The Planning Landscape: Considerations in Setting Strategic Objectives for Physiotherapy in Canada

February 2017
The CPA strategic planning landscape document provides an overview of strategic issues affecting physiotherapy across Canada, and in-depth analysis throughout the included documents. The document includes reprinted information from CPA publications, commissioned work such as the Conference Board of Canada studies on the physiotherapy labour force, and other information such as the APTA supply and demand model.

There are three categories within the landscape document:

- Physiotherapy Practice
- Healthcare Policy
- Labour Market

In the Practice section, we examine perspectives on the future of practice and leadership, along with information from recent analysis of practice insurance claims. This provides insight into emerging practice risks and trends in regulatory prosecution.

In the Healthcare Policy section, key priorities of the federal government are identified in the Health Minister’s mandate letter. The 2015 report of the Advisory Panel on Healthcare Innovation is the most current national effort to identify opportunities for improvement in population health, healthcare services and fiscal management of healthcare costs in the face of an ageing population. We have included the executive summary, as well as the full chapter on ‘Reimagining the Healthcare Workforce’. CPA and the Branches’ policy priorities and advocacy efforts are presented in the included charts.

In the Labour Market section, the Conference Board of Canada presents an analysis of the current physiotherapy labour force, commissioned by the CPA. Also included are the most recent statistics from the Canadian Institute for Health Information on the size of the physiotherapy workforce in Canada, and an article from The Economist magazine identifying strong labour demand for physiotherapy assistants and physiotherapists in the coming years.

Taken together these documents present a concise view of several key issues that require consideration as the profession identifies priorities and objectives for the next five to ten years.
Strategic Considerations

Section 1: Practice

Influencing the potential futures of physiotherapy in Canada
*Dr. Kathleen E. Norman, Queen’s University*

Leading Change: Why Not Physiotherapy?
*Fred Horne, CPA Board Director*

No Room for Complacency
*Michael Brennan, CPA Chief Executive Officer*
In considering the future of physiotherapy, let’s start from the perspective that many futures are possible. It’s a principle of strategic foresight thinking that we can consider a number of plausible futures and identify factors that are driving us toward some of the futures, or are making others of them less likely to occur. We can identify the risks inherent in trying to steer toward, or away from, some of the possible futures. We can also identify the opportunities we would want to realize in various futures. In foresight, the aim is not to predict a single future with a margin of error — like weather forecasting — but rather to be aware of the trends and drivers toward particular futures. We can then prepare ourselves to guide the drivers we can influence, and to be resilient in the face of the drivers that might otherwise catch us unawares.

In a recent project focused on environmental scanning for physiotherapy in Ontario, we identified four major themes for the trends and drivers relevant to the present and future of physiotherapy. Although our interviewees were from Ontario, the documents and online sources we consulted were from all over Canada and beyond. Consequently, we think all four themes have broad applicability to the future of physiotherapy in Canada.

Within the first theme — The Patient — the key trends identified were about changing demography and the shift toward less emphasis on “sick care” and more on wellness and health promotion. As physiotherapists, we have likely all heard the dire predictions about the increased demand for health services created by aging baby boomers, and perhaps used these predictions to advocate for a future in which physiotherapists reduce costs by addressing this demand. However, we would do well to consider another possible future by monitoring the advice of those who criticize ‘apocalyptic demography’ and the ‘imaginary time bomb’.

Demographers and gerontologists have pointed to multiple reasons why population ageing may not be the crisis predicted by others. As a profession, we can prepare for that possible future, but by no means should we ignore predictions that other futures are possible. Moreover, we need to recognize that other factors beyond age affect people’s health and need for health support, poverty being one of the most evident. As I heard a community member remark in a meeting to plan health services: “50 years old is only the new 40 if you’re well-off; if you’re poor, 50 is the new 65.”

The second theme we identified – The Practice – was about trends in the diversity of who physiotherapists interact with as colleagues and co-workers. As I reflect on the trends identified within this theme, I see contrasts in whether things have changed in recent decades. On the one hand, I recall that, when I was a student physiotherapist 30 years ago, chiropractors were seen as rivals at best and enemies at worst. Currently, many physiotherapists work together with chiropractors under the same roof. On the other hand, a study published almost 20 years ago about Canada-wide utilization of physiotherapy support personnel reported that many facilities expressed concerns that inadequately trained or supervised support personnel would potentially compromise patient care; we hear many of the same concerns expressed in our current reality. The contrasts in these trends illustrate how challenging it is to predict future states from past patterns.

The third theme we identified was Technology. Changes in technology are drivers in every aspect of our interconnected world. It is exciting to think of the increasing impact of technologies that help us deliver the physical component of physical therapy. We can think of robotic exoskeleton devices that provide us with reliable, quick and thorough assessments of motor function; electrical stimulation devices that deliver more targeted stimulation types or patterns; or virtual reality systems that enable patients to have more engaging practice of therapy tasks. However, where technology is changing communication and knowledge dissemination, the impacts are more complex. As practitioners, we can take advantage of the increasing openness of the world’s knowledge, but health care practitioners and systems have sometimes been slow or inconsistent in adapting to what these changes mean for patient care.

As I write this, the CBC is running a story about how people’s mobile phones may run apps that enable detailed tracking of data relevant to a patient’s own health, but the patient’s doctor may be able to acquire only a rudimentary snapshot of the collected data. The news story highlighted the potential considerations of confidentiality, timeliness, security and accuracy of the data. To those I would add that the paradigm is shifting with respect to who is directing the ownership and flow of the information. In a past era of exclusively paper patient records, the practitioners created the records, the facility owned the paper and the facility stored it for the requisite time period; patients obtained copies of these records upon request. When consumers of health services — note the change from “patients” — create some of the records related to their health, practitioners become the ones who have to request access to the data rather than being its creators. The locus of control shifts. If the trend toward patient-centred care as a philosophy has not yet drilled the paternalism out of health care, technology-changed communication patterns may be the driver that finishes the job.

The fourth theme we identified was The System, encompassing changing models of care and the drive to do more with less. At the time the report was prepared, there had been recent major shifts in publicly-funded physiotherapy services in Ontario. Although the specific details of Ontario’s landscape may not be applicable throughout Canada, physiotherapists in all parts of the country...
As a profession, we also need to remember that students do not enter physiotherapy programs with their minds as a blank slate; they already have attitudes, values and preferences shaped by the interactions that inspired them to apply for admission.

can likely identify changing models of care and the pressure to do more with less in their own environments. In addition, the events in Ontario in the past seven years—i.e., beginning with the legal change in scope of practice in 2009—serve as an example of how advocating for future events can influence them but not always in a linear fashion. Imagine a large group of people, all working on a river that is largely frozen over. Different groups are working at freeing individual ice boulders from the mass and getting them to join the downstream flow. Very suddenly, some pieces break up and join the flowing water, possibly knocking other frozen parts into the river as well. It is the outcome the people were working toward, but it had been hard to predict which pieces would move first and which would take more effort. The workers had to prepare for multiple possible futures, depending on which ice blocks moved first, and to ensure that all foreseeable risks were mitigated in the various possible sequences of events.

In considering the future of physiotherapy, I believe we should include a strong focus on ourselves as people. Using data from the Canadian Institutes of Health Information (CIHI), we can calculate that the net national total of inflow minus outflow of physiotherapists was 469 of 17,693 physiotherapists in 2013 (2.7% increase), and was 842 of 18,209 physiotherapists in 2014 (4.6% increase). CIHI notes that there may be differences across jurisdictions in record identifiers, thus affecting the precision of these estimated increases. However, we can corroborate the CIHI data with data provided by the Canadian Alliance of Physiotherapy Regulators to university physiotherapy programs about outcomes on the Physiotherapy Competency Examination (PCE). There have been over 650 first-time PCE takers per year for the past several years from the Canadian programs alone, the vast majority of whom pass the PCE on their first attempt. In addition to Canadian-educated candidates, there is an inflow of several hundred internationally educated physiotherapists (IEPTs) per year. Although IEPTs have a lower success rate than Canadian-educated candidates as first-time PCE takers, many succeed, if not on the first attempt then on a subsequent one. From the PCE data we can thus estimate that inflow to the physiotherapy profession in Canada is at least 3.5 to 4.0% per year. Thus, any consideration of where we as a profession will be five or 10 years in the future needs to include that many of the “we” will be entirely different people than we are today. Moreover, the current “we” will shape the future “we”, intentionally or otherwise. We would be wise to be intentional about it.

When I and some colleagues presented Who We Admit is Who We Will Become at CPA Congress 2014, we examined diversity among learners in multiple entry-to-practice physiotherapy programs across Canada. We sought to draw attention to various aspects of culture among those aspiring to become physiotherapists, not only to ensure that admission processes are fair and equitable but also to consider the cultural diversity and competence of the workforce as a whole. We believe the profession can be more responsive to the future needs of peoples in Canada by welcoming a diversity of opinions and cultures.

As a profession, we also need to remember that students do not enter physiotherapy programs with their minds as a blank slate; they already have attitudes, values and preferences shaped by the interactions that inspired them to apply for admission. Similarly, IEPTs do not enter Canadian practice as a blank slate; they have experiences from their previous countries and aspirations of how they can contribute as physiotherapists in Canada. Education programs and regulatory bodies can only grant entry to people who are inspired to apply to them. The future of Canadian physiotherapists lies in who is inspired—one by meeting and interacting with current physiotherapists—to seek to become one.

Any single future state is difficult to predict with any precision. But with attentive environmental scanning, we can be prepared for many external forces that might contribute to the course we steer. I think we need to attend especially closely to the paradigm shifts driven by technology, accelerating the benefits for our patients/clients and mitigating the risks. I also think we need to remember that the future of a people is in its people. Inspiring young people to embrace the ethics and aspirations of current physiotherapists, fostering resilience and professional identity in them, and welcoming their ideas on how we can do better—these are all potent drivers for shaping our future.

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Leading Change:
Why Not Physiotherapy?

Fred Horne, former Alberta Minister of Health and Member, CPA Board of Directors

As Canada approaches its 150th birthday, we will quite rightly celebrate our proud history of providing universal access to critical health care services since the 1960s. However, many will also be reflecting on the challenges of delivering health care in the 21st century and wondering about whether the system we all value so highly can effectively meet the increasingly complex needs of Canadians and be sustainable in the long-term. As a former health minister, health policy analyst, and more recently a member of CPA’s Board of Directors, Physiotherapy Practice asked me to reflect on the key challenges ahead and the contribution physiotherapy might make to meet them.

Canada’s Performance and the Case for Change
While our health care providers offer excellent care and our governments spend more on health per capita than most countries, our overall performance on international benchmarks can best be described as “middle of the pack”. The fact that more money does not buy better health care is well-documented and has been the subject of considerable discussion in the last few years. Many provinces have reported that as few of 5% of the population are utilizing 60-65% of health care resources. At the same time, the proportion of health costs as a percentage of provincial budgets continues to increase and may soon reach 50% in some provinces.

Where to Focus?
We know change is needed. The question is where do we focus and how do we get the job done? Traditional approaches to health policy and program development often involve identifying factors in the external environment and developing targeted strategies to address them, often in the form of new programs at an additional cost. Demographic changes, such as our growing and ageing population and the emergence of new technologies are two examples. These are significant factors, to be sure, and health systems must respond.

