

Evidence Brief

Modernizing the Oversight of the Health Workforce in Ontario

21 September 2017



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**Evidence Brief:
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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.

Authors

Kerry Waddell, M.Sc., Co-lead Evidence Synthesis, McMaster Health Forum

Kaelan A Moat, PhD, Managing Director, McMaster Health Forum

John N. Lavis, MD, PhD, Director, McMaster Health Forum, and Professor, McMaster University

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KEY MESSAGES

What's the problem?

- Ontario's health-system leaders are attempting to position the health system to respond to the evolving needs of Ontarians (e.g., an aging population and increasing prevalence of multimorbidity) and an array of new health-system challenges (e.g., rapidly evolving health technologies and growing anti-microbial resistance). To do this, a number of large-scale reforms have been introduced over the last decade and a half, however, the number and scale of these reforms has not been matched by commensurate efforts to position Ontario's health workforce to respond to the evolving needs of Ontarians and emerging health-system challenges. The result has been an approach to health-workforce oversight which many may argue no longer serves the health system. This problem can be conceptualized in relation to six distinct features of the approach to workforce oversight currently in place in Ontario:
 - the oversight mechanisms in place have not kept pace with the changing health system;
 - the current oversight framework is focused on regulating individual categories of health workers, rather than groupings of them, and captures many but not all health workers;
 - the oversight framework has a different focus than the framework used in the education and training of health workers;
 - the financing and funding of oversight bodies are not explicitly designed to optimize public-protection efforts;
 - it is difficult to find information on how the health workforce and its oversight bodies are performing; and
 - citizens are not consistently engaged in meaningful ways in oversight activities.

What do we know (from systematic reviews) about three elements of a potentially comprehensive approach to address the problem?

- Element 1 – Use a risk-of-harm approach to health-workforce oversight
 - One scoping review and two primary studies were identified that related to the element, albeit at a very general level. The evidence focused largely on implementation considerations, including the need to collectively define risk, establish the amount of risk that an organization is prepared to accept, and put in place a robust and efficient surveillance system.
- Element 2 – Use competencies as the focus of oversight
 - One systematic review and four primary studies were identified that relate to this element. The systematic review highlighted the lack of consensus on nursing competencies in Canada, while two studies assessed the use of competencies in training and in recruiting professionals, and found significant improvements in non-clinical skills and the identification of stronger candidates, respectively.
- Element 3 – Employ a performance-measurement and -management system for the health workforce and its oversight bodies
 - One systematic review and three primary studies were identified that relate to this element. The systematic review suggests that successful mandatory reporting schemes for health workers require a high bar for reporting impairment, a fair and timely response, and the availability of preventive assistance. One primary study highlighted that an inclusive approach to developing performance measures improved the commitment of stakeholders to implementing and reporting on the measures.

What implementation considerations need to be kept in mind?

- Recent discussions in the province around the need to update workforce-oversight mechanisms, combined with the upcoming provincial election, present a window of opportunity for modernizing the oversight of the health workforce in Ontario. However, pursuing element 1 in particular may encounter a number of barriers, including the challenge of gaining consensus in government and, to the extent that the government feels it is needed, among workforce oversight bodies (and possibly among associations of health workers).

REPORT

As with other jurisdictions across the country and around the world, Ontario’s health-system leaders are attempting to position the health system to respond to the evolving needs of Ontarians (e.g., an aging population and increasing prevalence of multimorbidity) and an array of new health-system challenges (e.g., rapidly evolving health technologies and growing anti-microbial resistance). At the same time, these leaders are increasingly committed to achieving the ‘triple aim’ of improving the patient experience, improving population health, and keeping per capita costs manageable.(1)

Some of the larger reforms that have been introduced over the last decade and a half to achieve these aims include:

- strengthening governance, financial and delivery arrangements by:
 - delegating authority to 14 Local Health Integration Networks (LHINs) for planning, funding and integrating care, and more recently for functions previously handled by Community Care Access Centres;
 - using funding models – Health-Based Allocation Model and Quality-Based Procedures – to ensure more resources get to communities with greater needs and to improve care for priority health conditions;
 - enhancing health-system performance measurement and reporting and supporting continuous quality improvement through Health Quality Ontario (through the *Commitment to the Future of Medicare Act, 2004*), and making it mandatory for many types of health organizations to submit annual quality-improvement plans to Health Quality Ontario (through the *Excellent Care for All Act, 2010*);
- improving care both within and across key sectors, such as:
 - in primary care by introducing interprofessional teams (i.e., Family Health Teams), adjusting physician remuneration (from fee-for-service to blended models), and expanding the role of nurses working in team-based settings (e.g., Nurse Practitioner-led Clinics) and of pharmacists working in community settings (e.g., as part of Family Health Teams);
 - across home care, primary care and specialty care by introducing Health Links to support frequent service users;

