

Planning for the Future Health Workforce of Ontario

The McMaster Health Forum

For concerned citizens and influential thinkers and doers, the McMaster Health Forum strives to be a leading hub for improving health outcomes through collective problem solving. Operating at regional/provincial levels and at national levels, the Forum harnesses information, convenes stakeholders and prepares action-oriented leaders to meet pressing health issues creatively. The Forum acts as an agent of change by empowering stakeholders to set agendas, take well-considered actions and communicate the rationale for actions effectively.

About citizen panels

A citizen panel is an innovative way to seek public input on high-priority issues. Each panel brings together 10-16 citizens from all walks of life. Panel members share their ideas and experiences on an issue, and learn from research evidence and from the view of others. The discussions of a citizen panel can reveal new understandings about an issue and spark insights about how it should be addressed.

About this brief

This brief was produced by the McMaster Health Forum to serve as the basis for discussions by the citizen panel on how to plan for the future health workforce of Ontario. This brief includes information on this topic, including what is known about:

- the underlying problem;
- three possible elements of an approach to address the problem; and
- potential barriers and facilitators to implement these elements.

The three elements of an approach to address the problem have been informed from available evidence and conceptual frameworks, and have been selected in consultation with the steering committee that oversaw this project and with a number of key informants.

A glossary has been provided that defines terms frequently used in the brief; this tool may be helpful to refer back to while reading.

This brief does not contain recommendations, which would have required the authors to make judgments based on their personal values and preferences.

Table of Contents

Key Messages	1
Questions for the citizen panel	2
The context: Why is planning for the future health workforce a high priority?	5
What is health workforce and health workforce planning?	6
What current and future considerations are important for health workforce planning in Ontario?	10
The problem: Why is health workforce planning challenging?	12
The healthcare needs of Ontarians are constantly evolving, which makes future health workforce requirements uncertain	13
Current approaches to workforce planning do not reflect the realities of Ontario's changing health system	13
The way the health system is organized makes it difficult to plan for future health workforce needs	14
Political factors also make it difficult to plan for the health workforce over the long term	16
Elements of an approach to address the problem	17
Element 1 — Determine the current and future health needs of Ontarians and describe the types of care that can best meet those needs	18
Element 2 — Establish the best ways to organize care and the health workforce required to meet Ontarians' health needs, while taking into account the economic realities in the province	21
Element 3 — Select the appropriate policy levers to meet health workforce planning objectives	23
Implementation considerations	25
Acknowledgments	30
References	31

Key Messages

What's the problem?

The introduction of the Patients First initiative in Ontario aims to improve access to healthcare services, make services more connected and supportive, and protect the universal health system. This will require planning to determine health workforce needs, which will be challenging because:

- the healthcare needs of Ontarians are constantly evolving, which makes future health workforce requirements uncertain;
- current approaches to workforce planning do not reflect the realities of Ontario's changing health system;
- the way the health system is organized makes it difficult to plan for future health workforce needs; and
- political factors also make it difficult to plan for the health workforce in the long term.

What do we know about elements of a potentially comprehensive approach for addressing the problem?

- **Element 1** Determine the current and future health needs of Ontarians and describe the types of care that can best meet those needs
 - O Little research evidence is available, but we know that it is important to make sure there is an appropriate meeting environment, mix of participants and use of research when engaging stakeholders in collective decision-making
- Element 2 Establish the best ways to organize care and the health workforce required to meet Ontarians' health needs, while taking into account the economic realities in the province
 - O Little research evidence was identified, with inconclusive results about whether some of the approaches currently used (e.g., staffing ratios) are effective for planning
- **Element 3** Select the appropriate policy levers to meet health workforce planning objectives
 - Available research evidence suggests that: 1) how you pay health workers is important, but isn't the only factor that affects their decisions; 2) training professionals in rural settings is promising for recruitment and retention in rural areas; and 3) it is important to keep health professionals engaged in decision-making

What implementation considerations need to be kept in mind?

The introduction of Patients First has introduced a window of opportunity for improving health workforce planning in the province, given its emphasis on system transformation. However, a number of implementation barriers exist, such as the resources required, and engaging stakeholders constructively.

Questions for the citizen panel

>> We want to hear your views about a problem, three elements of a potentially comprehensive approach to addressing it, and how to address barriers to moving forward.

This brief was prepared to stimulate the discussion during the citizen panel. The views and experiences of citizens can make a significant contribution to finding the best ways to meet their needs. More specifically, the panel will provide an opportunity to explore the questions outlined in Box 1. Although we will be looking for common ground during these discussions, the goal of the panel is not to reach consensus, but to gather a range of perspectives on this topic.

Box 1: Questions for citizens to consider

Questions related to the problem

- What are the health workforce planning challenges in Ontario that matter most to you and why?
- What are the health workforce planning challenges in Ontario that will be most important for health system policymakers and planners to address and why?

Questions related to the elements of a potentially comprehensive approach to address the problem

- Element 1 (Determine the current and future health needs of Ontarians and describe the types of care that can best meet those needs)
 - What do you think the most important health needs are in Ontario today? What will they be in five years? In 25 years?
 - o To help inform planning, what do you think are the key ways that the health workforce needs to adapt to address the health challenges of today?
 - How should we decide about the types of care (i.e., the 'functions') that are best able to meet the health needs of Ontarians?
 - What would make decision-making processes trustworthy?
 - Who should be included in decision-making processes?
 - What should the role of citizens be in decision-making processes?
 - What should the role of stakeholder groups be in decision-making processes?
- Element 2 (Establish the best ways to organize care and the health workforce required to meet Ontarians' health needs, while taking into account the economic realities in the province)
 - What do you think could be done differently to organize the health workforce to better meet the needs of Ontarians?
 - What features of care should be retained if changes are made?
 - What do you think is the best way to support needed changes in the province (e.g., through central planning at the provincial level, regional planning by the LHINs or natural evolution based on innovation at the community level)?
- Element 3 (Select the appropriate policy levers to meet health workforce planning objectives)
 - O What kinds of policy changes do you think are required to help Ontario meet its health workforce planning goals (e.g., changing the supply, mix and distribution of health professionals versus changing how professionals are trained versus changing how professionals are paid)?
 - What role do you think patients and citizens in Ontario should play in supporting policymakers and planners in bringing about the changes in the system required to meet health workforce planning goals?