But much of the answer, in my view, will come from looking inwardly at how basic care is delivered, and being willing to confront and address what’s simply not working for patients. There is no shortage of stories about fragmented care, poor or failed transitions between hospital and community, unnecessary repeated tests, lack of access to after-hours care and community-based support services that keep people out of hospital, and most of all, missed opportunities to prevent illness and injury before it happens. Whether you are a front-line health provider, an administrator, or the health minister these are the issues that are front and centre now. And from a sustainability perspective these are costly problems. Every decision we make in health care carries an opportunity cost decision – by choosing to do something, including what is unnecessary or avoidable, we forego the opportunity to do something of greater value.

The Value Proposition for Physiotherapy
Physiotherapy offers an impressive and unique value proposition. As a profession, physiotherapy is present with patients through virtually the entire continuum of care — from primary care and rehabilitation through to the subspecialties. Physiotherapists rarely work in isolation; they must be effective managers and coordinators of care to deliver high value outcomes to patients, including working with providers outside the formal health care sector. Physiotherapists work in both public and private health care delivery environments; in the latter, dealing with a wide range of issues that simply aren’t sufficiently or satisfactorily addressed in public health care settings. They contribute new knowledge and valuable data through research. Moreover, physiotherapists are investors in health care, providing facilities, equipment and staff needed to support improved population health and workforce productivity.

With a clear value proposition, the question then turns to where the profession can best focus efforts to have greatest effect, and with whom to partner.

Integration
One of the greatest challenges Canada faces is to become successful in the integration of care delivery. While the term itself is not well defined at the system level, talk to patients and they will tell you clearly what
Physiotherapists are in an excellent position to support efforts to better integrate care.

Physiotherapists, for the reasons cited above, are in an excellent position to support efforts to better integrate care. At a program level, we can see many examples of how the profession is contributing not only to improving the “lived experience” of patients, but in designing programming and research to support better use of resources and improve patient outcomes.

The Alberta Hip and Knee Clinic in Edmonton, a collaboration between Primary Care Networks, family physicians, allied health providers and the Alberta Bone and Joint Health Strategic Clinical Network, is an example of a program supported by physiotherapy and a program often cited for its success in supporting better integration.

Situated in a primary care setting, the clinic has developed a special screening process for patients referred for orthopaedic surgery. The results are impressive: approximately 80% of patients seen are found not to require surgery and offered alternative, more appropriate intervention, including physiotherapy. The other 20% receive pre and post-operative surgical care, coordinated at the primary care level rather than the hospital.

In addition to improved patient experience and better outcomes, the system gains are impressive. Eight of ten people who would normally wait to see an orthopaedic surgeon unnecessarily are taken out of the queue. The patients who remain can be seen earlier, and more can be accommodated.

Unnecessary diagnostic procedures such as magnetic resonance imaging tests are avoided. Patients tell their story once and the information is consistently and accurately shared with all involved in the continuum of care. And at a population health level, health professionals collaborate to evaluate patient outcomes and key performance indicators. This includes feedback to individual surgeons and institutions where arthroplasty care is provided.

The result is that a key population health risk and expensive health resources are managed effectively, and outcomes and the patient experience are optimized.

Implementation

When I was first appointed health minister, someone who had served in the role previously said to me, “Everyone will want you to fix health care until you try and change something.”

Despite successes like the Bone and Joint Clinic described above, the difficulty of making things actually happen in health care is considerable. In my experience, this has nothing to do with the commitment of everyone in all parts of the system to do better for patients—of that there is no doubt. But the pressure to simply “keep up” with the day to day delivery of care leaves little room for providers to even think about, let alone plan and implement, changes that will support better care. Change fatigue is a growing problem.

One thing I have observed in the last 30 years is that “top-down” driven change is rarely effective. The most effective and lasting change comes when decision-makers and administrators create the time, space and tools to support front-line providers in leading change that will benefit their patients, and then only when patients are directly involved in the discussions. We must find a way for the lived experience of both patients and providers to be the most highly valued commodity in health system improvement. Physiotherapists may well prove to be our best kept secret in addressing the challenges of 21st century healthcare.

About Fred:

Fred Horne is a health policy consultant and served as Alberta’s Minister of Health from 2011-2014. A frequent speaker and panelist on health system issues in Canada, he is Principal of Horne and Associates, Public Policy Consultants, and Adjunct Professor at the School of Public Health, University of Alberta.

As Minister of Health, Fred was responsible for the province’s $18 billion health budget, the Ministry of Health and Alberta Health Services, the province’s health delivery organization and the fifth largest employer in Canada.

Fred holds an MBA from Royal Roads University and the Certificate in Dispute Resolution from York University. He currently serves as Chair of Medbuy Corporation, and on the boards of the Canadian Physiotherapy Association and the Canadian Frailty Network.
No room for complacency

Michael T. Brennan, Chief Executive Officer, Canadian Physiotherapy Association

This issue of Physiotherapy Practice focuses on the current state and future evolution of the physiotherapy and rehabilitation market. For many of you, this is not a subject at the top of your list of interesting things to talk about. After all, providing good health care is a ‘here and now’ business: your clients’ needs are immediate and typically acute. Yet one of CPA’s most important responsibilities is to assess demand for physiotherapy services within a rapidly changing health care system. Demand is shaped by the irresistible forces of demographic and cultural change, and the seemingly endless cycle of health care system reform. Members who understand their impact are prepared to respond to change in the coming years.

Physiotherapy jobs of the future won’t be the same as today, just as today’s work force looks much different than it did 30 years ago. As a profession we are used to change, perhaps more than any other health profession in Canada. Education, practice, regulation, gender mix, workplaces and remuneration are significantly different. Will this pace of change continue? There is evidence and arguments throughout this magazine that say ‘yes’.

The Conference Board of Canada report confirms some important trends. Physiotherapy services have increased by roughly 3.8% annually. Services continue to shift to the private sector as a result of direct access and delisting. Physiotherapy employment is essentially full. The report also identifies a host of other health service providers that occupy a portion of the mobility and rehabilitation services spectrum. We can draw some basic conclusions: demand will grow at an increased rate based on increased demand from an older population with expectations of ‘healthy aging’.

Unemployment will remain very low for several more years. Services will continue to shift to more open markets, typically privately paid, autonomous physiotherapists working in teams.

These are promising trends for the profession, but there are challenges that must be acknowledged and addressed. In the very short term, we need to manage high demand without compromising care or suffering caretaker burnout. We must guard against high-margin, low-quality services designed to reduce wait lists at the expense of good outcomes. We need to manage the ‘dehospitalization’ of our health care system, where services are shifting from large hospitals to community and home-based care. We must ensure that patients have full access to necessary rehabilitation services within these new models of care.

Another, longer term responsibility is planning for increased competition. Markets constantly correct imbalances. When demand for services goes unmet, other providers and alternate services emerge. In addition, public and private payers constantly strive to reduce service costs. Timely, quality service at lower cost: that is our ongoing reality. We are well-equipped to compete in this environment, but we will fail if we are complacent.

Today, chiropractors, massage therapists, athletic therapists, and kinesiologists claim to offer similar services to physiotherapy, and even use the word in jurisdictions where the practice term is not protected by regulation. Notwithstanding the frustration we rightly feel when our hard-earned reputation is borrowed by others, the more important question is how best to manage our competitive position in the mobility services market. In one sense we are at a disadvantage. Physiotherapists are licensed, therefore our labour force is restricted. This drives up our unit cost of labour. Kinesiologists and athletic therapists are, for now, mostly unlicensed, therefore their services are generally less expensive. It is difficult to clearly identify their specific areas of expertise since national qualification standards don’t currently exist. Yet payers and clients are attracted to these providers due to lower cost and no restriction on the claims they can make of the value of their services. Physiotherapy would appear to be at a disadvantage in competing on the open market for the self-directed client seeking exercise advice.

Physiotherapy’s strength is the extensive understanding of mobility impairment due to a pathological condition. No one else in Canada is as thoroughly trained to assess mobility impairment and prescribe therapeutic exercise. Is there an opportunity to build consensus around this? Could we engage with athletic therapists, kinesiologists and others to define the optimal referral model? Today, the non-licensed fitness community is not sufficiently organized across Canada to achieve this goal. However, we see licensing models emerging in Ontario, and being contemplated in other provinces. This may be the optimal time to proactively lead the establishment of a referral model by consensus, rather than arbitration within the health regulation bureaucracy.

These trends create considerable pressure on our profession, but there are several resulting opportunities for physiotherapy. Our ability to diagnose and our understanding of pathology mean we are well placed to lead mobility and rehabilitation teams. As noted in Fred Horne’s article, we anticipate that Canadians will demand access to a full slate of services provided by care teams that focus squarely on patient needs, use electronic health records to facilitate transitions between providers, and measure outcomes in order to demonstrate effectiveness. ‘Bundle care’-style payment is becoming more prominent, where the dollars follow the patient. The old fee-for-service models are changing. More and more patients will pay for an outcome, rather than a service. Physiotherapists who understand these trends will be well-placed to respond with clear outcomes at reasonable cost.

Rather than compete interprofessionally, we can anticipate collaborative work consulting with family physicians, referring to other exercise specialists, and supporting treatment of complex care patients. This team approach, where the patient receives care from the right provider based on their needs, is becoming more entrenched across all areas of health care. Will it also apply to private orthopaedic physiotherapy? The trend may take several years to significantly change our traditional private practice model, but we would do well to pay close attention, and increase our capacity to adapt.

1 A term used by the Canadian Medical Association to define prioritization of primary health care above hospital-based services.
Strategic Considerations

Section 2: Healthcare Policy

Federal Health Minister’s Mandate Letter – November 2015

Unleashing Innovation: Excellent Healthcare for Canada – Executive Summary

Unleashing Innovation: Excellent Healthcare for Canada – Chapter 6: Reimagining the Healthcare Workforce

CPA National and Branch Advocacy Priorities
Dear Dr. Philpott:
I am honoured that you have agreed to serve Canadians as Minister of Health. We have promised Canadians a government that will bring real change – in both what we do and how we do it. Canadians sent a clear message in this election, and our platform offered a new, ambitious plan for a strong and growing middle class. Canadians expect us to fulfill our commitments, and it is my expectation that you will do your part in delivering on those promises to Canadians.
We made a commitment to invest in growing our economy, strengthening the middle class, and helping those working hard to join it. We committed to provide more direct help to those who need it by giving less to those who do not. We committed to public investment as the best way to spur economic growth, job creation, and broad-based prosperity. We committed to a responsible, transparent fiscal plan for challenging economic times.
I expect Canadians to hold us accountable for delivering these commitments, and I expect all ministers to do their part – individually and collectively – to improve economic opportunity and security for Canadians.
It is my expectation that we will deliver real results and professional government to Canadians. To ensure that we have a strong focus on results, I will expect Cabinet committees and individual ministers to: track and report on the progress of our commitments; assess the effectiveness of our work; and align our resources with priorities, in order to get the results we want and Canadians deserve.
If we are to tackle the real challenges we face as a country – from a struggling middle class to the threat of climate change – Canadians need to have faith in their government’s honesty and willingness to listen. I expect that our work will be informed by performance measurement, evidence, and feedback from Canadians. We will direct our resources to those initiatives that are having the greatest, positive impact on the lives of Canadians, and that will allow us to meet our commitments to them. I expect you to report regularly on your progress toward fulfilling our commitments and to help develop effective measures that assess the impact of the organizations for which you are answerable.
I made a personal commitment to bring new leadership and a new tone to Ottawa. We made a commitment to Canadians to pursue our goals with a renewed sense of collaboration. Improved partnerships with provincial, territorial, and municipal governments are essential to deliver the real, positive change that we promised Canadians. 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.
We have also committed to set a higher bar for openness and transparency in government. It is time to shine more light on government to ensure it remains focused on the people it serves. Government and its information should be open by default. If we want Canadians to trust their government, we need a government that trusts Canadians. It is important that we acknowledge mistakes when we make them. Canadians do not expect us to be perfect – they expect us to be honest, open, and sincere in our efforts to serve the public interest.