Box 1: Background to the evidence brief

This evidence brief mobilizes both global and local research evidence about a problem, three elements of a potentially comprehensive approach to address the problem, and key implementation considerations. Whenever possible, the evidence brief summarizes research evidence drawn from systematic reviews of the research literature and occasionally from single research studies. A systematic review is a summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select and appraise research studies, and to synthesize data from the included studies. The evidence brief does not contain recommendations, which would have required the authors of the brief to make judgments based on their personal values and preferences, and which could pre-empt important deliberations about whose values and preferences matter in making such judgments.

The preparation of the evidence brief involved five steps:

- 1) convening a Steering Committee comprised of representatives from the partner organization, key stakeholder groups, and the McMaster Health Forum;
- 2) developing and refining the terms of reference for an evidence brief, particularly the framing of the problem and three elements of a potentially comprehensive approach to address it, in consultation with the Steering Committee and a number of key informants, and with the aid of several conceptual frameworks that organize thinking about ways to approach the issue;
- 3) identifying, selecting, appraising and synthesizing relevant research evidence about the problem, elements and implementation considerations;
- 4) drafting the evidence brief in such a way as to present concisely and in accessible language the global and local research evidence;
- 5) incorporating input from three citizen panels; and
- 6) finalizing the evidence brief based on the input of several merit reviewers.

The evidence brief was prepared to inform a stakeholder dialogue at which research evidence is one of many considerations. Participants’ views and experiences and the tacit knowledge they bring to the issues at hand are also important inputs to the dialogue. One goal of the stakeholder dialogue is to spark insights – insights that can only come about when all of those who will be involved in or affected by future decisions about the issue can work through it together. A second goal of the stakeholder dialogue is to generate action by those who participate in the dialogue, and by those who review the dialogue summary and the video interviews with dialogue participants.

- across home care, primary care and public health by introducing sub-LHIN regions to support local planning and coordination; and
- improving care for select conditions, treatments and populations, such as:
 - centralizing access to and putting in place a robust performance-measurement and -management system for cancer care, and beginning to do the same for mental health and addictions care (initially for children and youth);
 - expanding access to prescription drugs, most recently for young Ontarians; and
 - creating supports specific to the needs of Indigenous peoples.

The number and scale of these reforms has not been matched by commensurate efforts to position Ontario's health workforce to respond nimbly to the evolving needs of Ontarians and emerging health-system challenges, or to work collaboratively to achieve the 'triple aim.' As a first step in this direction, the Ontario Ministry of Health and Long-Term Care asked the McMaster Health Forum in 2016 to prepare an evidence brief (2) and convene a stakeholder dialogue (3) about planning for the future health workforce. One of the themes that emerged from the deliberations in September 2016 was the need to review how the health workforce is regulated in Ontario. As a second step towards better positioning Ontario's health workforce, the same ministry asked the McMaster Health Forum to broaden this theme and examine how to modernize the oversight of the health workforce. This includes both how to update the current regulatory framework to meet health-system needs as well as to consider whether changes could be made to the current mechanisms in place to oversee the health workforce and the bodies involved. This evidence brief is part of our response.

There are at least four reasons why many health-system leaders believe that the time has come to seriously consider modernization. First, the primary legislation for the oversight of the health workforce in Ontario – the *Regulated Health Professions Act, 1991* (RHPA) – has not been reviewed to ensure it has evolved alongside the health system in the face of: 1) changing public expectations (which are in part due to greater access to health information and health records and to the greater use of digital tools outside the health system); 2) growing concern among citizens about the system's ability to deliver high-quality, patient-centred care; and 3) changing care-delivery models (e.g., interprofessional team-based care) and other shifts introduced by the reforms noted above.

Second, piecemeal amendments to the legislative framework have created a particularly complex landscape for the oversight of the health workforce in Ontario (Table 1). The many pieces of legislation and bodies

Box 2: Equity considerations

A problem may disproportionately affect some groups in society. The benefits, harms and costs of elements to address the problem may vary across groups. Implementation considerations may also vary across groups.

One way to identify groups warranting particular attention is to use "PROGRESS," which is an acronym formed by the first letters of the following eight ways that can be used to describe groups†:

- place of residence (e.g., rural and remote populations);
- race/ethnicity/culture (e.g., First Nations and Inuit populations, immigrant populations and linguistic minority populations);
- occupation or labour-market experiences more generally (e.g., those in "precarious work" arrangements);
- gender;
- religion;
- educational level (e.g., health literacy);
- socio-economic status (e.g., economically disadvantaged populations); and
- social capital/social exclusion.