Question related to implementation considerations

• What are the biggest barriers to pursuing the elements? What are the biggest opportunities that could help to implement the elements?

Box 2: Glossary

Health workforce

All of the people in the health system who are engaged in actions to enhance health, through the delivery of programs and provision of services.(1)

Patient-centred care

Care that is respectful of and responsive to individual patient preferences, needs and values, and that ensures patient values guide all decisions.(2)

Primary care

"Level of a health service system that provides entry into the system for all new needs and problems, provides person-focused (not disease-oriented) care over time, provides care for all but very uncommon or unusual conditions, and co-ordinates or integrates care provided elsewhere by others."(5)

Home and community care

Services to help people receiving "care at home, rather than in a hospital or long-term care facility, and to live as independently as possible in the community. Home and community care is delivered by regulated health care professionals (e.g., nurses), non-regulated workers, volunteers, friends and family caregivers."(7)

Interprofessional team

Multiple healthcare professionals who work collaboratively to deliver the best quality of care in every healthcare setting.(9)

Private practice/public payment core bargain

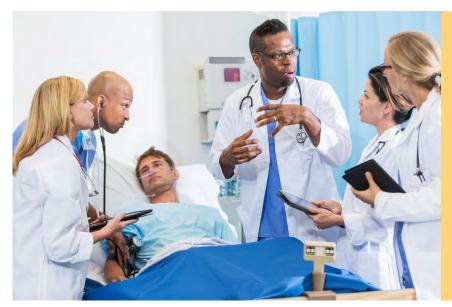
One of two arrangements that underpin medicare where a contract, or bargain, is made between physicians and the Ontario Ministry of Health and Long-Term Care. This contract applies to physicians who work in private practice and are paid on a fee-for-service basis.

Full scope of practice

Full scope means that healthcare professionals are "practicing the full range of skills for which they have been trained and are competent to perform." (11)

Policy levers

The instruments available to policymakers to bring about intended changes in individual or group behaviour in order to achieve policy goals (e.g., changing physician payment).



The health workforce needs in Ontario will continue to evolve alongside changes in the health system

The context: Why is planning for the future health workforce a high priority?

In the past decade, significant progress has been made towards improving the health of Ontarians, who are now living longer and with better access to a wide range of healthcare services. However, efforts to ensure continued progress in the province face several challenges, including:

- a rapidly aging population;
- an increase in the number of people living with one or more chronic conditions;
- an increase in demand for intensive (and expensive) acute care services, as well as for expensive cutting edge technologies and drugs; and
- a growing need and demand for services provided in home and community settings.

These challenges require the health system in Ontario to adapt. A recent government initiative called Patients First focuses on four objectives that will help transform the health system in light of these challenges: 1) improve access; 2) connect services; 3) support people and patients; and 4) protect the universal public health system.(14)

In meeting the objectives of the Patients First initiative, the health system in Ontario needs the right mix, supply and distribution of health professionals to ensure that Ontarians get the most appropriate programs, services and drugs where and when they need them. Unfortunately, getting this right can be complicated, particularly given the following issues:

- the mix, supply and distribution of health professionals in Ontario is constantly evolving;
- health professionals are not employees of the government, but rather work independently and are either paid for their work by billing the government (e.g., physicians) or work under contract with health care organizations (e.g., nurses and other non-physician health providers working in hospitals);
- new types of health professional roles are being created in the province (e.g., physician assistants), while the roles of existing health professionals are being expanded to address specific needs in the province (e.g., nurses are increasingly taking on tasks traditionally performed by physicians in underserved areas); and
- the way care is organized and delivered needs to continually change to align with shifts in population needs while building on technological advances in medicine.

Furthermore, policymakers and planners are not starting with a blank canvas. They need to take into account how health workforce planning has been done in the past, its current characteristics, and the factors that are likely to influence future planning approaches.

There is a need for a public conversation about planning for the future health workforce of Ontario, given the implications of decisions about this topic for how patients and citizens will interact with the health system, as well as who they will interact with. This citizen panel is a unique opportunity to have your voice heard on this pressing issue.

What is health workforce and health workforce planning?

As defined by the World Health Organization, health workers are "all people engaged in actions whose primary intent is to enhance health." (16) A health workforce, therefore, is comprised of all of the health workers in a particular health system, including the nurses, physicians and other health professionals responsible for delivering programs and services to the population. In Ontario, there are 26 health professions that are regulated, including nurses, physicians, pharmacists, dentists, optometrists, occupational therapists, and chiropractors. (17) There are also unregulated care providers, such as personal support workers, who are playing an increasingly important role delivering programs and services. Box 3 provides a brief overview of the health workforce in Ontario, pointing out some of the trends in the number of professionals (supply), types of providers (mix) and locations of practice (distribution) that have been observed in recent years.

Planning for the Future Health Workforce of Ontario

Health workforce planning involves analyzing, evaluating and forecasting for the right supply, mix and distribution of health workers in a healthcare system. According to the World Health Organization, planning includes "short- and long-term targets and cost estimates for scaling up education and training for health workers, reducing workforce imbalances, strengthening the performance of staff, improving staff retention and adapting to any major health sector reforms, while also being harmonized with broader strategies for social and economic development."(16)

There is no single 'correct' approach for health workforce planning. Over time, three different types of approaches have become the most common:

- 1) **utilization-based planning**, in which plans for the future health workforce are based on current system needs (e.g., by looking at how many patients have used each service in the healthcare system over a set period of time, and which health professionals were involved in delivering these services);
- 2) **needs-based planning**, in which plans for the future health workforce are based on estimated health needs in a specific population (e.g., by looking at population health trends and determining what services will be needed to prevent, treat or manage any illnesses); and
- 3) **effective demand-based planning**, in which plans for the future health workforce take economic considerations (e.g., economic growth) into consideration alongside population health needs.