Our platform guides our government. Over the course of our four-year mandate, I expect us to deliver on all of our commitments. It is our collective responsibility to ensure that we fulfill our promises, while living within our fiscal plan. Other issues will arise or will be brought to our attention by Canadians, stakeholders, and the public service. It is my expectation that you will engage constructively and thoughtfully and add priorities to your agenda when appropriate.

As Minister, you will be held accountable for our commitment to bring a different style of leadership to government. This will include: close collaboration with your colleagues; meaningful engagement with Opposition Members of Parliament, Parliamentary Committees and the public service; constructive dialogue with Canadians, civil society, and stakeholders, including business, organized labour, the broader public sector, and the not-for-profit and charitable sectors; and identifying ways to find solutions and avoid escalating conflicts unnecessarily. As well, members of the Parliamentary Press Gallery, indeed all journalists in Canada and abroad, are professionals who, by asking necessary questions, contribute in an important way to the democratic process. Your professionalism and engagement with them is essential.

Canadians expect us, in our work, to reflect the values we all embrace: inclusion, honesty, hard work, fiscal prudence, and generosity of spirit. We will be a government that governs for all Canadians, and I expect you, in your work, to bring Canadians together.

You are expected to do your part to fulfill our government’s commitment to transparent, merit-based appointments, to help ensure gender parity and that Indigenous Canadians and minority groups are better reflected in positions of leadership.

As Minister of Health, your overarching goal will be to strengthen our publicly-funded universal health care system and ensure that it adapts to new challenges. Healthcare across Canada is changing at a rapid pace to keep up with the changing needs of an aging population and advances in health technology. The federal government must be an essential partner in improving outcomes and quality of care for Canadians. I expect you to work with provincial and territorial governments to support them in their efforts to make home care more available, prescription drugs more affordable, and mental health care more accessible. When Canadians are in good physical and mental health, they are able to work better, be more productive, and contribute more fully to our economy while living healthier, happier lives. Our health care system provides Canadians with peace of mind, but we need to make the investments necessary to ensure it can continue to evolve and innovate.

In particular, I will expect you to work with your colleagues and through established legislative, regulatory, and Cabinet processes to deliver on your top priorities:

- Engage provinces and territories in the development of a new multi-year Health Accord. This accord should include a long term funding agreement. It should also:
  - support the delivery of more and better home care services. This includes more access to high quality in-home caregivers, financial supports for family care, and, when necessary, palliative care;
○ advance pan-Canadian collaboration on health innovation to encourage the adoption of new digital health technology to improve access, increase efficiency and improve outcomes for patients;
○ improve access to necessary prescription medications. This will include joining with provincial and territorial governments to buy drugs in bulk, reducing the cost Canadian governments pay for these drugs, making them more affordable for Canadians, and exploring the need for a national formulary; and
○ make high quality mental health services more available to Canadians who need them.

• Promote public health by: increasing vaccination rates; introducing new restrictions on the commercial marketing of unhealthy food and beverages to children, similar to those now in place in Quebec; bringing in tougher regulations to eliminate trans fats and to reduce salt in processed foods, similar to those in the United States; and improving food labels to give more information on added sugars and artificial dyes in processed foods.
• Work with the Minister of Sport and Persons with Disabilities in increasing funding to the Public Health Agency of Canada to support a national strategy to raise awareness for parents, coaches, and athletes on concussion treatment.
• Introduce plain packaging requirements for tobacco products, similar to those in Australia and the United Kingdom.
• Support the Ministers of Justice and Public Safety and Emergency Preparedness on efforts that will lead to the legalization and regulation of marijuana.
• Work with the Minister of Indigenous and Northern Affairs to update and expand the Nutrition North program, in consultation with Northern communities.

These priorities draw heavily from our election platform commitments. The government’s agenda will be further articulated through Cabinet discussions and in the Speech from the Throne when Parliament opens.

I expect you to work closely with your Deputy Minister and his or her senior officials to ensure that the ongoing work of your department is undertaken in a professional manner and that decisions are made in the public interest. Your Deputy Minister will brief you on issues your department may be facing that may require decisions to be made quickly. It is my expectation that you will apply our values and principles to these decisions, so that issues facing your department are dealt with in a timely and responsible manner, and in a way that is consistent with the overall direction of our government.

Our ability, as a government, to successfully implement our platform depends on our ability to thoughtfully consider the professional, non-partisan advice of public servants. Each and every time a government employee comes to work, they do so in service to Canada, with a goal of improving our country and the lives of all Canadians. I expect you to establish a collaborative working relationship with your Deputy Minister, whose role, and the role of public servants under his or her direction, is to support you in the performance of your responsibilities.

In the coming weeks, the Privy Council Office (PCO) will be contacting you to set up a meeting with PCO officials, your Deputy Minister and the Prime Minister’s Office to further discuss your plans, commitments and priorities.

We have committed to an open, honest government that is accountable to Canadians, lives up to the highest ethical standards, and applies the utmost care and prudence in the handling of
public funds. I expect you to embody these values in your work and observe the highest ethical standards in everything you do. When dealing with our Cabinet colleagues, Parliament, stakeholders, or the public, it is important that your behaviour and decisions meet Canadians’ well-founded expectations of our government. I want Canadians to look on their own government with pride and trust.

As Minister, you must ensure that you are aware of and fully compliant with the *Conflict of Interest Act* and Treasury Board policies and guidelines. You will be provided with a copy of *Open and Accountable Government* to assist you as you undertake your responsibilities. I ask that you carefully read it and ensure that your staff does so as well. I draw your attention in particular to the Ethical Guidelines set out in Annex A of that document, which apply to you and your staff. As noted in the Guidelines, you must uphold the highest standards of honesty and impartiality, and both the performance of your official duties and the arrangement of your private affairs should bear the closest public scrutiny. This is an obligation that is not fully discharged by simply acting within the law. Please also review the areas of *Open and Accountable Government* that we have expanded or strengthened, including the guidance on non-partisan use of departmental communications resources and the new code of conduct for exempt staff.

I know I can count on you to fulfill the important responsibilities entrusted in you. In turn, please know that you can count on me to support you every day in your role as Minister.

I am deeply grateful to have this opportunity to serve with you as we build an even greater country. Together, we will work tirelessly to honour the trust Canadians have given us.

Yours sincerely,

Rt. Hon. Justin Trudeau, P.C., M.P.
Prime Minister of Canada
UNLEASHING INNOVATION: Excellent Healthcare for Canada

EXECUTIVE SUMMARY
EXECUTIVE SUMMARY

On June 24, 2014, the Government of Canada’s health minister, the Honourable Rona Ambrose, launched the Advisory Panel on Healthcare Innovation. The Panel was charged with identifying the five most promising areas of innovation in Canada and internationally that have the potential to sustainably reduce growth in health spending while leading to improvements in the quality and accessibility of care. The Panel was also asked to recommend ways the federal government could support innovation in those five areas.

Since then, the Advisory Panel on Healthcare Innovation has been learning and deliberating more or less non-stop. In the course of its work, the Panel received scores of submissions from organizations and individuals, conducted on-line consultations, crisscrossed the country for in-person discussions with a wide range of stakeholders, reviewed literature and commissioned research studies, and spoke with experts in both domestic and international healthcare policy.

These interactions consistently brought home two points.

First, consistent with polls showing that Canadians are concerned about the state of their healthcare systems, the Panel heard from many stakeholders who see the need for fundamental changes in how healthcare is organized, financed, and delivered.

The Panel’s review suggested that these concerns were well-founded. While Canada’s healthcare systems remain a source of national pride and provide important services to millions of Canadians every week, the scope of public coverage is narrow, and their overall performance by international standards is middling, while spending is high relative to many OECD countries. Canada also appears to be losing ground in performance measures relative to peers.

Second, pockets of extraordinary creativity and innovation dot the Canadian healthcare landscape. Local, regional and even provincial programs worthy of emulation have simply not been scaled-up across the nation.

Many barriers to effective scaling-up were identified by stakeholders. One key challenge was the lack of any dedicated funding or mechanism to drive systemic innovation. As well, the fragmented nature of the system – with separate budgets and accountabilities for different provider groups and sectors – emerged as the most important structural barrier to both new reform initiatives and effective scaling-up of well-tested ideas and programs. This shortcoming appeared to be operating in a vicious cycle with slow deployment and incomplete utilization of modern information technology.

The Panel observed further that Canada’s healthcare systems appeared to be ill-prepared to respond to various shifts in their context. Patients are demanding more participation in their own care and engagement with the design of healthcare programs. As the population ages, there will be a greater premium on seamless delivery of multi-disciplinary care across diverse settings, not least the patient’s place of residence. The digital revolution continues to disrupt many enterprises, and sooner or later will transform healthcare. Moreover, accelerating advances in biotechnology are now ushering in an exciting but challenging new era of precision medicine. Canada has pockets of research leadership in this field, but only one small province has taken steps towards implementation of the required learning systems to make precision medicine a clinical reality.

Meanwhile, polling data show that the majority of Canadians no longer believe that an increase in operating funds is the primary solution to the perceived shortcomings of their healthcare systems.

Critical Areas for Healthcare Innovation

Weighing all these inputs, and consistent with its mandate, the Panel identified five broad areas where federal action was important to promote innovation and enhance both the quality and sustainability of Canadian healthcare. These were:

• patient engagement and empowerment
• health systems integration with workforce modernization
• technological transformation via digital health and precision medicine
• better value from procurement, reimbursement and regulation

• industry as an economic driver and innovation catalyst.

To make recommendations for action on these fronts, the Panel first examined the federal government’s role in the evolution of Canada’s universal healthcare systems.

The Evolving Federal Role

In the 1950s and 1960s, federal investments built capacity for healthcare across Canada, and, through conditional cost-sharing, induced provinces and territories to adopt universal coverage for hospital costs and physician services on more or less uniform terms. Those conditions were weakened by new cost-sharing arrangements in the 1970s, but reaffirmed in 1984 with the Canada Health Act.

Starting in the 1980s and intensifying through to the mid-1990s, successive federal governments unilaterally reduced transfers to the provinces and territories. Fiscal circumstances eased, and from the late 1990s to 2004 Ottawa steadily augmented funding for healthcare. By agreement, these new funds were earmarked to achieve specific objectives, albeit distributed on a formulaic basis. The largest of these initiatives moved an additional $3.2 billion per year to the provinces and territories. Some laudable progress was made – for example, waiting times for specific services were reduced. However, the Panel’s view is that, overall, this period and these investments led neither to modernization of the architecture of Canadian healthcare, nor to serious broadening of the scope of public coverage.

