The goal of this report is to provide a definition of sustainability and to identify a framework to guide the policy work and recommendations that will flow from CASHC’s work in the years ahead.
Methodology

An extensive literature and document review was conducted to identify how various countries were approaching sustainability in health care—how they defined it and which measures they implemented to support program sustainability. This literature review was expanded outside of health and health care to identify the main traits of “sustainability” across different industries. Findings were organized by themes to group similar ideas.

This literature review helped in creating a definition for health and health care sustainability. As well, it identifies nine themes recognized as areas of action when designing and implementing health and health care sustainability strategies in Canada and other leading OECD countries. The definition and themes were integrated in an interview questionnaire.

Findings of the literature review were tested and validated through 21 confidential interviews with representatives from health care organizations, governments, profit and not-for-profit insurance organizations, life sciences industries, health foundations, citizens’ advocacy organizations, and other industries (including banking and food). (See Appendix B for a complete list of interviewees.) These organizations are all members of the Canadian Alliance for Sustainable Health Care. In addition to collecting their views on the themes and the suggested definition, interviewers also gathered the input from interviewees on key strategies needed in Canada’s health and health care transformation agenda. The interview guide (Appendix C) was created and shared in advance with interviewers to ensure a consistent approach. Interviews were conducted by telephone and lasted up to 45 minutes. Quotes from these interviews can be found in text boxes throughout this report.

Results from these interviews were analyzed and aggregated and then used to design a sustainability framework that forms the basis of this report. The framework identifies a set of principles and six key factors that are thought essential to support sustainable health and health care. The framework is complemented by an analysis of interviewees’
perspectives on key barriers to Canada’s health and health care transformation agenda, as well as thoughts on the stakeholder groups that should lead this transformation.

An advisory committee made up of CASHC members and other health policy experts was formed at the beginning of this project to provide guidance on project objectives. This committee also reviewed preliminary findings, the interview guide, and a draft of this report. Other revisions to the draft report were provided by senior Conference Board experts.
CHAPTER 2

Sustainability Defined

Chapter Summary

- Sustainability generally involves a balance of cultural, social, economic, and environmental factors that enable activities to continue indefinitely into the future.

- Health care sustainability, often linked to affordability, now includes discussions of operational issues and the principles and values underpinning Canada’s health system.

- It is also influenced by politics and by political decisions regarding allocation of resources.

- The focus of health care policy should be on sustaining health system performance within current and future financial constraints—it must not compromise the outcomes and ability of future generations to meet their own health and health care needs.
Sustainability is a concept that has proven useful across a range of different industries. It generally involves a balance of cultural, social, economic, and environmental factors that enable activities to continue indefinitely into the future. Yet, despite its popularity as a buzzword, there is no clear definition of health care sustainability. What it means, what its goals should be, and how these goals are to be achieved are still vague and open for interpretation.

Conversations about health care sustainability are often linked to affordability—how spending growth matches economic growth. In other words, are we generating enough revenue to pay for the health care services we are providing? This is a valid question, particularly because the growth of health care expenditures has outpaced the rate of economic growth in Canada over the last decade. Health care budgets are making up an increasing share (now close to half) of provincial government budgets. Governments have implemented measures with some success to reduce their program spending, or at least its rate of growth. But even these efforts have been challenging due to the increased demand for health care services because of an increase in chronic diseases and an aging population. This has raised concerns about health care crowding out other important societal needs like education, social programs, and infrastructure. Why is this a concern? Because these programs are strong determinants of health. It has been documented that social and economic programs like education, early childhood development, employment, housing, income and social status, and social support networks determine about half of the health outcomes of the population (the estimate for health care is about 25 per cent).¹

¹ Standing Senate Committee on Social Affairs, Science and Technology, A Healthy Productive Canada.
This reality has prompted governments to examine more closely, and experiment with, approaches that have the potential to reduce health care spending. Some examples include strategies to better manage the supply for health care services (e.g., greater emphasis on primary care in all provinces); eliminating inefficiencies, unsafe practices, and waste (e.g., Saskatchewan is implementing a province-wide lean approach); funding mechanisms to eliminate perverse incentives (e.g., capitation models—rather than fee-for-service—for primary care services); and enhancing the productivity and effectiveness of health care workers (e.g., introduction of quality-based funding in Ontario). These approaches are promising and have started to have an impact but their use is not yet widespread.

Notwithstanding the lack of a widely accepted definition of health care sustainability, one thing is clear: discussions around sustainability that often start with fiscal and economic matters have moved beyond those factors to include both key operational issues and the principles and values that are the foundation of Canada's health system.\(^2\) This shift is important because although financial sustainability matters, it is not the main policy objective. Rather, the focus of policy should be on sustaining the performance of the health system within current and future fiscal constraints.

Informant interviews identified four essential aspects of a comprehensive definition:

- ensuring the definition is both a vision statement and a call for action;
- going beyond sickness to incorporate health promotion and disease prevention;
- taking a system-wide perspective;
- including optimal and desired outcomes.

Based on the literature review and the feedback obtained from interviews, the following definition is proposed:

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\(^2\) This comment is consistent with the findings of a panel discussion in 2008. (See Health Council of Canada, *Sustainability in Public Health Care: What Does It Mean?*)
Sustainable health and health care is the appropriate balance between the cultural, social, and economic environments designed to meet the health and health care needs of individuals and the population (from health promotion and disease prevention to restoring health and supporting end of life). That leads to optimal health and health care outcomes without compromising the outcomes and ability of future generations to meet their own health and health care needs.\(^3\)

This definition implies the need for a complex multi-stakeholder system that has the long-term capacity to mobilize and allocate resources in ways that meet the health needs of the population today and also contribute to maintaining a healthy and productive population in the future.

The definition also acknowledges that health care sustainability is influenced by politics, as political decisions made around fiscal constraints determine budgets, priorities, and allocations. Naturally, this involves notions of how much people are willing to pay (individually and collectively) to sustain health care. It also recognizes that political decisions and societal choices can change at any time as cultural, social, environmental, and economic conditions evolve.

\(^3\) Based on the Brundtland Report that was completed in 1987 for the United Nations. The original definition of sustainable development was “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”
CHAPTER 3
Framework for Health and Health Care Sustainability

Chapter Summary

- Sustainability is complex and requires much more than fiscal restraint—it requires a multi-faceted, systemic approach.

- Four guiding principles for a sustainable health and health care system are proposed: accountability for results; value for money; fair and timely access; and appropriateness.