Various approaches to health workforce planning exist across Canada. In Alberta and British Columbia, planning is done using a utilization-based approach that takes into account factors such as:

- the number and type of current providers;
- the number of new and projected graduates;
- the number of health workers re-entering the workforce or coming in from other provinces or as a result of immigration; and
- the number of health workers leaving the workforce due to retirement or to practise in other provinces, etc.(18-22)

Saskatchewan uses a combined utilization-based/needs-based approach. This includes looking at the current demand for services as well as the number of current and incoming providers.(23)

Internationally, there are also a number of different approaches to health workforce planning that have been adopted:

- France and the United States follow a utilization-based approach (with some adjustments in the U.S.);(24-26)
- Belgium follows a combined utilization-based/needs-based approach (and takes into account, among other factors, the activity level by age and gender, population health needs and societal evolution);(26-28)
- New Zealand follows a needs-based approach (and focuses on factors such as population health needs, functions and providers required to meet these needs, and qualitative and quantitative information about the health workforce);(29) and
- England uses a needs-based approach combined with effective demand.(26;27)



Box 3: Overview of the health workforce in Ontario

- There has been an increase in the total number of health professionals in Ontario over the last 10-15 years, although trends are different for each specific type
- Nurses are the largest group of health professionals in Ontario, with 137,525 practising in the province as of 2015 (3;4)
 - The number of nurses declined by 3% from 2012 to 2014, although there has been an increase in certain subgroups such as nurse practitioners (NPs) which increased by 17%, and registered practical nurses (RPNs) which increased by 3% (6)
- Physicians are the second largest group of health professionals in Ontario, with 28,642 practising in the province as of 2016 (49% family physicians and 51% specialists)(8)
 - The number of total physicians in the province is expected to continue to rise
- There have been significant increases in the number of other regulated healthcare professions in Ontario
 - The number of midwives increased by 89% between 2008 and 2015, from 403 to 762 (10)
 - The number of pharmacists increased by 32% between 2008 and 2014, from 11,426 to 15,113 (10)
 - The number of dietitians increased by 27% between 2008 and 2015 from 2,906 to 3,695 (10;12)
- A number of new health professional roles have been established, the most recent of which includes the introduction of more than 200 physician assistants (PAs) who are working in interdisciplinary teams in a range of healthcare settings, alongside physicians, nurses and other health professionals (13)
- Non-regulated health workers such as physician assistants and personal support
 workers in long-term care settings, are an important component the health workforce
 in Ontario, and their role is becoming more formalized, with nearly 100,000 personal
 support workers currently employed in Ontario (15)

Box 4: Features of the health system in Ontario you may not know about

- Medical care provided in and with hospitals and by physicians is fully paid for as part of Ontario's publicly funded health system (often referred to as the 'core bargain').
- Care and support provided by other healthcare providers such as nurses, physiotherapists, occupational therapists and dietitians are typically not paid for by the health system unless provided in a hospital or long-term care setting, or in the community through Family Health Teams, Community Health Centres and community and other designated clinics.
- Other healthcare and community services such as prescription drug coverage, community support services and long-term care homes may be partly paid for by the health system, but any remaining costs need to be paid by patients or their private insurance plans.
- Fourteen geographically defined Local Health Integration Networks (LHINs) have responsibility for the planning and funding of healthcare in their regions, and for ensuring that the different parts of the health system in their regions work together.

What current and future considerations are important for health workforce planning in Ontario?

Of the three common approaches to health workforce planning outlined above (utilization-based, needs-based, and effective demand-based), Ontario has historically used the 'utilization-based' approach. These efforts have generally been spearheaded by the Ministry of Health and Long-Term Care and mostly focused on the number and location of physicians in the province.

However, in the last decade and a half, things have started to shift as a result of the following developments:

- HealthForceOntario was established by the Government of Ontario to bring together planners from the Ministry of Health and Long-Term Care and the Ministry of Training, Colleges and Universities to focus on the recruitment and retention of health professionals in the province;
- approaches to planning have begun to regularly consider current and future population health needs, not just the existing health workforce; and

Planning for the Future Health Workforce of Ontario

• the focus of planning now includes the nursing workforce and other regulated health professionals, not only physicians.

Despite these changes, it is important to consider that there is a full range of issues that need to be addressed when assessing current and future health workforce needs, which include (as we will return to in the elements section of the citizen brief):

- 1) the current and future health needs of the population;
- 2) the health system functions (i.e., the types of care) required to meet the needs of the population;
- 3) the models of care delivery that could be adopted to organize functions;
- 4) the healthcare providers that could perform these functions; and
- 5) the range of factors that could change what constitutes the right mix of delivery models and healthcare providers in a given context.

Furthermore, a number of developments that will influence how to plan for the health workforce are anticipated in Ontario's health system alongside (and in some cases as a result of) the implementation of the Patients First initiative, including:

- the establishment of regional, population-based planning processes in primary care, home and community care, long-term care, and public health;
- the shifting of many services from acute-care settings (i.e., hospitals) to home and community settings;
- the integration of a wider range of healthcare professionals (e.g., dietitians, midwives and physiotherapists working alongside doctors and nurses) into teams to provide comprehensive primary-care services, supported by a range of technologies (e.g., electronic health records, online referral systems, telehealth and telemedicine);
- a focus on treating only the most ill and complex patients in hospitals, and the shifting of low-risk, routine specialty care services (e.g., cataract surgeries) to community-based facilities; and
- an increasing level of integration across sectors that means health workers will be involved in providing care in more diverse settings (e.g., long-term care facilities may draw on health workers, such as nurses, who traditionally work in primary care).

These changes, and particularly the move towards greater system integration, suggest the system is being designed to function as one integrated whole. Workforce planning approaches in Ontario will need to adjust to reflect these new realities.



Existing
approaches to
health
workforce
planning could
be improved to
account for the
changing health
needs of
Ontarians

The problem: Why is health workforce planning challenging?

Many challenges confront those engaged in health workforce planning, with the key dimensions of the problem being:

- the healthcare needs of Ontarians are constantly evolving, which makes future health workforce requirements uncertain;
- current approaches to workforce planning do not reflect the realities of Ontario's changing health system;
- the way the health system is organized makes it difficult to plan for future health workforce needs; and
- political factors also make it difficult to plan for the health workforce over the long term.