The last ‘Health Accord’ of this nature committed the federal government to make six percent annual increases in the Canada Health Transfer. In 2011 the federal government unilaterally determined that, after expiry of the 2004 agreement and starting in 2017-18, it would reduce the annual rate of growth to the rate of GDP growth or three percent per annum, whichever was larger.

Already facing fiscal pressures, the provinces and territories have intensified their cost containment measures and responded with collaborative initiatives such as group purchasing of prescription pharmaceuticals. However, in the Panel’s view, these and other commendable front-line efforts to improve healthcare and augment its value are limited in part by a serious shortfall in working capital, and the absence of a cadre of dedicated and expert personnel who can support efforts to initiate and scale-up improvements in healthcare across Canada.

Collaboration for Healthcare Innovation: New Model, New Agency, New Money

The Panel understands that sustaining six percent compounded growth in the federal transfer is difficult in the present fiscal circumstances. It has not recommended any changes to the current plans for transfers. It has also rejected a return to earlier approaches that depended on unanimously agreed priorities and formulaic allocations of funds. Instead, having examined the scope and scale of the problem, and having examined international and domestic precedents, the Panel is recommending two key enabling actions.

The first enabling action is a consolidation of the mandates of three existing agencies and expansion of capacity to create a new vehicle for accelerated change. As a placeholder, this agency has been termed the Healthcare Innovation Agency of Canada (HIAC). The choice of existing agencies for inclusion in HIAC is a reflection not on their performance but on the centrality of their missions to the task of transforming Canadian healthcare, and the synergistic impacts to be achieved from drawing them together and scaling up their activities as needed. HIAC would accordingly draw on staff from the Canadian Foundation for Healthcare Improvement, the Canadian Patient Safety Institute, and, after a transition period for completion of its existing projects, Canada Health Infoway.

The second enabling action is the provision of fuel both for that vehicle and to support provinces and territories as they strengthen their healthcare systems with fundamental reforms and work with stakeholders to scale-up well-tested innovations. These funds would flow to ‘coalitions of the willing’ – jurisdictions, institutions, providers, patients, industry, and committed innovators of all backgrounds. Again as a placeholder, this has been termed the Healthcare Innovation Fund (hereafter, the Fund, for short).

About the new Agency: As exemplified by seven pan-Canadian health organizations and the Canadian Institutes of Health Research (CIHR), this approach to supporting
national collaboration in specific areas has been used for more than two decades. CIHR is the largest of these entities with an annual outlay of approximately $1 billion per annum. However, its primary mandate has been – and should remain - the funding of academic research. Each of the other entities has a specific focus on elements of innovation, and each can claim unique strengths. However, none has had a broad innovation mandate, and none has anything like the scale to take on such a role. In contrast, HIAC as a new Agency would be dedicated to catalyzing change in real-time, evaluating the impacts of those changes, and accordingly rejecting, revising and re-evaluating, or scaling-up the resulting innovations.

HIAC should be an arm’s length organization, supported through the Healthcare Innovation Fund, governed by a group of eminent Canadians appointed on merit alone, and linked to one or more advisory committees composed of representatives of a range of stakeholders, not least provincial and territorial governments. Its corporate structure should enable it to provide robust, independent oversight and direction for a range of projects, including those fielded across Canada with support from the Innovation Fund.

**About the new Fund:** The Healthcare Innovation Fund’s broad objectives would be to effect sustainable and systemic changes in the delivery of health services to Canadians. Its general goals would be to: support high-impact initiatives proposed by governments and stakeholders; break down structural barriers to change; and accelerate the spread and scale-up of promising innovations. It would not be allocated on the basis of any existing transfer formulae, nor would its resources be used to fund provision of healthcare services that are currently insured under federal, provincial and territorial plans. Allocations would instead be made on the basis of rigorous adjudication against transparent specifications, having particular regard for measurable impacts on health outcomes, creation of economic and social value, sustainability, scalability, and a commitment by partners to sustain those innovations that are demonstrably successful.

The Panel recommends that these two initiatives should begin as early as possible in the mandate of the Government that will take office after the election of October 2015. The outlay from the Fund should rise as needed, with the expectation that a steady-state target of $1 billion per annum might in ideal circumstances be reached as early as 2020. The Agency and the Fund would be important enablers for many of the specific recommendations made by the Panel in each of the five identified areas that are priorities for innovation. Unless otherwise specified, the Fund and HIAC should be assumed to be the leads from the federal side in what follows.

**Theme 1: Patient Engagement and Empowerment**

The Panel reviewed evidence showing a large gap between the rhetoric of patient-centred care and the experience of many patients and families in modern healthcare systems. It was also encouraged by many teams, institutions and systems in Canada that have been taking positive steps to bridge rhetoric and reality. At a system or subsystem level, the Panel recommends implementation of various models of payment and accountability organized around patients’ needs, rather than the existing revenue streams of providers and institutions. At the institutional or regional level, priority must be given to implementation and scaling-up of the many programs that have yielded positive results as regards patient-centred care and patient and family engagement in the design and evaluation of healthcare programming and systems.

The Panel has also identified an acute need for developing and implementing information tools for patients in two distinct areas. The first is the promotion of health and healthcare literacy. The second is the scaling-up of best practices in the use of patient portals, ensuring that patients effectively co-own their health records. Patient engagement and co-ownership of health records would be further facilitated through mobile and digital health solutions that enable virtual care and empower patients, while meeting common standards and interoperability requirements. The role of government in this milieu will be very different than was the case when Infoway began building information infrastructure in 2001. As outlined under Theme 3, a transition in structures and roles is warranted.

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1. The combined enterprise represented by the Agency and Fund might be reflected by a collective moniker, such as Healthcare Innovation Canada.
Theme 2: Health Systems Integration with Workforce Modernization

The Panel observed substantial symbiosis between an integrated healthcare system and an innovative one. US group health plans illustrate how, even within a very challenging context, integrated healthcare systems offer patients enhanced access, along with high quality care from multi-professional and multi-specialty teams, at costs lower than current Canadian per capita spending. Supporting the implementation and iterative improvement of integrated healthcare demonstrations and ‘bundled payment’ models must accordingly be a high priority for the Agency and Fund. Where possible, demonstrations should be implemented that integrate healthcare and social services or that otherwise provide specific incentives to addressing social needs, protecting and promoting health, or preventing disease.

These shifts in payment and accountabilities operate synergistically with changes in professional roles and responsibilities. Best practices in inter-professional care should be scaled-up, with particular attention paid to implementing the recommendations of the Canadian Academy of Health Sciences report on Optimizing Scopes of Practice (2014). In a similar vein, the Panel recommends a collaborative national initiative to examine roles, responsibilities, and payment of health professionals in relation to generation of value.

These general priorities for more integrated care carry additional weight in the realm of Aboriginal healthcare. A number of recommendations are accordingly directed to Health Canada and its First Nations and Inuit Health Branch on this topic. Among these are co-creation of a First Nations Health Quality Council and a parallel liaison committee for Inuit representatives, drawing together Aboriginal representatives and patients, and representatives of provincial and territorial governments. Experimentation is already underway with new models of co-governance of health services for First Nations; the Panel urges continued exploration of these models along with careful evaluation, ensuring always that service transfers are commensurate with resources. A range of other concerns have also been surfaced for action. Inter alia, these include: improved health infrastructure and health human resources for reserves, the administration of the Non-Insured Health Benefits program and its integration with provincial and territorial systems, and the need for new models of care that will mitigate costs and burden of travel.

Theme 3: Technological Transformation via Digital Health and Precision Medicine

A third priority for innovation is to capitalize on the exciting developments underway in the generation and application of health data and knowledge.

About Health Data and Electronic Health Records: Development of info-structure has accelerated in Canada, with wider uptake of electronic health records. However, Canada lags on many fronts, including meaningful use of those digital resources, secure access to patient records by authorized users to enable safe and seamless care, assurance of digital access to their own records for patients, development of virtual care applications, and achievement of sufficient inter-operability and standardization of data to permit more effective use of all these data for performance measurement and advanced analytics. The Panel has recommended action on all those fronts.

As noted earlier, the Panel envisages the short-term continuation of Canada Health Infoway, with bridge funding that will enable it to complete current projects. Thereafter, as the agenda shifts from info-structure to uptake and applications, Infoway would merge into HIAC and all further funding for its partnerships should flow through the Fund.

Canadian Institute for Health Information (CIHI) would be supported to provide greater transparency about healthcare in Canada and to lead ‘open data’ efforts. CIHI would also be expected to pursue more intensive data-gathering on three fronts: the 30% of healthcare spending that flows from private sources; health services for, and health of First Nations, working in partnership with the First Nations Quality Council; and patient-oriented outcome measures. CIHI and the new Agency would partner with provinces and territories to develop information appropriate to support integrated delivery models, including different forms of bundled payments. Lastly, CIHI would need to ensure greater information dissemination to a range of audiences – particularly the general public — of the information it gathers.

About Precision Medicine: The rapid development of sophisticated biomarkers is disrupting the prevention, diagnosis, and treatment of illness – indeed, redefining existing diseases and their prognoses. Canada has pockets of strength in precision medicine, and a nascent research strategy has been led by CIHR. However, what is notably
absent is a national strategy for innovation, i.e., implementing these concepts into front-line care. For example, the Panel saw meaningful scope to improve the use of prescription drugs by applying these techniques – but limited uptake. The Panel’s recommendations are designed to ensure that Canada’s diverse populations and single-payer healthcare systems can be leveraged to our national advantage. It is particularly important to develop and begin following a roadmap to ensure that Canada’s healthcare information and communications technology will support these data-intensive models of care and the rapid-cycle innovations that characterize precision medicine as a field. The Panel also urged the scaling of models of care in subfields of precision medicine that are relatively more mature, such as pharmacogenomics and cancer diagnosis and treatment. It perceives that there is substantial potential for the commercialization of made-in-Canada concepts and tools in the precision medicine field, provided that a nimble implementation strategy can be launched as recommended.

Theme 4: Better Value from Procurement, Reimbursement and Regulation

As noted, on a value-for-money basis in healthcare, Canada is lagging many peer nations. The Panel concluded that changes to healthcare finance, purchasing and regulation could improve the value received by Canadians in areas such as prescription drugs, physician services, and medical technologies. Most of the related recommendations are directed to Health Canada or existing federal agencies.

Pharmaceutical products stood out as a concern, given Canada’s extremely high per-capita outlays, our outlier status as a country with universal healthcare programs but inequitable and uneven coverage of prescription drugs, and the cost pressures looming from new biological compounds. The Panel strongly supports the principle that every Canadian should be able to afford necessary drugs, but sees demonstration of wide improvements in pricing as a prudent precursor to extending coverage, and is concerned that, absent integration and alignment of incentives, a new stovetop of spending on pharmaceuticals may not have the anticipated cost-control effects. To this end, it has recommended that existing federal drug plans reaffirm their desire to join the Council of the Federation’s pan-Canadian Pharmaceutical Alliance and that HIAC offer to serve as the secretariat, in conjunction with exploring strategies to extend the reach of this alliance to private insurance plans.