- Six key factors for a sustainability framework are outlined:
  - effective disease prevention and health promotion
  - effective health and health care systems
  - funding models that drive desired behavioural changes
  - leveraging innovation and innovative technologies
  - optimal development, alignment, and support of human resources
  - strategic alignment with determinants of health
As discussed and defined in the previous chapter, sustainability involves creating and managing a health and health care system that meets the needs of, and achieves optimal outcomes for, individuals and populations without compromising future generations. Therefore, sustainability is more about improvement and innovation than the status quo. It requires flexibility and creativity to adapt to changes in population demand as well as the political, economic, and societal environments. It also requires evaluation mechanisms to ensure that the system is in tune with and adapts to new realities. Sustainability is complex and requires much more than fiscal restraint—it requires a multi-faceted, systemic approach.

If we agree that a sustainable health and health care system (as defined in this report) is a worthwhile goal, what would be the principles, processes, and structures that decision-makers would have to consider when making decisions to underpin sustainability? This report intends to help this process by providing a framework to understand and act toward sustainability. This framework proposes the following:

- a set of principles that offer direction and underline the expectations of Canada’s health care system;
- six key factors thought to be essential to support sustainable health and health care.

**Guiding Principles**

Four guiding principles are proposed to support policy discussions and decision-making and to steer initiatives, strategies, and plans that would contribute to health care sustainability:
• **Accountability for results:** This principle is essential to ensure action on the social, physical, cultural, organizational, economic, political, and environmental factors that affect health care sustainability and to drive improvements in system performance. Outcome targets need to be clearly identified and accountability must be in place at all levels and aligned with accreditation and funding models.

• **Value for money:** This principle ensures that better outcomes are attained for similar investment levels. It prompts the health care system to eliminate waste, search for efficiency gains, stimulate innovation, and improve overall system performance and health outcomes.

• **Fair and timely access:** This principle is a high priority for Canadians. The lack of fair and timely access directly affects the health of the population and undermines public confidence in the system. Adopting fair and timely access as a principle to guide decision-making is important to ensure political support for the level of taxation required to sustain a sound public health care system.

• **Appropriateness:** This principle ensures that the best resources (e.g., financial, human, technological) are used at the best time to deliver the services that will lead to the best health outcomes. It supports optimization of resources and elimination of waste.

### Key Factors for Health and Health Care Sustainability

Six key factors are identified in this framework as essential to support sustainable health and health care:

• **Effective disease prevention and health promotion:** This affects demand for health care services.

• **Effective health and health care systems:** These create a real, organized, effective, and efficient “system” and clarify system goals.

• **Funding models that drive desired behavioural change:** These align incentives and motivations for change with system goals.

• **Leveraging innovation and innovative technologies:** This supports productivity and quality improvement.
• **Optimal development, alignment, and support of human resources:** These develop, nurture, and protect the formal and informal workforce.

• **Strategic alignment with determinants of health:** This mobilizes and coordinates action across sectors that determine population health status in order to affect demand for health and health care services.

Exhibit 1 is a graphical representation of how these guiding principles and key factors relate to each other and to overall health and health care sustainability. Each one of these is explained in detail in the next section.

The guiding principles and supporting factors in this sustainability model are not new for Canada. The need to act on all of them has already been suggested in previous policy reports, including previous research by The Conference Board of Canada. However, their uptake has been piecemeal and uncoordinated and progress has been uneven.

**Exhibit 1**

**Framework for Sustainable Health and Health Care**

Source: The Conference Board of Canada.
Canada has lacked a national health care sustainability policy that goes beyond financial sustainability aspects to reflect the values and expectations of Canadians and their relation with optimal health and health care system management. Such a policy would be a valuable tool for guiding provincial health care sustainability efforts. The proposed framework may support this endeavour.

During interviews, stakeholders were asked to validate, comment on, and rank the order of importance of the elements making up this health care sustainability framework. Table 1 presents their rankings and shows the top three thought to be most important in achieving health and health care sustainability in Canada. These three elements—tied for first place—were effective disease prevention and health promotion, accountability for results, and value for money. The presence of an effective health and health care system was in second place and leveraging innovation and innovative technologies got third ranking.

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<tr>
<td>7</td>
<td>Appropriateness</td>
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Source: The Conference Board of Canada.
All the elements in the proposed sustainability framework describe a systematic approach to sustainable health and health care. But these factors do not stand alone; they are interrelated and should be considered as a whole. Each one of these is discussed in detail below.

Effective Disease Prevention and Health Promotion

There was almost unanimous agreement among interviewees that a healthy population is one of the keys to sustainable health and health care systems. Canadians are living longer than ever. Mortality rates for cancer and chronic diseases have been declining over the past decades, mostly due to prosperity as well as technological advances and better health care. As a result, Canadians gained almost 10 years of life expectancy in the last 40 years. But as people live longer, the prevalence of chronic conditions rises, which is placing an increasing burden on health care systems.

A higher proportion of the population reports having conditions such as cancer, mental illnesses, diabetes, and hypertension. The Canadian Institute for Health Information shows that it is not aging that affects the amount of health care used by seniors, but rather the number of chronic conditions. However, as people age, they are more likely to have chronic diseases. The Health Council of Canada has noted that two out of every five Canadian adults have at least one of the seven most common chronic health conditions and this prevalence increases for those aged 65 and over. (Up to three-quarters of this population group have at least one chronic condition.)

The impact of chronic illnesses on health care costs is staggering: about 42 per cent of direct medical care expenditures and over 65 per cent of indirect costs are due to chronic diseases. When we combine

1 Health Council of Canada, Are Canadians With Chronic Conditions Getting the Support They Need to Manage Their Health?
2 Canadian Institute for Health Information, Seniors and the Health Care System.
3 Michael Mirolla, The Cost of Chronic Disease in Canada.
these expenditures and indirect productivity losses, the estimated total economic burden of chronic disease in Canada is overwhelming. The economic costs of mental health problems alone have been estimated at 2.8 per cent of Canada’s GDP.4

Many reports have highlighted the importance of controlling chronic diseases to better manage health care costs. For example, a 2009 diabetes report shows that reducing incidence through strategies such as reducing obesity in the Canadian population can have a major impact on the costs in the health system. In this report, the Canadian Diabetes Foundation estimates that, in 2010, the economic burden of diabetes was $12.2 billion, measured in inflation-adjusted 2005 dollars. This accounted for 3.5 per cent of public health care spending in Canada.5

The Conference Board of Canada’s report on the Canadian Heart Health Strategy found that Canada would save $5 billion a year if it could achieve the risk factor prevalence targets set out in the strategy.6 TD Economics listed promoting healthier lifestyles as number 1 in its top 10 health reform proposals.7 Yet funding is still not substantial in these areas: public health and primary care remain underfunded across Canada.