The healthcare needs of Ontarians are constantly evolving, which makes future health workforce requirements uncertain

As anywhere else in the world, Ontarians have continually changing healthcare needs. This uncertainty as to what will be needed makes it challenging to determine what an appropriate future health workforce will look like. While accounting for these shifts will always be a challenge for health system policymakers and planners, they need to be considered to ensure there is an alignment between the health workforce we have in the province (i.e., the supply) and the types of care patients need (i.e., the demand). Some of the most important changes and sources of uncertainty that complicate health workforce planning include:

- Ontarians are living longer than ever before, with nearly 15% of the province's population aged 65 or older as of 2011 (a number that is expected to double in the next two decades);(30;31)
- an increasing number of Ontarians living with at least one, and sometimes multiple, chronic illnesses (e.g., cancer, diabetes and heart disease) requires greater responsiveness in anticipating the services, supports and access to providers that individuals will need; (5;31;32)
- an increasing preference for services provided at home;(33)
- a growing reliance on 'informal' care providers, such as family and friends, who may also require supports (e.g., respite services);(33) and
- technological advances that have made it possible to perform certain procedures with lower risk to the patient, with greater efficiency, and with the support of fewer health workers than ever before (e.g., laparoscopic techniques versus open abdominal surgery), and that will shift where care is provided (e.g., hospitals versus primary care and community settings), as well as by whom care is provided (e.g., specialists versus nurses versus patient self-management).(34;35)

Current approaches to workforce planning do not reflect the realities of Ontario's changing health system

There are at least three reasons why current approaches to health workforce planning are not an accurate reflection of the realities of the province's evolving health system. The first is that new and emerging models of care are not accounted for in existing approaches to health workforce planning. Specifically, existing approaches are often focused heavily on planning for the physician and nursing workforce, without considering:

- the full range of regulated health professionals who are involved in care alongside them (e.g., pharmacists and dietitians);
- innovative models of care that are increasingly being introduced across the province (e.g., interdisciplinary primary-care teams);
- non-regulated health workers who are playing larger roles in patient care (e.g., personal support workers and physician assistants); and
- how integrating services across sectors (e.g., primary care and long-term care) influences the province's health workforce needs.

The second reason is that the health workforce practising outside of traditional physicianled and hospital-based care (i.e., the 'core bargain') is expanding, but largely unaccounted for in approaches to planning. For example, the distribution of pharmacists in the province is influenced by decisions made by the large pharmacy chains such as Shoppers Drug Mart and Rexall, about where to establish their retail locations, rather than by population health needs.

The third reason is that healthcare workforce planning also needs to consider how the economy is performing (or is expected to perform), which isn't explicitly considered in Ontario's planning models.(36) This is important because it helps to establish what is possible to achieve within budget constraints.

The way the health system is organized makes it difficult to plan for future health workforce needs

Aspects of how the health system is governed (i.e., who makes decisions), how it is organized financially (i.e., how revenue is raised, how organizations are funded and professionals are paid), and how it organizes the delivery of care also creates challenges in planning for the future health workforce in the province. These challenges are described in greater detail in Table 1.

Planning for the Future Health Workforce of Ontario

Table 1. Challenges related to the way the health system is organized

Challenge	Example/description of the challenge
How the system is governed	 The 'core bargain' of public payment and private practice, along with professional self-regulation, leave few policy levers available to policymakers and planners with which to initiate sustainable change Health workforce planning is done largely in isolation by each province, even though health workers in Canada have inter-provincial mobility (e.g., they can move between health systems if they prefer conditions in one over another) Health professionals are regulated based on what they can or cannot do (i.e., their competencies and tasks), not on how they actually practise, which varies depending on where they work (rural versus urban) and with whom (teams or in solo practice) Health worker training programs do not always align with the realities of how care is delivered, resulting in health professionals who are 'over-trained and under-practising'
 To a large extent, the Government of Ontario is limited to using final policy levers (particularly organizational funding and provider remure to bring about system-level change The separation between the planning and oversight of remuneration physician services through the Ontario Health Insurance Plan (OHIP) planning and oversight for other professionals providing non-physic services (mostly done by Local Health Integration Networks) makes challenging to coordinate health workforce planning 	
How the system organizes the delivery of care	 New team-based approaches are being adopted to deliver care in many sectors, but existing planning approaches do not take their introduction or scale-up into account when determining health workforce needs There is limited capacity within government to undertake sophisticated health workforce planning exercises, and existing in-house staff with the skills have many competing priorities that don't allow them to focus on this work The 'core bargain' has established physicians as 'small business owners' who have control over the supply of their labour, including how many hours they work, where they work, and when they retire, making it difficult to plan for the optimal supply, mix and distribution The distribution of physicians across the province favours urban areas, which has historically resulted in challenges with access for those living in rural and remote communities

Political factors also make it difficult to plan for the health workforce over the long term

Two political factors are worth mentioning as potential challenges for future workforce planning. First, decisions about the health system (and the health workforce) are often made by politicians operating with short time horizons (i.e., four-year election cycles) and under significant pressure from provider (i.e., interest) groups. Second, a history of 'turf wars' is often acknowledged in Ontario,(37) wherein scopes of practice are contested to protect professional interests, rather than to better align how care is delivered to patients.





A comprehensive approach to health workforce planning will require the consideration of a number of elements

Elements of an approach to address the problem

>> To promote discussion about the pros and cons of potential solutions, we have selected three elements of an approach to planning for the future health workforce in Ontario

Many approaches could be selected as a starting point for discussion. We have selected the following three elements of an approach for which we are seeking public input:

- 1) determine the current and future health needs of Ontarians and describe the types of care that can best meet those needs;
- 2) establish the best ways to organize care and the health workforce required to meet Ontarians' health needs, while taking into account the economic realities in the province; and
- 3) select the appropriate policy levers to meet health workforce planning goals.

These elements should not be considered separately. Instead, each should be considered as contributing to a potentially comprehensive approach to addressing the problem. New elements could also emerge during the discussions.