In contrast to current industry practice of confidential rebates, the Panel supports a national push for full transparency of net prices paid, so that all stakeholders have enough information to make informed choices. As well, the high price of pharmaceuticals and move to collective procurement both suggest the need for a review of the policies and practices of the Patented Medicines Pricing Review Board.

Last, the Panel observed that some effective technologies and practices are slow to diffuse, while obsolete technologies and practices persist. To this end it recommended funding for, and careful evaluation of the impact of, Choosing Wisely Canada.

Theme 5: Industry as an Economic Driver and Innovation Catalyst

Other nations are adopting policies designed both to nurture a domestic healthcare industry and to reshape interactions with multinational companies that provide healthcare goods and services. The underlying motivation is clear: publicly-funded healthcare is invariably a valued social program, but can also contribute to economic development. The Panel’s review found that Canada lags other jurisdictions such as Denmark and the UK in policies and processes of this nature. In particular, for both drugs and devices, Canada’s regulatory environments and markets are characterized by fragmentation, duplication, and inconsistencies.

The Panel has accordingly recommended a number of changes, including creation of a Healthcare Innovation Accelerator Office, to be housed in HIAC, focused on accelerating the adoption of potentially disruptive technologies that show early promise of value for money to the system and benefit for patients. HIAC should also support the spread and scale-up of improved procurement processes, e.g. value-based approaches and best practices such as the competitive dialogue process used by the European Union and MaRS Excite.

Some of the recommendations in the recent Review of Federal Support to R&D (2010) will require customization for the unique features of healthcare enterprises, but are highly relevant to health-related Canadian companies, particularly small and medium-sized enterprises. In this regard, drawing on insights from the 2010 Review, Health

EXECUTIVE SUMMARY
Canada should work in tandem with a range of stakeholders inside and outside the federal government to develop a whole-of-government strategy that would support the growth of Canadian commercial enterprises in the healthcare field.

In the chapters covering Themes 4 and 5, the Panel is recommending a number of improvements to the mechanisms for assessing and regulating drugs and devices, targeting variously Health Canada and its Health Products and Food Branch, and the Canadian Agency for Drugs and Technologies in Health (CADTH). Under theme 5, the Panel urges attention to regulatory enhancements that might reduce duplication and enable higher quality and faster reviews without compromising Canada’s current standards for drug and device safety.

Consensus and Fairness as Healthcare Evolves

A Federal Role in Consensus-Building: Many of the Panel’s recommendations have cross-cutting implications. For example, a more integrated healthcare system has a much higher probability of yielding a patient-centred experience than one in which patients and families navigate a poorly coordinated care with uneven coverage and incomplete sharing of health records. In the same vein, interwoven through the report are a number of recommendations that broadly enable innovation through consensus-building with or without related legislative or regulatory action. They are gathered and summarized here.

Technological and social innovation in healthcare have already generated a variety of ethical and legal issues. The Panel recommends that Health Canada in partnership with the new Agency should take the lead in consultation and consensus building across provinces and territories to anticipate such issues, and resolve legislative ambiguities as needed. Obvious pressure points are physician-assisted dying and genetic discrimination. However, a national consensus is also needed on protection of patient privacy while enabling innovation (e.g. in precision medicine and genomics, mobile health, and various forms of digitized health records). The Panel has been similarly struck by continued confusion – and the potential of inter-jurisdictional inconsistencies – on the matter of patients’ access to and co-ownership of their personal health records. Last, but not least, in an era when Open Data and Big Data are seen as twinned enablers of data-driven innovation, Canadian governments and research agencies have failed to forge a consensus on how broad sharing of appropriately anonymized health-related data can safely occur across and within jurisdictions. As noted, this is critical not only for rapid innovation in the field of precision medicine, but for enhancing applied health research and data-driven innovation in Canada’s healthcare delivery systems.

Financial Fairness in a Period of Transition: Canada’s total proportion of private spending on healthcare has been more or less stable at 30% since the late 1990s, but out-of-pocket spending is rising in relative terms. This is associated with an inequitable burden on lower-income Canadians. The inequitable distribution of this burden will also be exacerbated by population aging given that about $6 billion was spent out-of-pocket on long-term care and billions more in other supplies and services that are used at a much higher rate by senior citizens.

In recommending changes to tax policy that will enhance fairness, the Panel emphasizes that these are transitional measures: they do not vitiate the need to achieve universal coverage for prescription drugs nor the adoption of new delivery models that might allow cost-effective expansion of public coverage.

The Panel’s core recommendation in this regard is an income-scaled Refundable Health Tax Credit (RHTC). The RHTC would replace the existing supplement and, like that supplement, be applied in conjunction with the existing Medical Expense Tax Credit. The RHTC would provide tax relief of 25 percent on eligible out-of-pocket healthcare expenditures up to $3,000 per year, starting with the first dollar spent on eligible expenses. Additional expenses would be claimable under the new Medical Expense Tax Credit. Provinces would have the option of adopting the new credit in their tax systems, thereby potentially increasing its value.

Related recommendations address how the administration of the RHTC could be structured to help ease the cash-flow burden of out-of-pocket health costs on individuals and families with modest incomes. Furthermore, the cost of this credit would be fully offset both by cancelling the existing supplement and, more importantly, by taxing the employer-paid premiums for employer-sponsored private health and dental plans. This expense, however, would be considered as a qualifying medical expense under the new RHTC and/or METC, meaning that employees could claim it on their income tax return. The Panel believes that these measures, in their totality, enhance fairness among taxpayers, as well as helping to mitigate an unfair and
growing burden of out-of-pocket healthcare costs on Canadians with modest incomes. fundamental changes in incentives, culture, accountabilities, and information systems.

Concluding Reflections

The collection of universal healthcare insurance programs colloquially known as ‘Medicare’ continues to offer essential services to millions of Canadians, and remains the nation’s most iconic social program. However, Medicare is aging badly. The Panel has been left in no doubt that a major renovation of the system is overdue, and is chagrined and puzzled by the inability of Canadian governments – federal, provincial, and territorial – to join forces and take concerted action on recommendations that have been made by many previous commissions, reviews, panels, and experts.

At the outset of the current review, Panel members sensed that some stakeholders expected a quasi-commercial ‘Dragon’s Den’ exercise – the tidy delineation of five quick fixes or big trends, a spotlight on a few made-in-Canada solutions offered by enterprising teams in the private or public sectors, and some policy palliatives that would justify placing healthcare on the federal backburner. Panel members, including the late Dr. Cy Frank, believed in contrast that their mandate could only be fulfilled by taking a wide-angle view of healthcare innovation.

To that end senior officials in Health Canada have consistently supported the Panel members in their work, and taken in stride the fact that some of the Panel’s findings might shine a critical light on the Department itself. For her part, Minister Rona Ambrose has been meticulous in respecting the Panel’s independence. The Panel would add that by excellent example, the Minister has illustrated the positive role that facilitative federal leadership can play in Canadian healthcare. It bears repeating, however, that no elected or appointed officials of any government, not least the Government of Canada, should be assumed to endorse any of the interpretations, opinions, or recommendations advanced in the report.

In conclusion, the Panel reiterates that, with bold federal action and prudent investment, and with a renewed spirit of collaboration and shared political resolve on the part of all jurisdictions, Canadian healthcare systems can change course. What has accordingly been proposed in the report is specifically designed to move Canada toward a different model for federal engagement in healthcare – one that depends on an ethos of partnership, and on a shared commitment to scale existing innovations and make
The Panel does not pretend that this model offers an immediate remedy for the ills of Canadian healthcare. However, we have a high degree of confidence that concerted action on our recommendations can and will make a meaningful difference that will be seen and felt across Canada by 2025. With collaboration by all levels of government and healthcare system stakeholders, there is no reason why Canada cannot reclaim the international leadership position in healthcare that this country once proudly held. We urge Canadians to settle for nothing less.

July, 2015
Figure 2.3 Health Status Performance Profile, Canada

Source: Canadian Institute for Health Information

Figure 2.6 Nation Summary Scores on Health Systems Performance

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Health Expenditures per Capita, 2011*

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*Expenditures shown is SUS PPP (purchasing power parity); data for Australia from 2010.
**Figure 2.1 Total Health Expenditures, Canada 1975-2014**

![Graph showing total health expenditures, Canada 1975-2014](image)


**Figure 2.2 International comparison of health spending**

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<td><strong>DRUG EXPENDITURE PER CAPITA</strong></td>
<td>$761</td>
<td>$517</td>
<td>2/31</td>
<td>2/9</td>
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</table>

Notes: Peer countries consist of Australia, France, Germany, Netherlands, New Zealand, Norway, Sweden, Switzerland, US, and UK; Rankings are ordered from highest to lowest expenditure; Based on 2013 data where available or next available preceding year; All figures are in $US and adjusted for purchasing power parity.

Source: OECD Health Statistics 2015

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v Figure 2.2 and related paragraphs updated to reflect 2015 OECD data (where available), which was released at the time this report was going to press. The remainder of this report has not been updated to reflect the 2015 data.
Reimagining the Healthcare Workforce

As discussed in Chapter 5, healthcare delivery in Canada needs to move from a provider-focused system to one that is based upon the needs of patients. This will involve organizing delivery over the full care cycle, with patients grouped based upon their healthcare needs and provider teams established to meet those needs.128 Those teams can be enabled by a combination of changes in payment models and by optimizing the scopes of practice of health professionals – a topic to which the Panel turns now.

In 2014, the Canadian Academy of Health Sciences released its ground-breaking report on health human resources in Canada.169 This wide-ranging review focused on the most effective scopes of practice to support integrated models of care in Canada. In the words of the report, there is an “emerging consensus that optimizing scopes of practice paired with supporting evolving models of shared care can provide a multidimensional approach to shift the healthcare system from one that is characteristically siloed to one that is collaborative and patient-focused.”169 The report assesses where Canada is right now, where it should aim to be and how to get there (see figure 6.2).

In its recommendations, the Canadian Academy of Health Sciences calls for “an integrative structural framework that supports the optimization of healthcare professional scopes of practice and innovative models of care.”169 This framework would recognize shared responsibility at the practice and institution levels with a regulatory model and a proposed accreditation structure.

The Panel strongly endorses the findings and recommendations of the Canadian Academy of Health Sciences.

Figure 6.2: Scopes of Practice Supporting Innovative Models of Care

Sciences and urges governments and providers to implement them in a timely fashion. In addition, the Healthcare Innovation Agency of Canada and the Healthcare Innovation Fund should play a supportive role in accelerating progress on this front, e.g. by supporting the development of a pan-Canadian mechanism to assess the value of healthcare services in terms of cost, provider role, and patient outcomes. This would help decision-makers determine fair and cost-effective payment strategies for different providers and enable the setting of prices that reflect value in terms of patient outcomes.

“The various elements of the current system were largely created to respond to acute, episodic care provided in hospitals and most often by individual physicians. Over the decades, these elements have become enshrined in legislative, regulatory, and financial schemes that challenge adaptation to shifts in population health care needs. Health care organizations and personnel seeking innovative solutions must often work around these barriers in order to optimize resources and improve quality of care.”