Primary health care reform initiatives supported since the 2004 Health Accord have led to some advances in health promotion and prevention, particularly the ones focusing on greater use of interdisciplinary teams and implementation, and the use of electronic medical records (EMRs). The introduction of pay-for-performance to motivate physicians to reach higher immunization and screening targets has also been successful.

However, more needs to be done in the prevention and management of risk factors. Comprehensive and synchronized strategies are needed at national, provincial, regional, and local levels to identify key

4 Mental Health Commission of Canada, Why Investing in Mental Health Will Contribute to Canada’s Economic Prosperity and to the Sustainability of Our Health Care System.
5 Canadian Diabetes Foundation, An Economic Tsunami.
7 TD Bank Financial Group, Charting a Path to Sustainable Health Care in Ontario.
improvement targets, establish a plan for reaching these targets, and set accountability for results. These strategies should be based on evidence and need to balance both population-level interventions and clinical preventive services. Personal interventions aiming at modifying risky behaviours (e.g., smoking, unhealthy diets) as well as non-personal policy interventions that could potentially alter individual behaviours through economic and environmental effects that operate at the societal level should be considered carefully. Other OECD countries are starting to take this direction. For example, the United Kingdom’s (UK) National Health Service (NHS) is beginning to work with patients to cut health care demands by changing how people view their health and by living healthier lifestyles.8

Health promotion and prevention programs in the workplace are an untapped opportunity for Canada. These programs are already in place in some public and private organizations, but they vary significantly in scope and interventions. There is evidence to suggest that these programs can not only have an impact on the health of employees (direct benefit for the health care system) but can also benefit corporations (higher level of engagement and employees’ productivity) and society at large (economic prosperity). Engaging employees in their workplace can lead to longer careers and improved productivity. However, a Canadian study demonstrated that three-quarters of workers feel disengaged at work.9 The World Health Organization estimates that the cost of work-related health problems and associated productivity loss is 4 to 5 per cent of GDP.10

Such programs can yield significant returns. A United Kingdom study showed that, through simulation modelling, a multi-component health promotion intervention program could produce a return on investment

8 EMC2, “A New Era for Healthcare.”
9 Buffett & Company, Research Review: Worksite Health Promotion and Organizational Culture.
10 World Health Organization, WHO Healthy Workplaces Framework and Model.
of 9 to 1 in year one for a 500-employee organization. In 2005, Dietz showed that workplace programs such as substance abuse prevention can show higher costs and utilization in the short term but savings in the long term due to reduced drug and alcohol use. These returns can extend to the health care system when they are included as a component of population-based approaches. Governments should therefore assess opportunities to motivate and reward the implementation and sustainability of these programs.

**Effective Health and Health Care Systems**

Interviewees believed that another key to sustainable health and health care services involved the presence of effective health care systems—designed, organized, and managed to optimize resources, extract the best value, eliminate waste, and maximize outputs and outcomes.

The World Health Organization (WHO) believes that somewhere between 20 and 40 per cent of resources spent on health are wasted due to inefficiencies such as inappropriate hospital admissions and lengths of stay; medical errors; suboptimal quality of care; inappropriate or costly staff mixes; underuse of generic medicines; and higher-than-necessary drug prices. Similar results have been found in the United States. A study concluded that operational waste (where administrative processes appear to add cost without creating value) and clinical waste (where medical care itself is considered inappropriate, e.g., overuse, misuse, or underuse of particular interventions; missed opportunities; and clinical errors) accounted for up to 29 per cent of total health care costs. Results from another study assessing the magnitude of the waste in health care spending are summarized in Exhibit 2.

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11 Knapp, McDaid, and Parsonage, eds., *Mental Health Promotion and Mental Illness Prevention.*

12 Deitz, Cook, and Hersch, “Workplace Health Promotion and Utilization of Health Services.”


14 PricewaterhouseCoopers’ Health Research Institute, *The Price of Excess.*
There are indeed significant opportunities for greater efficiencies in the health care system but, in order to identify where these are and to test the effect of interventions to address them, strong information and communication systems are required. These systems, which include electronic medical records (EMRs), are necessary to implement and manage evidence-based approaches. Despite its importance, Canada is still among the countries with the lowest percentage of physicians using EMRs among developed nations. (See Table 2.)

Interviewees for this report identified greater use of telecommunication and information technologies as having the greatest potential to transform health and health care in Canada. (See “What Are the
Changes That Would Have the Greatest Impact in Transforming Health and Health Care in Canada? They saw the role of these and other innovative technologies in supporting system integration, enhancing quality of services, providing information for stronger population-based approaches, and eliminating waste. But, despite the importance of innovative technologies, their adoption is often slow in Canada.

Internationally, there has been trend in recent years toward replacing the cost-containment philosophy with one of value-generation. This shift is not easy because it entails different approaches and skills, but it helps to maximize the effectiveness of the system rather than undermine it. Another important shift is a greater focus on evidence-based care to ensure appropriate use of resources, including technologies, which have been found to be underused, overused,

<table>
<thead>
<tr>
<th></th>
<th>Use EMR in their practices</th>
<th>Have multifunctional health IT capacity</th>
<th>Routinely receive electronic prompts about potential problems with Rx dose of interaction</th>
<th>Can electronically exchange patient summaries and treat results with doctors outside their practices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Canada</strong></td>
<td>56</td>
<td>10</td>
<td>30</td>
<td>14</td>
</tr>
<tr>
<td><strong>Australia</strong></td>
<td>92</td>
<td>60</td>
<td>88</td>
<td>27</td>
</tr>
<tr>
<td><strong>France</strong></td>
<td>67</td>
<td>6</td>
<td>41</td>
<td>39</td>
</tr>
<tr>
<td><strong>Germany</strong></td>
<td>82</td>
<td>7</td>
<td>26</td>
<td>22</td>
</tr>
<tr>
<td><strong>Netherlands</strong></td>
<td>98</td>
<td>33</td>
<td>93</td>
<td>49</td>
</tr>
<tr>
<td><strong>Norway</strong></td>
<td>98</td>
<td>4</td>
<td>22</td>
<td>45</td>
</tr>
<tr>
<td><strong>New Zealand</strong></td>
<td>97</td>
<td>59</td>
<td>89</td>
<td>55</td>
</tr>
<tr>
<td><strong>Sweden</strong></td>
<td>88</td>
<td>12</td>
<td>70</td>
<td>52</td>
</tr>
<tr>
<td><strong>Switzerland</strong></td>
<td>41</td>
<td>11</td>
<td>25</td>
<td>49</td>
</tr>
<tr>
<td><strong>United Kingdom</strong></td>
<td>97</td>
<td>68</td>
<td>85</td>
<td>38</td>
</tr>
<tr>
<td><strong>United States</strong></td>
<td>69</td>
<td>27</td>
<td>58</td>
<td>37</td>
</tr>
</tbody>
</table>

Source: Schoen and Osborn, 2012 Commonwealth Fund International Survey of Primary Care Doctors.
or misused. For example, the Health Council of Canada indicates that 30 per cent of diagnostic imaging procedures are inappropriate or contribute no useful information. This both leads to waste and raises concerns about the unwarranted exposure to excessive radiation. Similar challenges exist around drug prescriptions.