Element 1 — Determine the current and future health needs of Ontarians and describe the types of care that can best meet those needs

Overview

This element can be considered the first step in building a new process for future health workforce planning 'from the ground up.' It is focused on clearly defining the health needs of Ontarians today and into the future, and will require good data about population health and strategies to engage clinical experts, health professionals, and health-system stakeholders to collectively establish the types of care required to meet those needs. Specifically, the following sub-elements could be pursued:

- 1) using population health and health system data to determine health needs (and unmet health needs) for Ontarians now and in the future;
- 2) engaging experts to provide insights about the most cost-effective and feasible types of care available for addressing population health needs; and
- 3) establishing deliberative processes that engage champions from health professional groups and health system stakeholders to collectively agree on which types of care are most appropriately adopted by whom, in order to meet population health needs.

Table 2 provides some examples of how this process could be pursued in three different sectors – home and community care, primary care and specialty care. Evidence and questions to consider during your deliberations are provided below.

Evidence to consider

There was limited evidence identified that focused specifically on this element or its components. The evidence that was found focused on engaging champions from health professional groups and health-system stakeholders to collectively address health system challenges (which could include identifying which functions would meet population health needs). It indicated that engagement through deliberative processes is promising, particularly when it provides an appropriate meeting environment, involves the right mix of participants, and makes appropriate use of research evidence as an input into deliberations.(38)

Planning for the Future Health Workforce of Ontario

Questions to consider

- What do you think the most important health needs are in Ontario today? What will they be in five years? In 25 years?
- To help inform planning, what do you think are the key ways that the health workforce needs to adapt to address the health challenges of today?
- How should we decide about the types of care (i.e., the 'functions') that are best able to meet the health needs of Ontarians?
 - o What would make decision-making processes trustworthy?
 - o Who should be included in decision-making processes?
 - o What should the role of citizens be in decision-making processes?
 - o What should the role of stakeholder groups be in decision-making processes?

Table 2. Sector-based health workforce scenarios for element 1

Sector	Examples of functions required to meet population health needs	Examples of models of care in which functions could be delivered in future	Examples of healthcare providers/caregivers who could be engaged to perform functions within delivery models
Home and community care	 Providing Ontarians living in their own homes with: professional services that help with assessing their needs, providing them with care or helping them care for themselves (e.g., nursing care, physiotherapy, occupational therapy, speech-language therapy, social work); personal support services to help them with performing daily activities or safely managing them on their own (e.g., assistance with the tasks of daily living, bathing, dressing, eating, personal hygiene, toilet hygiene, travelling to and from appointments) homemaking services (e.g., housework, planning and preparing meals, shopping for food and clothing, managing money, caring for 	 Geographically-defined (e.g., LHIN) oversight and planning of home and community care service providers and services Regionally-coordinated (e.g., sub-LHIN) home and community care eligibility assessments and referrals Nurse-coordinated interdisciplinary professional, personal support and homemaking service delivery 	 Registered nurses Registered practical nurses Physicians Allied health professionals Personal support workers Informal/family caregivers Volunteers

	children); andend-of-life care (e.g., in-home visits and respite care).		
Primary care	Providing Ontarians with a first point of contact with the health system to support: • the acquisition of information and advice, including to help with finding local healthcare services; • setting health and healthcare goals appropriate to their condition and context; • timely access to care when sick (e.g., same- or next-day appointments, after-hours care, and 24/7 support); • proactive prevention of illness and maintenance of health; • management of chronic disease, and support for self-management of chronic disease; and • care coordination with other healthcare providers and sectors.	 Online and telehealth access to information about care options Community-governed models that serve socially disadvantaged and hard-to-reach populations (e.g., Community Health Centres) Nurse practitioner-led interdisciplinary teams providing care to a roster of patients Interdisciplinary (physician-led) primary-care teams providing care to a roster of patients Interdisciplinary (physician-led) primary-care teams providing care to a geographically defined population of patients (e.g., at the LHIN or sub-LHIN level) Health hubs that provide an integrated district network of care, linked to local hospitals 	 Physicians Nurse practitioners Registered nurses Pharmacists Midwives Physician assistants Other health professionals who could be involved in team-based primary care (e.g. chiropractors, complementary and alternative practitioners, dentists, dietitians, optometrists, social workers)
Specialty care	 Providing Ontarians who have specialty care needs with: urgent care that fills the gap between primary and emergency care; emergency health services (e.g., dispatch centres, land ambulances, air ambulances, base hospitals and emergency rooms); specialty programs in over 60 areas (e.g., internal medicine specialties like cardiology and surgical specialties like orthopedics); and complex continuing care (e.g., for people requiring long-term, medically complex care that cannot be provided at home or in long-term care facilities). 	 Geographically-defined urgent- and emergency-care services coordinated around acute-care hospital hubs Geographically-defined acute- care hospital hubs that coordinate and provide the full range of inpatient and outpatient specialty care, with an emphasis on multidisciplinary teams Community-based specialty clinics to provide high volume/low-risk speciality procedures in outpatient settings (e.g., cataract surgery) 	 Physicians (specialists) Nurses Care coordinators Paramedics Physician assistants Other allied health professionals involved in specialty care

Element 2 — Establish the best ways to organize care and the health workforce required to meet Ontarians' health needs, while taking into account the economic realities in the province

Overview

Element 2 could be considered in two ways: 1) as an extension of element 1 discussed above with its 'building from the ground up' approach; or 2) as the 'hit the ground running' approach that functions as a short-term alternative to element 1. The latter might be considered as a way to address the most pressing short-term objectives for health workforce planning that would require focusing initially on existing models of care and adjusting established health workforce planning processes to reflect the current realities of the healthcare system.

Regardless of the starting point, this element could include one or more of the following sub-elements:

- 1) establishing the models of care that will likely be pursued in the short- and medium-term in Ontario to meet the health needs of Ontarians;
- 2) defining the mix of health professionals involved in these models;
- 3) adjusting existing approaches to health workforce planning in Ontario to account for the mix of health professionals involved in delivering care in new models; and
- 4) incorporating the full range of budgetary factors that may influence health workforce planning decisions, such as projected economic development and the price of various healthcare inputs (e.g., equipment, facilities, provider remuneration) to establish the parameters for incorporating effective demand principles into the process.