Given the need for greater collaboration between provider groups, many health organizations have called for inter-professional education and training in collaborative practice for health professions. The good news is that Canada has long been a leader in inter-professional education. The bad news is that the regulatory and payment environment is still a barrier to shared care. This must change.

Integrated Incentives and Shared Care

As argued above, the current segmented funding envelopes and budgetary silos create many perverse incentives in the deployment of health human resources. Among the bundled payment concepts that some have suggested would make a rapid difference to Canadians is the introduction of shared financial incentives for hospitals, physicians and community providers. More generally, even without adopting the staffing model of large-scale US health plans, a range of approaches can be imagined that would create strong financial incentives for providers to coordinate their efforts, to assign responsibilities in a team to the most cost-effective professional, and to be rewarded for the quality and value of the services provided.

“Implementation and operation of an integrated health system requires leadership with vision as a well as an organizational culture that is congruent with the vision. Clashing cultures...is one of the reasons named for failed integration efforts”


“Nurse practitioners and doctors should work together to provide care to our patients. It’s not a competition. There is a place for them to work collaboratively.”

Public Submission

As noted, more integrated delivery systems, such as Accountable Care Organizations or the Kaiser model, go one step further and include risk sharing. System managers organize care across different institutions and different types of professional services with a view to optimizing safety, effectiveness and efficiency. Compensation for professionals is aligned with the objectives of the entire enterprise. Perhaps the single biggest barrier to these large-scale innovations is the unease of practising physicians – and their concerns should not be taken lightly.

The Panel returns here to a theme in the preceding section. No matter the approach, better integrating services through alignment of incentives will entail changes in physician payment and accountability structures. There is no doubt that a great many physicians are willing and more than able to take on a much larger leadership role in changing the healthcare system for the better. Their engagement is essential to the future of
Medicare. However, in the Panel’s respectful view, physicians cannot readily join other health professionals in leading the system while standing guard in front of their traditional budgetary silos and related modes of remuneration.

Integrated Healthcare for Vulnerable Populations: The Case of First Nations

Nowhere are the impacts of a fragmented and disjointed healthcare system more keenly felt than with many of Canada’s First Nations. The Panel had the opportunity to meet and learn from First Nations stakeholders in its consultation activities across Canada. It also had the opportunity to meet with the First Nations Health Technicians Network of the Assembly of First Nations, and with a senior representative from the First Nations and Inuit Health Branch of Health Canada.

Many Canadians are aware of the relatively poorer health status of First Nations and Inuit peoples. What is less well known is that First Nations living both on and off reserve must traverse a patchwork of health systems that includes multiple federal departments (Health Canada, Aboriginal Affairs and Northern Development Canada), provincial/territorial governments, and sometimes inter-provincial/territorial health authorities. The result is that the endemic lack of coordination in Canada’s healthcare systems is exacerbated by jurisdictional ambiguity and inconsistencies.

One notable example of this phenomenon involved Jordan River Anderson, a five-year-old boy born with a rare muscular disorder requiring constant treatment. After two years in hospital, doctors felt Jordan could be treated at home. However, Jordan stayed in hospital for an additional two years, as the federal and provincial governments fought over whose responsibility it was to pay for his home care. Jordan died in hospital in 2005. In 2007, the House of Commons unanimously supported a Private Member’s motion that “the government should immediately adopt a child first principle, based on Jordan’s Principle, to resolve jurisdictional disputes involving the care of First Nations children.” However, in the Panel’s consultations, it heard first hand that all First Nations, including children, continue to experience barriers in care, in part because of jurisdictional ambiguity and disagreements between provinces and territories and the federal government as to who should pay for what services. The Assembly of First Nations has been working with the federal government and other partners to address this critical issue.

“I had a First Nations patient from up North who needed drainage of cancer-related fluid around the lungs. The patient was required to fly down weekly to my urban hospital to have the fluid drained despite the fact that this could be done at home with a catheter and the use of sealed bottles. I was told this was because there was no funding to pay for the bottles, but that in a different budget envelope there was funding for his medical transport. This meant that in his last six weeks of life, he had to be flown down once a week for care, rather than being looked after at home. On top of the impact that this had on his quality of care, the system should consider the cost. One of his six return trips alone would have more than paid for all of the bottles needed for caring for him at home.”

Participant at Regional Consultation

This situation highlights the imperative of designing and implementing integrated healthcare systems that respond to the unique needs and priorities identified by First Nations themselves and the related need for resolution through tripartite discussion.

One such model was created for BC in 2013. The BC First Nations Health Authority reflects a shared governance model that has integrated a broad range of services. This innovative initiative is now being evaluated on multiple levels to determine its strengths and weaknesses, but holds considerable promise.
The Alaska Native Tribal Health Consortium (ANTHC) is a non-profit organization which manages statewide health services for approximately 140,000 Alaska Natives and American Indians of Alaska. The ANTHC is managed and operated by the Alaska Native tribal governments and the regional health organizations. ANTHC delivers both upstream and downstream care; leads construction of water, sanitation and health facilities around Alaska; offers community health and research services; is at the forefront of innovative information technology; and, offers professional recruiting to partners across the state. ANTHC operates under a US $0.5 billion operating budget and employs approximately 2,000 people.


Transfer of some services to First Nations is also occurring at the local community level in both Yukon and the Northwest Territories. However, without adequate scale-up, these arrangements are likely to remain limited in scope and may be inefficient.

More generally, First Nations leaders expressed concern to the Panel that devolution could become a form of downloading. What seems essential is that all sides collaborate to ensure that resources and authority are aligned with responsibilities, and that there is perfect clarity about who does what in any tripartite arrangement. In particular, the federal government should take steps to ensure that health infrastructure and health human resource capacity are adequate to meet the needs of communities before devolution occurs.

In this regard, the Panel was also made aware of the unique challenges and importance of the development of health information technology for First Nations and Inuit. Health Canada has implemented the First Nations and Inuit eHealth Infrastructure Program to support the development and adoption of information and communications technology systems that could improve First Nations and Inuit healthcare. However, barriers still exist that impede further implementation, including:

- lack of available funding for eHealth capacity, implementation, and sustainability
- inadequate infrastructure to support eHealth projects, including basic broadband access
- First Nations’ own fragmented healthcare governance structures
- weak communication about eHealth project planning among the First Nations and Inuit Health Branch, provinces and territories, and representatives of First Nations and Inuit

On another front, however, responsibilities are clear. Health Canada’s Non-insured Health Benefits (NIHB) program for registered members of First Nations and eligible Inuit covers various services that are not covered by provincial and territorial plans, such as drugs, dental and vision care, and medical travel. Total program spending in 2013-14 was over $1 billion, including $352 million for medical transportation. While NIHB provides a critical support for First Nations and Inuit, during its consultations, the Panel heard a wide variety of complaints about the program.

“Under the NIHB program with regard to dentistry, we have a predetermination system which is centralized and which takes weeks to provide decisions to dentists. This requires patients with complex issues to travel once for a diagnosis and a second time and possibly more to receive treatment.”

Stakeholder Submission

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xxv As First Nations and Inuit health is a federal program, it was not eligible for Canada Health Infoway funding.
Panel members are aware that the details of administration of these benefits are under review as part of a general assessment of how the First Nations and Inuit Health Branch discharges its responsibilities. However, Panel members remain troubled by the brief glimpse they were given into the state of First Nations and Inuit health and healthcare. The general recommendations offered below are therefore no more than a starting point for what must be a fundamental rethinking of how Canada’s governments work with First Nations and Inuit communities to improve their health services and health status.

Recommendations to the Federal Government

6.1 Through the new Healthcare Innovation Agency of Canada, alongside federal investments from the Healthcare Innovation Fund, promote integrated delivery systems across Canada.

Relevant themes follow:

- Per Recommendation 5.1, support provinces, territories, and regional health authorities in undertaking large-scale projects that implement highly integrated delivery systems that test new forms of payment where care is organized and financed around the needs of the patient.

- Review and identify the best practices in interprofessional shared care, with specific reference to leading integrated delivery models. Promote adaptation, scaling-up and spreading of similar practices in Canadian jurisdictions.

- Develop, implement, and evaluate strategies for ensuring that integrated delivery arrangements in Canada address social needs and determinants of health, protect and promote health, and prevent disease.

- Support provinces, territories, and regional health authorities in adapting, scaling up and spreading partial integration models, e.g. primary care commissioning, portfolio funding for disease management, and assorted bundled payment strategies. Where possible, introduce elements of competition through tendering or bidding for care contracts.

- Support pan-Canadian multi-sectoral collaboration to implement the recommendations of the Canadian Academy of Health Sciences 2014 report Optimizing Scopes of Practice.

- Collaborate with provinces and territories, professional associations and others on a pan-Canadian pay commission to examine the relative value of healthcare services in terms of cost, provider activity and patient outcomes, thereby helping decision-makers evaluate professional roles, payments and prices.

6.2 Through the Canadian Institute for Health Information, in collaboration with interested provinces and territories, and with supplemental support from the Healthcare Innovation Fund as needed, pursue the following priorities:

- Expedite work to develop methodologies adaptable for use in physician capitation payment and in designing integrative or bundled payments based around common episodes of care.

- Accelerate work in the area of patient reported outcome measures (PROMs) and patient costing data, including case costing data, to create national risk-adjusted patient grouping methodologies and other tools.

6.3 Through Health Canada, and its First Nations and Inuit Health Branch, pursue the following priorities:

- Co-create a First Nations Health Quality Council, in partnership with First Nations representatives and patients, and with provincial and territorial governments. This Council would report on the quality and safety of care for First Nations across all sectors and regions. A priority for the First Nations Health Quality Council should be collaboration with CIHI for data development and collection relevant to First Nations (see Recommendation 7.6).
• Co-create a tripartite liaison committee with Inuit representatives and patients, and with the relevant provincial and territorial governments. The mission of this committee would parallel that of the First Nations Health Quality Council.

• Support First Nations leaders, together with willing provinces or territories and other partners, not least the Federal Government to initiate, evaluate and scale up new models of co-governed integrated care in varied locations across Canada. Managed by First Nations, these holistic entities should be modelled on international best practices, such as the Alaska Native Tribal Health Consortium or the Nuka System of Care.

• Facilitate the transfer of federal healthcare delivery programs to interested First Nations communities, working in partnership with First Nations leadership in those communities and the relevant province or territory, while ensuring that service transfers are accompanied by commensurate resources.

• Continuously monitor existing initiatives that transfer responsibility for services, such as the BC First Nations Health Authority, to ensure that devolution strategies are effective, efficient, and equitable.

• Improve the health infrastructure and health human resource capacity on reserve to meet patients’ needs.