### What Are the Changes That Would Have the Greatest Impact in Transforming Health and Health Care in Canada?

Interviewees offered a wide range of ideas when asked this question. The top three were the following:

1. greater use of innovative technologies, including those to enable e-health;
2. adoption of new funding models to drive behavioural change;
3. focus on evidence, outcomes, and value-creation.

Source: The Conference Board of Canada, based on interviews for this report.

Transformation of current delivery models and of management practices and approaches is required to focus on patients’ needs and desired outcomes and to produce greater value for money, while effectively managing increasing societal expectations. This transformation will entail a re-engineering of governance models and practices, accountability frameworks, and financing approaches to ensure they work in tandem to reach the identified goals. In other words, it entails substituting a well-functioning “system” for the silos that exist today (across the continuum of care, across diseases, and across departments that control determinants of health).

A report from the Canadian Health Services Research Foundation noted that no significant changes can occur unless a realignment of the health care system is made. Such a transformation is not possible without

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16 Denis and others, Assessing Initiatives to Transform Healthcare Systems.
effective and sustained leadership across the system. Leadership, talent management, and development models need to be aligned with the transformation agenda to reach the goals identified for the health care system. Common policy frameworks need to be considered to achieve some synergies. Otherwise, transformation efforts aiming at greater sustainability will get diluted.

Funding Models That Drive Desired Behavioural Change

The manner in which we fund health care services is another pillar in the proposed health and health care sustainability framework. During interviews, funding models were recognized as essential to achieve health care targets and support sustainability of services. This is because funding models can provide strong motivation for change but, if not used effectively, they can lead to inefficiencies. As mentioned before, increasing health care costs are seen as a serious threat to the financial sustainability of health and health care services, given that the growth in total health expenditures has occurred at a faster rate than the growth rate of the Canadian economy. And this trend will likely continue, given the effect of population aging on both Canada’s economic growth and Canadians’ demand for health services. If health care costs continue to outpace the rate of growth of the economy, ethical discussions around breadth of population coverage, scope of benefits provided, and/or depth of services publicly financed (e.g., implications for co-payments, user charges) would have to take place to sustain the performance of the health care system.

The key question that arises is this: How much Canada should spend on health and health care? Canada is one of the highest spenders on health care across industrialized OECD countries. Total health care spending in Canada in 2013 was projected at $211 billion, or just over 11 per cent of Canada’s GDP. Higher earnings generally translate into more spending, and this is true for individuals and nations. Wealthier countries

17 Canadian Institute for Health Information, National Health Expenditure Trends.
spend more on health care. Canada is a wealthy country, so high health care expenditures are not surprising. However, when Canada is compared with its peer countries, it becomes clear that high health care expenditures have not translated into superior health outcomes. Table 3 shows that Canada is the third-highest spender but its peer countries (excluding the U.S.) have managed to attain better performance most of the time. International comparisons also show that Canada has one of the narrowest scopes of insured services in the world, especially when

Table 3
Health Care Spending and Health Outcomes, 2011 or Most Recent Years

<table>
<thead>
<tr>
<th>Health spending per capita, US$PPP* (country ranking)</th>
<th>Life expectancy at birth</th>
<th>Infant mortality (deaths per 1,000 live births)*</th>
<th>Mortality following a stroke**</th>
<th>Prevalence of diabetes</th>
<th>Patient experience: regular doctor spending enough time with patient in consultation***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada $4,522 (3)</td>
<td>81</td>
<td>4.9</td>
<td>9.7</td>
<td>8.7</td>
<td>80.5</td>
</tr>
<tr>
<td>Australia $3,800 (7)</td>
<td>82</td>
<td>3.8</td>
<td>10</td>
<td>6.8</td>
<td>86.6</td>
</tr>
<tr>
<td>Denmark $4,448 (5)</td>
<td>79.9</td>
<td>3.6</td>
<td>4.1</td>
<td>5.7</td>
<td>-</td>
</tr>
<tr>
<td>Germany $4,495 (4)</td>
<td>80.8</td>
<td>3.6</td>
<td>6.7</td>
<td>5.5</td>
<td>92.5</td>
</tr>
<tr>
<td>Japan $3,213 (9)</td>
<td>82.7</td>
<td>2.3</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Norway $5,669 (1)</td>
<td>81.4</td>
<td>2.4</td>
<td>5.3</td>
<td>4.8</td>
<td>78</td>
</tr>
<tr>
<td>Sweden $3,925 (6)</td>
<td>81.9</td>
<td>2.1</td>
<td>6.4</td>
<td>4.4</td>
<td>74</td>
</tr>
<tr>
<td>Switzerland $5,643 (2)</td>
<td>82.8</td>
<td>3.8</td>
<td>7</td>
<td>6</td>
<td>91.3</td>
</tr>
<tr>
<td>United Kingdom $3,405 (8)</td>
<td>81.1</td>
<td>4.3</td>
<td>10.4</td>
<td>5.4</td>
<td>88.6</td>
</tr>
</tbody>
</table>

*2011 or nearest year  
**2010 or nearest year  
***Case fatality in adults aged 45 and over within 30 days after admission for ischemic stroke; admission based (same hospital); 2011 or nearest year  
Source: OECD, Health at a Glance 2013: OECD Indicators.
compared with the United Kingdom and Australia.\textsuperscript{18} This suggests that how and where the money is being spent is just as important as how much is being spent.