Evidence to consider

Two reviews were identified that related to element 2, but they provided no clear indications about the key features (benefits, harms, costs) that would determine the element's success in a new setting, or stakeholder views and experiences.



Questions to consider

- What do you think could be done differently to organize the health workforce to better meet the needs of Ontarians?
- What features of care should be retained if changes are made?
- What do you think is the best way to support needed changes in the province (e.g., through central planning at the provincial level, regional planning by the LHINs or natural evolution based on innovation at the community level)?

Element 3 — Select the appropriate policy levers to meet health workforce planning objectives

Overview

The focus of this element is on identifying what citizens think about the levers that would help to ensure that the right mix, supply and distribution of health professionals are in place to meet system goals.

Policymakers and planners could use one or more of a multitude of approaches to guide their decisions. These approaches are grouped in the following six broad categories:

- 1) changes to the capacity and mix of practising health professionals in the system (e.g., through adjustments to professional school admission criteria, the size of entering classes or curriculum);
- 2) changes in the information provided to students and practising health professionals that may influence where, what and how they practise (e.g., sharing information about anticipated community needs, career opportunities, and the context of practice);
- 3) changes in how organizations are funded, and how individual health professionals are remunerated to influence where and how they practise (e.g., adjusting fee levels to increase the income of a specific type of provider such as a rural primary-care physician);
- 4) changes in the examination, licensure, certification and regulation processes to make it easier/harder for certain health professionals to practise (e.g., removing licensure barriers to enable quicker transitions for foreign-trained professionals to practise in the province);
- 5) changes to professional development and on-the-job training curricula; and
- 6) changes to planning approaches and policies that affect the geographic distribution of health professionals (e.g., introducing regional distribution policies that affect the rules dictating provider hospital privileges).

This element could also include monitoring the implementation and evaluating the impact of policies at regular intervals over time to determine whether they are achieving their goals, and adjusting policies and models of care based on the insights gained from these efforts.

Evidence to consider

The reviews that were identified offer the following broad insights:

- remuneration plays an important role in influencing health professionals' behaviour, but it is only one factor among many (e.g., personal and lifestyle factors) that matter in decisions about where to practise, both in terms of healthcare setting (e.g. acute care versus community care) and geographic location (e.g., rural versus urban);(39-41)
- training health professionals from rural backgrounds in rural settings is a promising approach for attracting and retaining the health workforce in rural areas;(40-42) and
- it is important to keep health professionals engaged to ensure they are appropriately acknowledged, supervised, involved in governance and decision-making, and involved in education and training.(43)

Questions to consider

- What kinds of policy changes do you think are required to help Ontario meet its health workforce planning goals (e.g., changing the supply, mix and distribution of health professionals versus changing how professionals are trained versus changing how professionals are paid)?
- What role do you think patients and citizens in Ontario should play in supporting policymakers and planners in bringing about the changes in the system required to meet health workforce planning goals?



Implementation considerations

It is important to consider what barriers we may face if we implement the proposed elements of a potentially comprehensive approach to address the problem. These barriers may affect different groups (for example, patients, citizens and healthcare providers), different healthcare organizations or the health system more broadly. While some barriers could be overcome, others could be so substantial that they force a re-evaluation of whether we should pursue that element. Some potential barriers to implementing the elements are summarized in Table 3.



Table 3: Potential barriers to implementing the elements

Element	Description of potential barriers		
Cross-cutting barriers	 Factors outside the health system such as slow economic growth may make it difficult to respond to population health needs Despite the benefits of establishing a new approach to health workforce planning in Ontario, the elements presented may not be practical if adopted to meet short-term planning needs Pursing an entirely new approach to health workforce planning may not be efficient or practical given the current economic and political climate 		
Element 1 – Determine the current and future health needs of the population, and describe the healthcare functions required to meet those needs	 At the system level, additional time and resources are required to undertake a new exercise to establish health needs in Ontario At the system level, the technical capacity to pursue element 1 may not exist in a single location (e.g., Ministry of Health and Long-Term Care), and will likely require coordination across a number of centres both provincially and federally 		
Element 2 — Establish future health workforce scenarios and the appropriate models of care that will meet population health needs while balancing effective demand	 Some healthcare providers may not agree with the proposed models of care and provider roles within these models, and possible professional 'turf wars' may make constructive negotiations challenging Some organizations may not agree with the proposed models of care and with the ways in which they would need to align and structure themselves in order to support these models At the system level, policymakers and planners may not have appropriate data for good forecasting outside those working in 'fee for service' At the system level, constant change makes it difficult to predict with confidence the future of healthcare service-delivery models At the system level, policymakers and planners may establish projections that do not align with the realities of the health system as it evolves, given uncertainties associated with the political process, socioeconomic context and technological advances 		
Element 3 – Select the appropriate policy levers to meet health workforce planning objectives	 Some healthcare providers may be resistant to changes in licensure and regulation (such as scope of practice) if they think these changes will negatively affect their ability to practise Some healthcare providers may be resistant to changes in how they are paid if they think they will lose income or will be 'left out' Some organizations such as colleges and universities may find it difficult to implement changes in training programs required to meet health workforce planning goals, and at the same time differentiate their own programs to maintain their competitive advantage 		

Planning for the Future Health Workforce of Ontario

- Some organizations have very diverse governance processes which may make it difficult to coordinate system-wide changes to regulation
- Some organizations may resist changes in how they are paid if they think they will lose revenue or will be 'left out'
- At the system level, payments for primary-care services are still primarily channelled to physicians, rather than to models of care

The implementation of each of the three elements could also be influenced by the ability to take advantage of potential windows of opportunity. A window of opportunity could be, for example, a recent event that was highly publicized in the media, a crisis, a change in public opinion, or an upcoming election. A window of opportunity can facilitate the implementation of an element.

Examples of potential windows of opportunity

- Interest in pan-Canadian leadership: Following the election of a new federal government, collaboration among federal, provincial and territorial governments appears to have new momentum. Also, the use of evidence is now being prioritized in all of the thinking at the federal level, and a pan-Canadian bargaining process is already generating greater value for money in price negotiation.
- **Difficult economic times:** Sometimes difficult economic situations force the development of innovative policy approaches for making tough decisions.
- **Public interest:** The public is increasingly wanting to have a voice in decisions that affect them, coupled with there being increasingly better ways to do this.