• Work with First Nations, Inuit, and other stakeholders to improve the management and responsiveness of the Non-Insured Health Benefits (NIHB) program to enhance access to care through digital technologies and ensure that it provides coverage comparable to other public and private plans.

  o To this end, the federal government should provide quasi-statutory authorities to Health Canada to adjust or expand health benefits offered through NIHB within an overall financial framework set by Parliament.

  o Through the combined resources of the Healthcare Innovation Fund, the Healthcare Innovation Agency of Canada, Health Canada, relevant provincial and territorial partners, First Nations and Inuit communities and others, develop new models of virtual and physical care to mitigate the hardships incurred by patients and families when First Nations and Inuit peoples travel to receive healthcare.
<table>
<thead>
<tr>
<th>Position Branch as the Voice of Physiotherapy</th>
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<tbody>
<tr>
<td>Strategic Partnerships</td>
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<tr>
<td>Organized medicine</td>
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<tr>
<td>Other health professions</td>
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<tr>
<td>Indigenous communities</td>
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<tr>
<td>Regional Health Authorities / LHINs</td>
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<tr>
<td>Increased direct contact with senior /</td>
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<tr>
<td>ministerial decision makers</td>
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<td>Increased grass roots advocacy</td>
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<td>Election readiness</td>
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<td>Government Relations Capacity</td>
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<tr>
<td>Improve Access to Physiotherapy Services</td>
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<td>Increased funding of public PT</td>
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<td>Increased access to Extended Health Benefit</td>
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<td>PT (Private)</td>
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<td>Increase PT coverage limits</td>
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<td>Direct access - no physician referral</td>
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<td>Physiotherapy in disease prevention</td>
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<td>Improved rural and remote access</td>
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<td>Modernize telehealth regulation</td>
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<td>Advanced practice models</td>
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<td>Lead Practice &amp; Funding Reform</td>
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<td>Manage new delivery models using PTA's</td>
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<td>Integration of rehab data in to a</td>
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<td>Improve inter-professional practice</td>
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<td>Better pharmaceutical prescribing (when</td>
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<td>'Choosing Wisely' shared best practices</td>
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<td>Elderly care settings</td>
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<td>Home care</td>
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<td>Community care</td>
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<td>PT direct referral to physician specialists</td>
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<td>Expand scope of practice</td>
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<td>Enhance Public Awareness &amp; Appreciation</td>
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Note: The table entries indicate the level of focus on each issue, with different symbols representing different levels of engagement.
Strategic Considerations

Section 3: The Physiotherapy Market

Physiotherapy Workforce by Jurisdiction 2007 to 2015
Canadian Institute for Health Information

Understanding the Mobility and Rehabilitation Market in Canada
Greg Sutherland, Principle Economist – Conference Board of Canada

Apply Within – The Hottest New Jobs of 2017
Tom Standage – The Economist World in 2017
### Table 12  Physiotherapist workforce, by jurisdiction, Canada, 2007 to 2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Newfoundland and Labrador N</th>
<th>N</th>
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<th>N</th>
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**Notes**

— Data not applicable or does not exist.

For more information regarding collection and comparability of data, refer to the Health Workforce Database, 2015: Methodology Guide on CIHI’s website: [www.cihi.ca](http://www.cihi.ca).
Physiotherapists and physiotherapist assistants in Canada often work in interprofessional teams, where patient outcomes are driven by the work of the team, rather than the performance of the individual professional. However, changes in the public and private health services sector leave many wondering about the stability and future security of the profession. This is perhaps most noted in member concerns about the perceived encroachment of other professionals on the physiotherapy scope of practice, and competition with professions that are present or emerging in the market to offer similar health, mobility and rehabilitation services. To address these concerns, the Canadian Physiotherapy Association partnered with the Conference Board of Canada to define and better understand the overall market for mobility and rehabilitation in Canada.

Given the many different regulated and unregulated professionals working in health, mobility and rehabilitation, the scope of this project was challenging to define, as it included multiple sectors such as fitness or personal trainers and exercise professionals (i.e. fitness and mobility for health and prevention), as well as orthopedic surgeons, sports medicine doctors, physiotherapists, kinesiologists, exercise physiologists, athletic therapists, osteopaths, chiropractors, massage therapists, and occupational therapists.
The Conference Board of Canada was tasked to complete a market analysis on mobility and rehabilitation in Canada that would identify the supply and demand of mobility and rehabilitation professionals, annual spending, costs, trends, and future needs or demand by an aging population. The rationale for this analysis was threefold:

1) To have a definitive statement regarding the size of the mobility and rehabilitation market in Canada to help the Association better advocate for physiotherapy in Canada;
2) Quantify the demand for a range of services recognizing demographic changes, the health status of Canadians and other market drivers, such as the ability to pay; and,
3) Evidence to support an informed vision for the future of the profession that takes into consideration the competition between various professionals working in health promotion and prevention as it relates to mobility, and rehabilitation.

This article helps to paint a picture of the size and scope of the market for mobility and rehabilitation which includes the promotion of healthy, active lifestyles in Canada as well as the supply and demand of regulated and non-regulated health professionals responding to illness and injury.

Defining the Market
A market is a variety of systems, institutions, social relations or infrastructure (physical or virtual) that allows buyers and sellers to interact in order to facilitate an exchange. The rehabilitation and mobility market in Canada is a complex system whereby buyers, which include a wide range of patients and clients, interact with regulated and unregulated health professionals to be physically active or mobile in order to conduct activities of daily living, participate in exercise or sport, improve quality of life or achieve functional independence. As most markets rely on sellers or providers to offer goods and services in exchange for money, this market analysis will measure the size of the rehabilitation and mobility market based on the supply or number of providers in the system.

The ability to measure the size of the rehabilitation and mobility market is challenging because, until now, a definition has not existed. The concept of rehabilitation and mobility is vast and difficult to measure because of the many suppliers of goods and services that sit in multiple market spaces, straddling the line of publicly-funded health providers, private sector business, regulated and unregulated health professionals, and the many areas of practice of those offering physical and virtual goods and services. More easily measured is the supply side of the equation; regulated health professionals who work in mobility or rehabilitation (e.g. physiotherapists, occupational therapists, chiropractors) are registered through professional colleges, which provide a fairly accurate annual measure of workforce supply. Similarly, medical specialists, such as orthopedic surgeons and sports medicine physicians, should be included for their role in mobility and function, and their collaboration with other rehabilitation professionals for the conservative management of pain, improved function and post-surgical rehabilitation.

However, there are many other providers of care that Canadian’s rely on for their health and mobility. For example, one would be remiss to exclude exercise physiologists, rehabilitation assistants such as Physiotherapist Assistants (PTAs) and Occupational Therapist Assistants (OTAs), massage therapists, personal trainers, Kinesiologists and Athletic Therapists in the measure of supply. Unfortunately, indicators for the labour force supply of this group is less defined and requires a mixed method approach that is inclusive of unregulated providers, which is not specific to mobility and rehabilitation.

Table 1: The Rehabilitation and Mobility Market, 2013

<table>
<thead>
<tr>
<th></th>
<th>Total Employed</th>
<th>Chiropractors (%)</th>
<th>Orthopedic Surgeons and Sports Medicine Physicians (%)</th>
<th>Physiotherapists (%)</th>
<th>Occupational Therapists (%)</th>
<th>Massage Therapists (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>178,058</td>
<td>4.9</td>
<td>43.6</td>
<td>10.8</td>
<td>8.1</td>
<td>14.9</td>
</tr>
<tr>
<td>N.L.</td>
<td>2,414</td>
<td>2.7</td>
<td>52.7</td>
<td>10.0</td>
<td>7.6</td>
<td>10.2</td>
</tr>
<tr>
<td>P.E.I.</td>
<td>495</td>
<td>1.6</td>
<td>55.8</td>
<td>12.9</td>
<td>9.7</td>
<td>5.2</td>
</tr>
<tr>
<td>N.S.</td>
<td>5,202</td>
<td>2.7</td>
<td>47.3</td>
<td>11.4</td>
<td>8.0</td>
<td>12.8</td>
</tr>
<tr>
<td>N.B.</td>
<td>3,819</td>
<td>1.8</td>
<td>44.9</td>
<td>12.4</td>
<td>8.5</td>
<td>10.9</td>
</tr>
<tr>
<td>Que.</td>
<td>43,747</td>
<td>3.0</td>
<td>44.3</td>
<td>9.5</td>
<td>8.8</td>
<td>15.6</td>
</tr>
<tr>
<td>Ont.</td>
<td>64,726</td>
<td>7.0</td>
<td>43.9</td>
<td>10.7</td>
<td>7.6</td>
<td>14.2</td>
</tr>
<tr>
<td>Man.</td>
<td>5,696</td>
<td>4.8</td>
<td>45.6</td>
<td>11.8</td>
<td>10.5</td>
<td>18.7</td>
</tr>
<tr>
<td>Sask.</td>
<td>5,076</td>
<td>3.9</td>
<td>40.5</td>
<td>12.9</td>
<td>6.4</td>
<td>18.7</td>
</tr>
<tr>
<td>Alta.</td>
<td>22,501</td>
<td>4.5</td>
<td>40.1</td>
<td>10.3</td>
<td>7.9</td>
<td>17.1</td>
</tr>
<tr>
<td>B.C.</td>
<td>23,648</td>
<td>4.9</td>
<td>43.9</td>
<td>13.0</td>
<td>8.1</td>
<td>13.9</td>
</tr>
</tbody>
</table>

Source: Canadian Institute for Health Information; Statistics Canada.
Physiotherapy in Canada: Supply
Supply-side economics is a macroeconomic theory which argues that economic growth can be most effectively created by investing capital and lowering barriers to accessing goods and services. The delisting of physiotherapy from provincial and territorial health insurance plans in the early 2000’s may be seen as a macroeconomic shift in the market, reducing barriers to access to physiotherapy through the increase in professionals in the private sector. One may debate the impact of this policy on the population as a whole, but the result has been a significant increase in the supply of availability of physiotherapy to Canadians. This is perhaps best measured by the fact that physiotherapist employment has risen sharply in the past few years.

According to CIHI data, there were approximately 20,130 physiotherapists employed in Canada at the end of 2014. This represents a 3.1 per cent average annual growth rate since 2009. Broken down by region, Newfoundland and Labrador and Saskatchewan experienced the strongest average annual growth in physiotherapists, at 5.5 per cent and 4.8 per cent, respectively. Meanwhile, Nova Scotia saw the slowest average annual growth in physiotherapists during that time (1.7 per cent), with Manitoba experiencing a decline in the number of physiotherapists since 2009.

Chart 1 shows the regional breakdown of physiotherapists across Canada. As a proportion of the population, British Columbia has the most physiotherapists (6.86 per 10,000 adult population), followed by Nova Scotia and New Brunswick at 6.48 per 10,000 adult population. Saskatchewan and Alberta are also above the Canadian average of 5.66 per 10,000 adult population. The proportion of physiotherapists is lowest in Newfoundland and Labrador and Prince Edward Island. Compared with the provinces, Yukon is a special case; in 2014 there were only 36 physiotherapists registered in the territory, but statistically there was greater proportional access to physiotherapy than anywhere in Canada with 973 physiotherapists per 10,000 adult population.

Looking at demographics, just over 75 per cent of all physiotherapists are female, which is consistent across all provinces. However, males commonly hold full-time positions—about 94 per cent of males work full-time compared with only 77 per cent of females. Generally, a full-time equivalent (FTE) physiotherapist works between 1,500 and 1,750 hours in a year, depending on the province. However, the amount of hours worked suggests that many physiotherapists are putting in extra time. Approximately 38.1 per cent of physiotherapists in Canada worked more than 1,750 hours in 2014. Physiotherapists in Ontario and Manitoba have the highest proportion working more than 1,750 hours (43.8 per cent and 42.4 per cent, respectively) than the other provinces/territories (Quebec data is not available).