Clearly, more money is not necessarily the answer for the sustainability of Canada's health and health care; greater alignment of funding, quality, and accountability frameworks should be pursued. Funding approaches need to enhance value for money and productivity, and stimulate innovation and better outcomes. For example, it has been recommended to shift away from global funding models used to fund health care organizations toward a wider use of activity-based funding models that compensate for patients treated, services provided, and outcomes. These principles also apply to the way we compensate physicians for their services, a major component of total health care costs. One study showed that fee-for-service physicians who switch to family health groups, which are typically paid through a blended model, increased their output by 11 per cent because of higher patient volumes and more after-hours service.\textsuperscript{19}

Several studies have found that improving quality saves money and that funding models can be used to boost quality of services. There is evidence that several health care systems within the United States have been able to enhance quality and improve the bottom line through financial incentives. Such incentives have led to better preventive care, better management of chronic diseases, greater use of appropriate practices and technologies, and better quality or cost outcomes.\textsuperscript{20} Ontario has followed this path as well and is now placing greater focus on outcomes rather than care processes. For example, its Excellent Care for All Act\textsuperscript{21} is using funding to drive a greater focus on quality improvement processes and better patient outcomes. There is little doubt that demanding higher quality outcomes from public and private health

\textsuperscript{18} The Commonwealth Fund, \textit{International Profiles of Health Care Systems}.
\textsuperscript{19} OMA Human Resources Committee, “OMA Position on Physician Workforce Policy and Planning Revisited.”
\textsuperscript{20} Øvretveit, J. \textit{Does Improving Quality Save Money}?
\textsuperscript{21} Ontario, \textit{Excellent Care for All Act}, 2010.
care providers would support health care sustainability. Competition between public and private health care providers based on patient outcomes under a publicly funded health care system offers potential advantages and should be explored in greater detail.

The scale of private financing of health care services represents both a divisive issue and an opportunity. The public/private mix of health care financing has held steady at a 70/30 split in Canada for some time, with private health insurance and out-of-pocket patient expenditures accounting for most private health care spending in Canada. Private health insurance has become an alternative source of health financing. As governments delist health and health care services (changes have been made to provincial formularies to decrease or stop reimbursement for health services including physiotherapy, optometry, speech therapy, and chiropractic care over the past 15 years), private insurance is left to pick up coverage for those services. However, international experience has shown that greater use of private health insurance results in considerable equity challenges and, in many cases, greater health care expenditures. Nonetheless, opportunities might exist in leveraging private sector resources and partnerships to optimize population health outcomes. Mechanisms such as corporate tax credits, for example, could be used to stimulate greater private sector participation in effective corporate health and wellness and chronic disease management programs.

Addressing current challenges in how we finance health care and the models used to fund health services is essential for health care sustainability. A key factor in addressing these challenges is Canada’s ability to successfully manage public expectations and increasing societal needs and wants for health services. Decisions about which

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22 For example, since 2004, chiropractic services are no longer covered in Ontario. Alberta also delisted these services in 2009. British Columbia has decreased the number of combined visits (for chiropractic, massage therapy, acupuncture, naturopathy, physical therapy, and podiatry) to 10 per year. Manitoba and Saskatchewan set a limit of 12 visits per year. All the other provinces do not reimburse for these services.

23 Colombo and Tapay, Private Health Insurance in OECD Countries.
future health care services can and should be supported by public funding need to be guided by sound, transparent, and inclusive ethical models.

**Leveraging Innovation and Innovative Technologies**

Innovation and innovative technologies constitute the fourth pillar in the proposed health and health care sustainability framework. Innovation does not mean something new; it refers to the execution of new ideas, products, or services that lead to social or economic value. Interviewees rated innovation and the use of innovative technologies very highly, which resulted in their placement among the top three factors to embrace when moving toward a sustainable health and health care system. Greater use of innovation and innovative technologies was also identified as the most important change that could drive health care transformation in Canada. This should not come as a surprise, given that innovation can enhance the efficiency, safety, quality, and productivity of health and health care services.

History has shown that innovation has significantly improved health care, the health of Canadians, and Canada’s productivity. Advancements in health—the product of research and innovation translated into health care services, together with improvements in determinants of health—gave Canadians an impressive gain of 30 years of life over the past century. These gains in average life expectancy represent an additional economic output of trillions of dollars that exceeds health research and health care costs over the same period by orders of magnitude.

For example, improvements in the treatment of cancer and cardiovascular diseases are estimated to bring additional value in the magnitude of billions of dollars to the United States. (See Table 4.)

Another study from the U.K. found that public investments in cardiovascular research conducted from 1975 to 1992 yielded returns of about 39 per cent; in other words, for each £1 invested in public cardiovascular research, the U.K. is earning £0.39 per year.
in perpetuity.24 Highlights of this study are presented in the section below (“Highlights of Medical Research: What’s It Worth?”). These studies demonstrate that, when innovative technologies are effectively and appropriately integrated into health care services, the health care system can create more value than the cost of developing and deploying innovation. People who live longer and healthier lives contribute more to economic output, which expands the revenue base available for health and health care.

### Highlights of Medical Research: What’s It Worth?

From previous evaluation studies and estimates, quality adjusted life years (QALYs) were calculated from a series of 46 combinations of patient groups and specific interventions.

- The estimated value of the QALYs gained from the specific interventions over 1985 to 2005 is £69 billion.
- The best estimate of the total incremental health care costs relating to those gains over the same period is £16 billion.

24 Health Economics Research Group, Office of Health Economics, and RAND Europe, *Medical Research: What’s It Worth?*
• The estimated proportion of this net benefit attributable to U.K. research is 17 per cent.
• The overall best estimate of the health and GDP gains combined from cardiovascular research is an internal rate of return of 39 per cent.

Source: Health Economics Research Group, Office of Health Economics, and RAND Europe, Medical Research: What’s It Worth?

Canada’s health care system, however, has been a slow adopter of innovative health technologies. For example, when compared with other OECD countries, Canada ranks below average on both the availability of CT scanners and MRI equipment. Canada was also ranked at the bottom (13 out of 14 peer countries) in the use of cancer drugs;\(^25\) this low ranking resulted mostly from the low use of cancer drugs launched within the last 10 years. The same study also found low rankings in the use of treatments for acute myocardial infarction (heart attack), osteoporosis, and respiratory distress syndrome. (See Table 5.)

The slow adoption pattern is also present in communication and information technologies that benefit better health care system management. As discussed before, Canada still lags in adopting electronic medical records. Recent advancements have been made, but the rate of adoption is glaringly slow and Canada continues to be at the bottom of leading OECD countries in this regard. The lagging use of sophisticated health information systems in Canada is limiting the capacity of health care professionals and administrators to provide integrated and safer health care services and to measure health care outcomes and improvements over time. A United States study showed that, if electronic health records were implemented fully over a 15-year period, $142 billion could be saved in physician offices and $371 billion in hospitals.\(^26\)

\(^{25}\) Richards, Extent and Causes of International Variations in Drug Usage.