For health workforce planning, the most important window of opportunity is the current appetite in the province among health system policymakers and stakeholders for widespread system transformation (of which Patients First is one example of a signal from government that indicates an interest in change). Ontario is entering into a phase where significant health-system transformation is possible, opening up an opportunity to make changes to existing health workforce planning processes. Other jurisdictions are using a similar approach for addressing health-workforce challenges, providing an opportunity for learning from their successes and failures.



In considering these potential barriers and windows of opportunity, recall the questions we posed at the beginning of the brief. A reminder is provided in Box 5 below.

Box 5: A reminder of the questions to consider for your deliberations

Questions related to the problem

- What are the health workforce planning challenges in Ontario that matter most to you and why?
- What are the health workforce planning challenges in Ontario that will be most important for health system policymakers and planners to address and why?

Questions related to the elements of a potentially comprehensive approach to address the problem

- Element 1 (Determine the current and future health needs of Ontarians and describe the types of care that can best meet those needs)
 - What do you think the most important health needs are in Ontario today? What will they be in five years? In 25 years?
 - o To help inform planning, what do you think are the key ways that the health workforce needs to adapt to address the health challenges of today?
 - O How should we decide about the types of care (i.e., the 'functions') that are best able to meet the health needs of Ontarians?
 - What would make decision-making processes trustworthy?
 - Who should be included in decision-making processes?
 - What should the role of citizens be in decision-making processes?
 - What should the role of stakeholder groups be in decision-making processes?
- Element 2 (Establish the best ways to organize care and the health workforce required to meet Ontarians' health needs, while taking into account the economic realities in the province)
 - What do you think could be done differently to organize the health workforce to better meet the needs of Ontarians?
 - What features of care should be retained if changes are made?
 - What do you think is the best way to support needed changes in the province (e.g., through central planning at the provincial level, regional planning by the LHINs or natural evolution based on innovation at the community level)?
- Element 3 (Select the appropriate policy levers to meet health workforce planning objectives)
 - What kinds of policy changes do you think are required to help Ontario meet its health workforce planning goals (e.g., changing the supply, mix and distribution of health professionals versus changing how professionals are trained versus changing how professionals are paid)?
 - What role do you think patients and citizens in Ontario should play in supporting policymakers and planners in bringing about the changes in the system required to meet health workforce planning goals?

Question related to implementation considerations

• What are the biggest barriers to pursuing the elements? What are the biggest opportunities that could help to implement the elements?

Acknowledgments

Authors

Kaelan A. Moat, PhD, Scientific Lead, Health Systems Evidence and Learning, McMaster Health Forum Ileana Ciurea, MD, Managing Director, McMaster Health Forum, McMaster University Kerry Waddell, M.Sc., Co-lead, Evidence Synthesis, McMaster Health Forum John N. Lavis, MD PhD, Director, McMaster Health Forum, and Professor, McMaster University

Funding

The citizen brief and the citizen panel it was prepared to inform were funded by the Government of Ontario and the Ontario SPOR SUPPORT Unit (OSSU). OSSU receives funding from the Government of Ontario and the Canadian Institutes of Health Research (CIHR). The McMaster Health Forum receives both financial and in-kind support from McMaster University. The views expressed in the evidence brief are the views of the authors and should not be taken to represent the views of the funders.

Conflict of interest

The authors declare that they have no professional or commercial interests relevant to the citizen brief. The funder played no role in the identification, selection, assessment, synthesis, or presentation of the research evidence profiled in the citizen brief.

Merit review

The citizen brief was reviewed by a small number of citizens, other stakeholders, policymakers and researchers in order to ensure its relevance and rigour.

Acknowledgments

The authors wish to thank the entire McMaster Health Forum team for support with project coordination, specifically Aunima Bhuiya and Sonia Huang for assistance with reviewing the research evidence about the options section of this citizen brief, and Julie Baird and Steven Lott for assistance with the document production. We are grateful to Steering Committee members and merit reviewers for providing feedback on previous drafts of this brief. We are especially grateful to Onil Bhattacharyya, Melissa Farrell, Lisa Priest and Neil Stuart for their insightful comments and suggestions. The views expressed in this brief should not be taken to represent the views of these individuals.

Citation

Moat KA, Ciurea I, Waddell K, Lavis JN. Citizen Brief: Planning for the Future Health Workforce of Ontario. Hamilton, Canada: McMaster Health Forum, 17 September 2016.

ISSN

2292-2334 (Online)

References

- 1. World Health Organization. The world health report 2006: Working together for health. Geneva, Switzerland: World Health Organization, 2006.
- 2. Birch S, O'Brien-Pallas L, Alksnis C, Tomblin Murphy G, Thomson D. Beyond demographic change in human resources planning: an extended framework and application to nursing. *J Health Serv Res Policy* 2003; **8**(4): 225-9.
- 3. Registered Nurses' Association of Ontario. Registered nurse/nurse practitioner workforce backgrounder. Toronto, Canada: Registered Nurses' Association of Ontario, 2016.
- 4. Grinspun D, Harripaul-Yhap A, Jarvi K, Lenartowych T. Mind the safety gap in health system transformation: Reclaiming the role of the RN. Toronto, Canada: Registered Nurses' Association of Ontario, 2011.
- 5. Canadian Institute for Health Information. Seniors and the Health Care System: What is the Impact of Multiple Chronic Conditions? Ottawa, Canada: Canadian Institute of Health Information, 2011.
- 6. College of Nurses of Ontario. 2014 Annual report: Statistics: College of Nurses of Ontario, 2014.
- 7. Office of the Auditor General of Ontario. Annual report 2015. Toronto, 2015.
- 8. Canadian Medical Association. General practitioners/family physicians per 100,000 population by province/territory, 1986-2014, 2014.
- 9. HealthForceOntario. Family practice models. 2013.
- 10. HealthForceOntario. Health professions database 2011 stat book: HealthForceOntario, 2014.
- 11. Nelson S, Turnbull J, Bainbridge L, et al. Optimizing scopes of practice: New models for a new health care system. Ottawa, Canada: Canadian Academy of Health Sciences, 2014.
- 12. College of Dietitians of Ontario. Inspiring public trust: Annual report 2014-2015. Toronto: The College of Dietitians of Ontario, 2015.
- 13. HealthForceOntario. Physician assistants in Ontario. 2015. http://www.healthforceontario.ca/en/M4/Ontario's Physician Assistant Initiative (accessed April 4 2016).
- 14. Ministry of Health and Long-Term Care. Patients first: Action plan for health care: Ministry of Health and Long-Term Care, 2015.
- 15. Ministry of Health and Long-Term Care. Patients first: A roadmap to strengthen home and community care. Ontario: Ministry of Health ad Long-Term Care, 2015.