The area of practice for physiotherapists in most provinces/territories is split between General practice and Musculoskeletal practice. Normally, General practice is defined as services on a range of general physical health issues, while Musculoskeletal includes sports medicine, orthopedics, rheumatology, burns and wound management, plastics and pelvic floor. Typically, these two areas comprise 70 to 80 per cent of the physiotherapy areas of practice in most provinces and the territories. The remainder is distributed between Neurological and Non-Clinical practice. Neurological practice includes neurology and vestibular rehabilitation, while Non-Clinical practice includes client service management, consultant, administration, teaching, continuing education, other education, research and sales.

Demand for Physiotherapy
The demand for physiotherapy is also on the rise. Statistics show that there were

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Table 2: Physiotherapist Supply and Demand, 2014

<table>
<thead>
<tr>
<th>Canada</th>
<th>Consulations with a Physiotherapist (per 10,000 population)</th>
<th>Number of Physiotherapists (per 10,000 population)</th>
<th>Number of Patients per Physiotherapist</th>
<th>Average Number of Visits</th>
<th>Total Consulations per Physiotherapist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>1,157</td>
<td>5.7</td>
<td>204</td>
<td>8.2</td>
<td>1,682</td>
</tr>
<tr>
<td>N.L.</td>
<td>1,075</td>
<td>4.8</td>
<td>224</td>
<td>9.0</td>
<td>2,011</td>
</tr>
<tr>
<td>P.E.I.</td>
<td>1,270</td>
<td>6.4</td>
<td>289</td>
<td>8.3</td>
<td>2,398</td>
</tr>
<tr>
<td>N.S.</td>
<td>1,398</td>
<td>6.5</td>
<td>216</td>
<td>9.5</td>
<td>2,049</td>
</tr>
<tr>
<td>N.B.</td>
<td>1,353</td>
<td>6.5</td>
<td>191</td>
<td>7.6</td>
<td>1,441</td>
</tr>
<tr>
<td>Que.</td>
<td>1,041</td>
<td>5.3</td>
<td>196</td>
<td>8.0</td>
<td>1,556</td>
</tr>
<tr>
<td>Ont.</td>
<td>1,078</td>
<td>5.4</td>
<td>198</td>
<td>9.0</td>
<td>1,783</td>
</tr>
<tr>
<td>Man.</td>
<td>1,377</td>
<td>5.4</td>
<td>256</td>
<td>7.3</td>
<td>1,862</td>
</tr>
<tr>
<td>Sask.</td>
<td>1,296</td>
<td>6.0</td>
<td>217</td>
<td>6.8</td>
<td>1,458</td>
</tr>
<tr>
<td>Alta.</td>
<td>1,161</td>
<td>5.8</td>
<td>200</td>
<td>7.2</td>
<td>1,437</td>
</tr>
<tr>
<td>B.C.</td>
<td>1,446</td>
<td>6.9</td>
<td>211</td>
<td>8.0</td>
<td>1,679</td>
</tr>
<tr>
<td>Yukon</td>
<td>1,163</td>
<td>9.7</td>
<td>119</td>
<td>4.4</td>
<td>525</td>
</tr>
</tbody>
</table>

Source: Canadian Institute for health information; Statistics Canada.
approximately 3.5 million consultations with a physiotherapist by Canadians in 2014. This is up from just under 2.2 million visits in 2001, an increase of 3.8 per cent per year. By way of comparison, Canada’s adult population (those 15 years of age and older) has climbed by an average of 1 per cent since 2001. Physiotherapists see an average of 1,680 patients in a year mostly as repeat visits as part of a physiotherapy program (each patient averages about 8.2 visits per year). As is evident in table 2, some provinces exceed this average. With a FTE physiotherapy position normally requiring 1,500 to 1,750 hours per year, physiotherapists appear to work enough hours to satisfy patient visits, but have little time for training and administration work (presuming each session lasts approximately one hour).

But it is not as if there is a surplus of physiotherapists to help alleviate the rising demand. Even with 20,130 physiotherapists employed in Canada in 2014, there remain only 530 that are not employed in the field. Of this, a mere 10 per cent (or 60 physiotherapists) were unemployed and seeking employment in physiotherapy. Taking these figures into account, the unemployment rate for physiotherapists is about 1 per cent (for those seeking employment overall) and the unemployment rate of the profession (those seeking employment as a physiotherapist) at 0.3 per cent. This compares with about 6.9 per cent for all occupations in Canada as a whole in 2014. In economic terms, this low unemployment rate would be categorized as frictional and actually suggests there is a shortage of physiotherapists in the country as a whole.

Unemployment rates, however, do not take into account vacancy rates for occupational categories and it appears there are not a significant number of physiotherapist vacancies. For Canada as a whole, the job vacancy rate for all occupations is 2.2 per cent. In the physiotherapy profession, that figure is 2 per cent, so there are slightly fewer vacancies in physiotherapy than all other professions combined. Although reliable data in not available for all provinces, the regional breakdown shows that the physiotherapist vacancy rate in most provinces is below the national figure. Incidentally, British Columbia is the only province which is higher at 3.5 per cent, meaning there are more vacancies in the physiotherapist profession than all other professions combined.

What should be noted are the significant challenges related to recruiting physiotherapists to non-urban centres. In August 2av014, the Physiotherapy Association of British Columbia reported vacancies across British Columbia reached 267 positions (last audited by the profession in 2013). These 267 vacancies represent a substantial gap between the 2,897 practicing physiotherapists and the need for at least ten percent more physical therapists to fill the immediate need. At this time, the physical therapy community of British Columbia urged the Ministry of Advanced Education to immediately expand the UBC Physical Therapy Department to 132 seats through a distributed model that better addresses the challenges for Fraser Health and Northern British Columbia. There is evidence to suggest this model would provide the expanded and more stable physical therapy workforce to meet the urgent service needs of these regions.

British Columbia is not alone in its challenges of filling vacancies in rural and remote regions. The Manitoba Physiotherapy Association has made it a top priority to improve access to physiotherapy in rural and remote parts of the province as there are only a handful of publicly-funded physiotherapists outside the Winnipeg region. Nova Scotia is also fearful of the impact of vacancies on access to necessary services, as vacancies tend to disappear if not filled. This is not a solution to health human resource planning. Unfortunately, nearly all of Canada’s physiotherapists (90 per cent) are employed in an urban area., However, urban areas comprise only 3.6 per cent of Canada’s geography, and so the remaining 10 per cent of the physiotherapists in Canada service about 90 per cent of the country’s land mass which creates significant challenges to meet the mobility and rehabilitation needs of Canadians.

What does this mean? A steadily increasing supply of physiotherapists in Canada, low unemployment rates, and a stable, if not increasing, demand for physiotherapy in Canada paints a positive picture for the profession. The sizeable market share, 11 per cent of the national market, also suggests there is strong representation for physiotherapy nationally, and the profession has benefitted from the liberalization of the market in the early 2000s, which increased access for patients in the private sector. Given the indicators examined, one could surmise that while there is competition in the market, physiotherapy can be positioned as a strong player that compliments the range of health services to enhance the mobility of Canadians. With an aging population, there will likely be an increase in the demand for health services that cater to mobility and rehabilitation in order to keep Canadians moving, which physiotherapy can certainly benefit from.
The kinesiologist figure was calculated using NOC code 3144, which includes more than just kinesiologists. As a result, the number presented is an overestimation.

Canadian Institute for Health Information, Physiotherapists, 2014.

Statistics Canada, CANSIM table 282-0082.

Canadian Institute for Health Information, Physiotherapists, 2014.


Physiotherapy Association of British Columbia. 2014. Shortage of Physical Therapists in BC.

Canadian Institute for Health Information, Physiotherapists, 2014.
Apply within

Tom Standage has a stab at identifying the hottest new jobs of 2017

Fears abound that robots are about to cause mass unemployment. But so far there is no sign of this. Instead, automation seems to be pushing people from routine jobs, such as factory work, into non-routine ones, particularly those that require cognitive and social skills. Technological progress will cause a shift in the nature of jobs available and the skills they require.

It is impossible to know for sure what these new jobs will be—the Luddites who campaigned against the mechanisation of weaving in the early 19th century could not have imagined that new fields such as railways, telegraphy and electrification were coming. But two tools can help us take a stab at identifying the jobs of the near future: hard-nosed statistics, and predictive intuition.

First, the statistics. America's Bureau of Labour Statistics helpfully produces a survey every two years that extrapolates current trends to predict the growth rates of different job categories (most recently for 2014-24). So which are growing fastest?

At the top, with 108% growth, is the job of wind turbine service technician. This is not surprising, given the rapid expansion of renewable energy, a trend that seems likely to continue for several decades. There will be a lot more wind turbines in future, and they will need to be fixed when they go wrong.

Another multi-decade trend sure to generate jobs is the ageing of populations in many countries. This is creating jobs for occupational-therapy assistants (+43%), physical-therapy assistants (+41%), home-health aides (+38%), audiologists (+29%), hearing-aid specialists (+27%) and optometrists (+27%). These are all tasks that require empathy and social skills.

In business, companies are accumulating more and more data about their customers and operations, and being able to extract insights from this information provides a competitive advantage. So it is little surprise to see statisticians (+34%) and operations-research analysts (+30%) on the list of fastest-growing professions.

In medicine, the plunging cost of genetic sequencing is opening up new possibilities for research and treatment—but can also reveal to patients that their genetic inheritance contains unpleasant surprises. This explains the growing demand for genetic counselors (+29%) to provide advice and support.

Yet these statistics are necessarily limited to measuring the growth rates of job categories that already exist. Imagining the completely new types that might emerge requires guesswork.

An emerging trend is the practice of dealing with companies and online services through conversational interfaces—speech or text messages. Apple's Siri, Amazon's Alexa and Microsoft's Cortana are the most prominent examples, but many companies are creating corporate "chatbots" that can respond to customer-service queries or dispense information. Rather than visiting an organisation's website, you may end up talking to its bot instead. Just as websites need designers and programmers, bots will need specialists to devise their business rules, write their dialogue and keep them up to date: a job category that might collectively be termed bot-wranglers. Already, there is talk of Silicon Valley firms hiring poets and comedians to write elegant, witty banter for conversational computer systems.

Wanted: bot-wranglers and virtual-fashion designers

Meanwhile autonomous vehicles, or drones, are taking to the air and to the roads. Drones are already being used in agriculture, wildlife conservation, scientific research and humanitarian relief. They will need armies of support staff and technicians.

The need to feed growing urban populations is leading to rapid progress in hydroponic and aeroponic food production in closely controlled environments, creating new jobs for indoor farmers. The combination of biology with three-dimensional printing is being exploited by synthetic-tissue engineers to create replacement human organs. And though the field is still in its infancy, expect augmented reality—the overlaying of computer graphics on the real world—to create demand for virtual-fashion designers to create jewellery, clothing and accessories with which to adorn yourself digitally.

Inspired by Isaac Asimov's classic robot stories, my 16-year-old daughter wants to be a robopsychologist—a trouble-shooter who figures out why robots are misbehaving. "That job doesn't exist," complained her school's career adviser. "True," my daughter replied, "but it probably will in 2025."