\(^{26}\) Anderson and others, “Health Care Spending and Use of Information Technology in OECD Countries.”
Increases in health care costs and the growing demand for health services have made governments and health care administrators cautious about adopting health innovations. The main concern has been that approval of innovative technologies and increased use of these technologies will lead to an immediate rise in expenditures, while the resulting benefits often accrue elsewhere in the health care system or outside it. By stifling innovation, this approach foregoes future benefits and is counterproductive in the long term.

Research by The Conference Board of Canada has evidenced some of the challenges that surround the implementation of innovation in Canada’s health care. In a recent survey of health care administrators...
across Canada, respondents were almost unanimous in agreeing that innovation is essential for the sustainability of Canada's health care system and for improving organizational performance in the health sector. However, they were much less likely to say that innovation is a recognized priority within their organizations. The survey revealed that there was less clarity around whether mechanisms had been put in place to ensure that innovation goals were being set out, that a proper innovation culture was being nurtured, and that innovation process and structures were being put in place. This gap between aspiration and application cropped up throughout the different sections of the survey in terms of levels of, and the commitment to, innovation in the Canadian health care system.

Procurement practices in Canada have also been identified as contributing to the slow adoption of innovation within health care. Innovation procurement offers the opportunity to generate better value for public health care investment by creating demand for innovation, spurring business investments in research and development (R&D), improving quality of services, and boosting the performance of the health care system. But, although it has been recognized as a powerful policy lever by the OECD, Canada has not embraced it widely. Another Conference Board survey of health care administrators found that, although 60 per cent of respondents agreed that innovative products and services were very important or important in achieving their organization's goals, over half said that procurement approaches in their organization do not support the development and uptake of innovative products and services.

A comprehensive and effective strategy to strengthen the understanding, know-how, and capabilities for innovation within health and health care would contribute to health care sustainability in Canada. Health care stakeholders need to be empowered with knowledge and tools to understand, nurture, and implement innovation and to pursue meaningful

27 Prada and others, Challenging Health Care System Sustainability.
28 Ibid.
collaboration across sectors to derive greater value for money. This requires both new processes and tools and changes in attitudes, culture, and behaviours. These are not easy to achieve and require sustained effort at all levels, but the payoff could be substantial.

Such a strategy would have to strengthen the linkages between health and health care goals, evidence-based health care, and innovative products and services. It should also make clear the importance and the role of different stakeholders within the health enterprise (e.g., those that pay, health care organizations, academia, and industry) in achieving the desired goals. This would set up a stronger course for a health and wealth agenda for Canada. Leading European nations have recognized the benefits that can be reaped if the synergies between health innovation and health care are exploited. In the white paper Together for Health, the European Community agreed that “spending on health is not just a cost, it is an investment. Health expenditure can be seen as an economic burden, but the real costs to society are the direct and indirect costs linked to ill health as well as a lack of sufficient investment in relevant health areas.” The proposed strategy could become a reference framework to support sound policies that would contribute to achieving Canada’s health and health care goals while also reinforcing its knowledge-based economy.

**Optimal Development, Alignment, and Support of Human Resources**

The fifth pillar in the proposed health and health care sustainability framework is the optimal development, alignment, and support of human resources. The sustainability of health care services depends on the availability of the necessary health human resources: health professionals and other caregivers, support staff, managers and leaders who run the system, and researchers to study and document data and information so the system continues to improve and innovate. Health human resources (HHRs) have been a major focus for Canadian

governments in the past 10 years. In the 2003–04 First Minister’s Health Accord, significant funding was committed specifically to improving pan-Canadian HHRs. However, shortages of health care professionals still exist and these jeopardize the ability of the system to provide the services Canadians need. These shortages are likely to get worse as demographic trends, combined with terms of employment for many health sector employees, lead to a wave of retirements just as demand for health services is increasing.

Innovative delivery models have been piloted across the country in an effort to address shortages. Some of these models have resulted in new professions and roles being defined. There are now more than 30 health professions regulated by various provincial/territorial governments, with a wide variation in scopes of practice and competencies. Physician assistants and nurse practitioners are now more common in Canada’s health care system with the latter having assumed a variety of roles across the continuum of care. Also, new scopes of practice for registered nurses and pharmacists have been put in place in some jurisdictions. For example, Ontario now allows nurses to undertake procedures such as flexible sigmoidoscopies, although the cost-effectiveness of this development is still in question.30

These advances are encouraging. However, more efforts are needed to nurture stronger interdisciplinary collaboration across the various disciplines and to facilitate integration of the health care services provided by different professionals. This requires changes in behaviours, and a broader awareness of other health professionals’ scopes of practice. Stronger focus on training and development to leverage the skills and enhance the productivity of HHRs will directly support health care sustainability. The primary care experience with multidisciplinary teams in Ontario and Alberta has demonstrated that advances can be made relatively quickly when they are properly supported by strong leadership and by effective policies and information and communication.

30 Williams and others, “Cost Effectiveness of Nurse Delivered Endoscopy.”

Source: Key informant interviews for this report.
technologies (particularly, the use of EMRs). In these settings, scopes of practice have been extended to enhance access to services, and roles have been optimized to improve quality of care.

Canada’s health and health care would benefit from national guidelines around two distinctive and valuable frameworks:

- **Talent management frameworks** help align strategy and processes with organizational need. This approach would support the (1) acquiring, (2) engaging and retaining, (3) leading and managing performance of, (4) rewarding, and (5) learning and development of health professionals. These frameworks would also help to understand and address the high levels of absenteeism among health professionals, particularly registered nurses, which have been found to be 58 per cent higher than the average full-time Canadian worker.31

- **Leadership and ethics frameworks** provide clinicians and managers with the right tools to address the ethical dilemmas introduced by new public accountability and financial sustainability challenges. Such frameworks are fundamental to assess trade-offs and to provide a process to facilitate the difficult decision-making in today’s health and health care environments. The Canadian College of Health Leaders has developed LEADS in a Caring Environment Capabilities Framework,32 a leadership framework that outlines core competencies required to effectively make clinical and management decisions and that has ethical behaviours embedded within it. Various jurisdictions in Canada have embraced and are promoting this framework.

The role of family caregivers is prominent in Canada’s health care, particularly in recent times when care is shifting from institutions to the community. But, despite their importance, few organizational and policy tools exist to support and encourage caregivers. An increasing proportion of Canadians report that they provide care at home for a loved one, which translates into millions of care hours every year.