The evidence brief strives to address all Ontarians, but (where possible) it also gives particular attention to two groups:

- individuals who seek the majority of their care from health workers not regulated under the RHPA; and
- individuals who have had a negative experience with a health worker.

Many other groups warrant serious consideration as well, and a similar approach could be adopted for any of them.

† The PROGRESS framework was developed by Tim Evans and Hilary Brown (Evans T, Brown H. Road traffic crashes: operationalizing equity in the context of health sector reform. *Injury Control and Safety Promotion* 2003;10(1-2): 11–12). It is being tested by the Cochrane Collaboration Health Equity Field as a means of evaluating the impact of interventions on health equity.

involved in the oversight of health workers makes determining lines of accountability difficult. There are currently 29¹ regulated health professions with 26² professional regulatory colleges. Further, there are many categories of health workers that are not currently included in the RHPA, such as personal-support workers (of which there are many) as well as assistants of many kinds (e.g., dental, medical laboratory, physiotherapy and osteopath), athletic therapists, hearing instrument practitioners, lactation consultants, marriage and family therapists, medical geneticists, paramedics, podiatrists, phlebotomists, and personal-service workers of many kinds (e.g., ear piercers, tattoo artists). While some of these categories of health workers are overseen through other mechanisms (e.g., paramedics are regulated through the *Ambulance Act, 1990*), many repeatedly seek inclusion in the RHPA. Adding to the complexity, workers in the social-services field who often work closely with health workers are not covered by the same oversight mechanisms as health workers (unlike in the U.K., where health and social care are often handled together). As of 2011, the professionals covered under the RHPA are decided through the use of a risk-based approach, whereby professional bodies must demonstrate that their practice poses sufficient risk to warrant self-regulation. Decisions are made based on referrals to the Health Professions Regulatory Advisory Council.

Table 1: Examples of some of the key acts involved in the oversight of the health workforce

Act*	Contribution
<i>Regulated Health Professions Act, 1991</i>	<ul style="list-style-type: none"> • Provided the legislative framework for the self-governance of the now 29¹ regulated health professions in Ontario by the now 26² professional regulatory colleges
<i>Medicine Act, 1991</i>	<ul style="list-style-type: none"> • Confirmed physicians as self-regulating professionals, outlined the responsibilities of the College of Physicians and Surgeons of Ontario for governing the medical profession, and described the duties, scope of practice and authorized acts of physicians
<i>Midwifery Act, 1991</i>	<ul style="list-style-type: none"> • Brought midwives under the <i>Regulated Health Professions Act, 1991</i> with the profession overseen and regulated by the College of Midwives of Ontario
<i>Health System Improvements Act, 2007</i>	<ul style="list-style-type: none"> • Included the requirement for greater transparency for professional regulatory colleges, and the establishment of new transitional profession regulatory colleges – naturopathy, homeopathy, kinesiology and psychotherapy • Initiated the reform to the complaints process
<i>Regulated Health Professions Statute Law Amendment Act, 2009</i>	<ul style="list-style-type: none"> • Expanded the scope of practice of many regulated health professionals (e.g., nurse practitioners, pharmacists, physiotherapists, dietitians, midwives and medical radiation technologists) and changed the rules related to various aspects of drug administration by select health professionals (nurse practitioners, pharmacists, midwives, chiropractors, podiatrists, dentists and dental hygienists) • Mandated that all regulated health professionals have professional liability insurance, professional regulatory colleges make team-based care a key component of their quality-assurance programs, and professional regulatory colleges with professions providing the same or similar services develop common standards for those services
<i>Naturopathy Act, 2015</i>	<ul style="list-style-type: none"> • Brought naturopathy under the <i>Regulated Health Professions Act, 1991</i> with the profession overseen and regulated by the College of Naturopaths of Ontario
<i>Protecting Patients Act, 2017</i>	<ul style="list-style-type: none"> • Increased the ability of the Ministry of Health and Long-Term Care to oversee professional regulatory colleges, for example by compelling the colleges to provide additional performance metrics

*In addition to those listed, 23 other profession-specific statutes have been passed

Third, recent amendments to the composition of professional regulatory college councils and committees through Bill 87 highlighted substantial differences in how ‘self-regulation,’ among other key concepts, have come to be understood in Ontario, both within and across professions. Specifically, this has been illustrated

¹ Audiology, chiroprody, chiropractic, dental hygiene, dental technology, dentistry, denturism, dietetics, homeopathy, kinesiology, massage therapy, medical laboratory technology, medical radiation technology, medicine, midwifery, naturopathy, nursing, occupational therapy, opticianary, optometry, pharmacy, pharmacy technicians, physiotherapy, podiatry, psychology, psychotherapy, respiratory therapy, speech-language pathology, and traditional Chinese medicine