- 16. World Health Organization. Models and tools for health workforce planning and projections. *Human Resources for Health Observer* 2010; (3): 1-19.
- 17. Ministry of Health and Long-Term Care. Health workforce plannign and regulatory affairs department: Regulated health professionals. 2016.
- 18. Conrad E, Vas J, Dodge W, et al. Provincial health human resource planning & guide for health authorities. Edmonton: Alberta Health and Wellness, 2008.
- 19. Alberta Health Services. Health workforce action plan: Addressing Alberta's health workforce shortages: Alberta Health Services, 2007.
- 20. Alberta Health Services. Health Professions Strategy and Practice: Clinical Workforce Strategic Plan 2011–2016. Edmonton, Canada: Government of Alberta; 2012.
- 21. Ministry of Health of British Columbia. Enabling effective, quality population and patient-centred care: A provincial strategy for health human resources, 2015.
- 22. Ministry of Health of British Columbia. British Columbia forecast methodology. 2012. http://hhrtoolkit.ca/wp-content/uploads/2012/02/Forecast-methodology-BC.pdf.
- 23. Saskatchewan Ministry of Health. Saskatchewan's health human tesources plan: Saskatchewan Ministry of Health, 2011.
- 24. Ono T, Lafortune G, Schoenstein M. Health workforce planning in OECD countries: A review of 26 projection models from 18 countries. Paris: Organisation for Ecnoic Co-operation and Development, 2013.
- 25. King K. Health care workforce: Comprehensive planning by HHS needed to meet national needs. Washington: United States Government Accountability Office, 2015.
- 26. Executive Agency for Health and Consumers. EU level collaboration on forecasting health workforce needs, workforce planning and health workforce trends A feasibility study: Centre for Workforce Intelligence, 2012.
- 27. Organisation for Economic Co-operation and Development. Right jobs, right skills, right places. Paris: Organisation for Economic Co-operation and Development, 2016.
- 28. Dussault G, Buchan J, Sermeus W, Padaiga Z. Assessing future health workforce needs. Belgium EU presidency conference on investing in Europe's health workforce of tomorrow: Scope for innovation and collaboration; 2010; La Hulpe: European Observatory for Health Systems and Policies; 2010.
- 29. Health Workforce New Zealand. Our current work. 2014. http://healthworkforce.health.govt.nz/our-current-work (accessed April 4 2016).
- 30. Organization for Economic Co-operation and Development. Health at a Glance 2015: OECD Indicators. Paris: OCECD Publishing; 2015.
- 31. Sinha S. Living Longer, Living Well: Highlights and Key Recommendations: Ministry of Health and Long-term Care, 2013.

Planning for the Future Health Workforce of Ontario

- 32. Cancer Care Ontario, Ontario Agency for Health Protection and Promotion (Public Health Ontario). Taking action to prevent chronic disease: Recommendations for a healthier Ontario. Toronto, Canada: Cancer Care Ontario and Public Health Ontario, 2012.
- 33. Donner G, Fooks C, McReynolds J, Sinha S, Smith K, Thomson D. Bringing care home: Home & Community Care, 2015.
- 34. Gorman D. Developing health care workforces for uncertain futures. *Acad Med* 2015; **90**(4): 400-3.
- 35. Lavis J, Neves J, Pi L, Gauvin F. Evidence brief: Creating community-based specialty clinics in Ontario. Hamilton: McMaster Health Forum, 2013.
- 36. Fréchette D, Hollenberg D, Shrichand A, Jacob C, Datta I. What's really behind Canada's unemployed specialists? Too many, too few doctors? Findings from the Royal College's employment study. Ottawa, Ontario: The Royal College of Physicians and Surgeons of Canada, 2013.
- 37. HealthForceOntario. HealthForceOntario Newsletter. 2, 2007.
- 38. Boyko JA, Lavis JN, Dobbins M. Deliberative dialogues as a strategy for system-level knowledge translation and exchange. *Healthc Policy* 2014; **9**(4): 122-31.
- 39. Dieleman M, Gerretsen B, van der Wilt GJ. Human resource management interventions to improve health workers' performance in low and middle income countries: A realist review. *Health Research Policy and Systems* 2009; **7**(1): 1-13.
- 40. Keefe J, Knight L, Martin-Matthews A, Légaré J. Key issues in human resource planning for home support workers in Canada. *Work* 2011; **40**(1): 21-8.
- 41. Lehmann U, Dieleman M, Martineau T. Staffing remote rural areas in middle- and low-income countries: A literature review of attraction and retention. *BMC Health Services Research* 2008; **8**(19).
- 42. Dolea C, Stormont L, Braichet J. Evaluated strategies to increase attraction and retention of health workers in remote and rural areas. *Bulletin Of The World Health Organization* 2010; **88**: 379-85.
- 43. Dieleman M, Shaw DM, Zwanikken P. Improving the implementation of health workforce policies through governance: a review of case studies. *Human Resources for Health* 2011; **9**(1): 1-10.



>> Contact us

McMaster Health Forum 1280 Main St. West, MML-417 Hamilton, ON Canada L8S 4L6 Tel: +1.905.525.9140 x 22121 Email: mhf@mcmaster.ca

>> Follow us

mcmasterhealthforum.org healthsystemsevidence.org healthsystemslearning.org





tinyurl.com/mhf-YouTube tinyurl.com/mhf-Facebook tinyurl.com/mhf-Twitter