32 Canadian College of Health Leaders, *LEADS in a Caring Environment Capabilities Framework.*
For example, a 2004 survey revealed that Canadians estimated that 54 hours per week would be needed to take care of a dying loved one in their homes.33 This raises the need to coordinate health care policies with human resources policies to ensure family members are not left unprotected financially while they provide personal and medical care (which includes administration of medications and injections) and homemaking services. Some organizations have included in their employees’ benefits package paid leave for employees to care for family members, but more could be done.

Volunteers and non-governmental and charitable organizations also play a key role in health care sustainability as they directly support the operations of health care facilities, raise funds, and provide millions of hours of health and personal care. A comprehensive HHR strategy to support health care sustainability has to include these non-traditional health care providers fully in the system.

**Strategic Alignment With Determinants of Health**

The last pillar in the proposed health and health care sustainability framework involves strategic alignment with determinants of health. As mentioned before, social, economic, and physical environments have a great impact on population health. These determinants are even more important than access to, and use of, health care services because they create the conditions under which people get ill and require medical care. Addressing these determinants will both add to economic output and reduce demand for health care services.

Effective cross-sector health policies on food, housing, transportation, environment, national security, education, economy, and other key areas help to manage risk and reduce social inequalities. Countries like Finland combine health and social policy to develop strategies around sustainability. Some of the policy pillars selected by Finland include a strong foundation for welfare; longer working careers through well-being

33 Ipsos-Reid, *Hospice Palliative Care Study*, 31.
We must move to getting at the causes of illnesses.

Source: Key informant interviews for this report.

at work; balancing the various areas of life; and a healthy and safe living environment.\textsuperscript{34} The United Kingdom’s National Health Services has a new mental health strategy that is using a cross-sectoral approach and economic simulation of health interventions to document the impact of the strategy.\textsuperscript{35} This strategy has found that some of the highest total returns on investment for mental health promotion were achieved by interventions delivered outside the health system, such as school-based programs to prevent conduct disorders or reduce bullying.\textsuperscript{36}

From a policy perspective, early childhood is perhaps the age that offers greater potential for returns in terms of enhancing health and personal and economic development. According to the World Health Organization, “societies that invest in children and families in the early years—whether rich or poor—have the most literate and numerate populations. These are also the societies that have the best health status and lowest levels of health inequality in the world.”\textsuperscript{37} Current studies are generating maps that demonstrate the linkages between vulnerability patterns and socio-economic conditions for neighbourhoods and school districts in some Canadian jurisdictions. These studies bring significant opportunities to influence and improve health outcomes later in adulthood. Thus they should be considered part of comprehensive efforts toward health and health care sustainability.

Environmental protection is another important policy area that has received attention from leading OECD countries and can be linked to health care sustainability. Air pollution causes or exacerbates many diseases including chronic bronchitis, asthma, and coronary diseases and results in premature deaths from lung cancer and cardiovascular and respiratory illnesses. All of these contribute to increased demand for health care services and economic burden on the health care system. The Ontario Medical Association estimated in 2005 that air pollution cost

\textsuperscript{34} Finland Ministry of Social Affairs and Health, \textit{Socially Sustainable Finland 2020}.
\textsuperscript{35} United Kingdom, Department of Health, \textit{No Health Without Mental Health}.
\textsuperscript{36} Knapp, McDaid, and Parsonage, eds., \textit{Mental Health Promotion and Mental Illness Prevention}.
Ontario more than $1 billion a year from hospital admissions, emergency room visits, and absenteeism.  

A Health Canada study that studied eight large cities estimated that over 5,900 Canadians die prematurely each year due to air pollution. Of note, a study in British Columbia found that small environmental improvements can have a significant impact on health outcomes and their associated dollar value (a 1 percent reduction in air pollutants was estimated to produce $29 million in annual savings in the region).

Given that health care is a very energy-intensive industry—in the U.S., the health care sector is responsible for almost a tenth of the country’s CO2 emissions—the health care system should contribute to the solution of this environmental challenge. Leading countries are setting demands for the sector to reduce its emissions. Hospitals, which consume almost twice the energy per square foot as traditional office spaces, have seen their energy costs in the United States almost double over the past eight years. Therefore, reducing CO2 emissions by health care institutions would not only contribute to decreasing air pollution (and its morbidity and mortality implications) but also should lead to significant direct operational savings.

**Transformation Agenda: Toward Sustainable Health and Health Care**

There was overall consensus during the interviews that a successful transformation process will likely require a multidisciplinary approach where public and private sectors are both well represented. Some interviewees favoured the idea of a coalition with representation from stakeholders in key areas. The chart below summarizes the opinions of interviewees regarding the key groups needed to lead the transformation agenda.

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38 Ontario Medical Association, *The Illness Costs of Air Pollution.*

39 Canada, Health Canada, *Air Pollution and Health.*


Government leaders were thought to be important supporters or facilitators, given their capacity to influence key levers like legislation, regulation, policy, and funding. However, some interviewees expressed concerns about the political fortitude of governments to take on this challenge. Private businesses were seen as essential participants, given their importance to the Canadian economy and the linkages between health and workforce productivity. Some interviewees saw private sector stakeholders as an untapped source of ideas and experience.

Regarding health care providers, there was overall agreement that these stakeholders need to be engaged from the onset, given their capacity to effect or stifle change. However, it was mentioned that their involvement should be structured and linked to evidence-based pathways in order to collect their input while discouraging expressions of vested interest.

Many believed that, given the importance of health and health care for Canadians, citizens should be encouraged and given the opportunity to participate. One interviewee offered the notion of a plebiscite or other public-wide consultation processes to determine priorities, needs, and directions. Other key stakeholders that were mentioned included health care organizations (across the continuum of care) and their associations, patient advocacy groups, and the Health Council of Canada (which recently ceased to exist).

Chart 1
Stakeholder Groups That Should be Leading Health Care Transformation in Canada
(per cent)

Source: The Conference Board of Canada.
Achieving sustainable health and health care systems in Canada requires a supportive and stable political environment and collaborative partnerships across jurisdictions. Major stakeholder groups need to come together around solutions and set aside any advocacy for their own vested interests, which tend to resist change. This was considered the most frequent barrier to change by interviewees for this research. Other barriers that were noted included dysfunctional jurisdictional collaboration, politics, and limited and ineffective citizen involvement. Regarding this last point, it was believed that there is an absence of real debate about the challenges faced by health and health care systems and that more effort is required to engage citizens in an objective and informed dialogue. As one interviewee pointed out, “uninformed consumers make poor decisions. Better-informed consumers lead to better systems.”
CHAPTER 4

Conclusion

Chapter Summary

• Financial sustainability is a priority, but so too are the principles and values underpinning Canada’s health system as well as operational issues.

• A multi-faceted and systemic approach to sustainability is required—a careful balancing of priorities, strategies, plans, and initiatives in social, clinical, cultural, organizational, economic, political, and environmental domains.

• These measures need systematic implementation across the continuum of care, across diseases, and across government departments that control determinants of health.

• Transparent, clear, unbiased, and inclusive discussions about options and support for difficult decisions are needed. Public involvement is necessary to ensure the resulting health care system is fair, ethical, and meets Canadians’ needs and expectations.
There is broad agreement in Canada that we need to combine resources, creativity, and efforts to successfully meet our health care needs and enhance health outcomes for individuals and populations. But there is also broad agreement that this can’t be done to the detriment of future health care services and the health outcomes of our children and grandchildren. Financial sustainability is a priority, but so are key operational issues and the principles and values that form the foundation of Canada’s health system. The focus of sustainability policies needs to go beyond fiscal restraint to improving the performance of the health system within current and future fiscal boundaries. This is not an easy endeavour because sustainability is complex. It requires careful balancing of priorities, strategies, plans, and initiatives across social, clinical, cultural, organizational, economic, political, and environmental domains. It also requires flexibility and creativity to adapt to changes in population demands. In essence, it requires a multi-faceted, systemic approach.

This report provides a framework to think about, understand, and act toward sustainability. It proposes a set of principles (accountability for results, value for money, fair and timely access, and appropriateness) as well as six key factors that, together, offer supply-and-demand solutions that need to be considered as we move toward ensuring sustainable health and health care. These factors included the following:

• effective disease prevention and health promotion;
Defining Health and Health Care Sustainability

• design and implementation of a real “system” and its effective management to eliminate waste;
• funding models that drive desired behavioural change;
• innovation and innovative technologies to support productivity and quality improvement;
• policies and strategies to develop, support, and align formal and informal health workforce;
• strategic alignment with determinants of health.

These sustainability measures are hardly new. However, the innovation identified here would come from their systemic implementation across the continuum of care, across diseases, and across departments that control determinants of health to constitute a well-functioning “system.” Canada is in the midst of a health and health care transformation, but this process requires transparent, clear, unbiased, and inclusive dialogue to discuss options and to support the difficult decisions that are required. Greater transparency and public involvement in decision-making is required to ensure the establishment of system goals and resource allocation processes and practices that are fair, ethical, and best meet Canadians’ needs and expectations.

The way forward in finding solutions to sustainability is a long and complex journey but, as the Health Council of Canada indicated,

“A public health care system is based on choice. Ultimately, the system is as sustainable as the public and politicians think it should and can be.”¹

¹ Health Council of Canada, Sustainability in Public Health Care: What Does It Mean?
APPENDIX A

Key Informant Interviews

Canada’s Research-Based Pharmaceutical Companies (Rx&D)
Mark Ferdinand, Vice-President, Policy Research and Analysis

Canadian Association for Retired Persons (CARP)
Susan Eng, Vice-President, Advocacy

Canadian Blood Services
Dr. Graham D. Sher, Chief Executive Officer

Credit Valley Hospital/Trillium Health Centre
Michelle E. DiEmanuele, President and Chief Executive Officer

Deloitte
Lisa Purdy, Partner
Paul MacMillan, National Public Sector Leader

Great West Life
David Johnston, Executive Vice-President, Group

Green Shield Canada
David Willows, Vice-President, Strategic Market Solutions

Johnson & Johnson Medical Companies
Trisha Hutzul, Medical Affairs Director

LifeLabs Inc.
Monette Greenway, Vice-President, Business Development and Ontario Government Relations
Loblaw Companies Limited  
Bob Chant, Vice-President, Corporate Affairs  
Michael Lovsin, Senior Vice-President, Health and Wellness  

Norlien Foundation  
Paula Tyler, President  

Ontario Ministry of Health and Long-Term Care  
Vasanthi Srinivasan, Assistant Deputy Minister, Health System Strategy Division  
Cynthia Perry, Acting Manager, Planning Unit; Planning, Research, and Analysis Branch  

Pfizer Canada  
Gord Croucher, Associate Director, Patient Access  

Provincial Health Services Authority (B.C.)  
Brian Schmidt, Senior Vice-President, Provincial Services, Population and Public Health  

Scotiabank  
Warren Jestin, Senior Vice-President and Chief Economist  

Sun Life Financial  
Alan R. Stewart, Assistant Vice-President and Corporate Medical Director  

TD Bank Group  
Derek Burleton, Vice-President and Chief Economist  

The Co-operators Group Limited  
Garry Herback, Senior Vice-President, Insurance  

VON Canada  
Judith Shamian, President and Chief Executive Officer  

Workplace Safety and Insurance Board of Ontario  
Susanna Zagar, Chief Strategy Officer  

Xerox Canada Ltd.  
Kaveh Razzaghi, Managing Principal, Health Centre
APPENDIX B

Interview Guide

After a national and international literature review, the following elements have been identified as key to help achieve a sustainable health care system in Canada:

- affordable financial resources and investments
- strong disease prevention and health promotion programs
- universal and timely access
- strong health and wellness programs in the workplace
- optimal development and alignment of human resources
- focus on quality and value for money
- effective system management approaches and processes
- focus on leveraging innovation and innovative technologies
- effective government policies outside of health care system protecting the health of Canadians

1. Based on the list presented above:
   1.1 Could you identify any other key element for health and health care sustainability that is not included in that list?
   1.2 In your opinion, is there any element on that list that is not relevant?
   1.3 What would you say are the top three most important ones, without which the health care system could not become sustainable?

2. Based on the literature review, we have drafted the following definition of sustainable health and health care: Sustainable health and health care entails a patient and family-centred system that meets the needs of the present without compromising the ability of future generations to meet their own needs. Do you think this definition is comprehensive? In your opinion, does it meet the needs of Canadians?
3. What are the three changes most urgently needed in order to achieve health care sustainability? What are the three changes that would have the greatest impact?

4. In your opinion, which key stakeholder groups should lead the transformation agenda? Why?

5. What do you think might be the biggest impediments to health and health care sustainability in Canada?
APPENDIX C

Bibliography


Canadian College of Health Leaders. LEADS in a Caring Environment Capabilities Framework. Ottawa: CCHL, [n.d.].


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