² Audiologists and speech-language pathologists are regulated by a single professional college, as are chiropractors and podiatrists and pharmacists and pharmacy technicians.

through the differences in responses from professional bodies to a subsection within Bill 87 that provides new regulation-making powers to the Minister of Health and Long-Term Care. Across the professional regulatory colleges, the response to this provision differed substantially, with some seeing it as infringing upon their rights to self-governance and to set the standards for their profession. While some groups employ this broad definition of self-governance, in Ontario it tends to have a narrower meaning (e.g., professional council members are elected by their profession, and professionals are involved in developing, implementing and enforcing regulations within a regulatory framework set by government).

Fourth, other jurisdictions have introduced many innovations in the oversight of health workers so there is now a broader array of options against which to compare Ontario's current oversight mechanisms. These options include both regulatory models (e.g., agency regulation, complementary regulation, compliance-based regulation, co-regulation, direct government regulation, voluntary regulation, and self-regulation - which can be thought of as a spectrum of models with government regulation at one end and profession-led regulation at the other end, with government agencies and hybrid models in between) and approaches to oversight including risk-of-harm approaches, focusing on competencies, controlled acts and/or scopes of practice, and performance measurement and management – each of which have been defined in the elements section of the brief.

Taken together, and combined with recent events that often received extensive media coverage and could reduce public trust and confidence in the current oversight mechanisms in the province (e.g., the Wettlaufer trial and the Handa licence suspension), these reasons provide a strong rationale for pursuing a discussion about whether the modernization of the oversight of the health workforce in Ontario would better advance the public interest than the status quo and, if so, what type of modernization would best do so. As a first step in considering the best approaches for the province, this evidence brief will build on the concepts and themes outlined above and mobilize the best-available global and local research evidence to clarify the problem(s) related to the oversight of the health workforce in Ontario, present three elements of a potentially comprehensive approach for addressing the problem, and highlight key implementation considerations.

THE PROBLEM

Many factors contribute to the need for modernizing the oversight of the health workforce. Some of the factors that emerged in discussions with health-system stakeholders, which are revisited in detail below, include:

- 1) the oversight mechanisms in place have not kept pace with the changing health system;
- 2) the oversight framework is focused on regulating individual categories of health workers, rather than grouping of them, and captures many but not all health workers;
- 3) the oversight framework has a different focus than the framework used in the education and training of health workers;
- 4) the financing and funding of oversight bodies are not explicitly designed to improve public-protection efforts;
- 5) it is difficult to find information on how the health workforce and its oversight bodies are performing; and
- 6) citizens are not consistently engaged in a meaningful way in oversight activities.

In aligning the features of the problem with the rationale laid out above, the first and second features of the problem relate to the first and second rationales for modernization described in the previous section (the RHPA hasn't been adapted, and a complex oversight landscape). Further, the first three features of the problem intersect with the types of healthcare delivery arrangements with which health workers will be familiar, whereas the fourth moves us into financial arrangements, and the fifth and sixth into higher-level governance arrangements.

The oversight mechanisms in place have not kept pace with the changing health system

As previously mentioned, the legislative framework for the oversight of health professionals in Ontario, which is largely based on the *Regulated Health Professions Act, 1991* (RHPA), has not evolved to keep pace with many changes in the health system, including: 1) changing public expectations; 2) growing concern among citizens about the system's ability to deliver high-quality, patient-centred care; and 3) changing care-delivery models (e.g., interprofessional team-based care).

First, changing public expectations, facilitated in part through greater public access to health information about what and how services should be provided (and what their own records say about what they received), has placed pressure on the health workforce to adapt. These expectations reflect changes in other service industries and include a call for an increase in the implementation of technology across the health system, increased choice related to the settings in which care is received, improved convenience in receiving services, and enhanced levels of personalization. Overall, members of the public now expect more than ever that the health system and the workers providing services to patients within it, have the primary goal of ensuring an excellent patient experience. To meet these expectations the health workforce requires flexibility and a nimbleness towards patient care that the current legislative approach does not provide.

Secondly, there is a growing concern among citizens about the system's ability to continue to deliver high-quality, patient-centred care. This includes increased questioning about whether current oversight mechanisms (e.g., scope of practice and controlled acts) allow professionals to be sufficiently flexible to

Box 3: Mobilizing research evidence about the problem

The available research evidence about the problem was sought from a range of published and "grey" research literature sources. Published literature that provided a comparative dimension to an understanding of the problem was sought using three health services research "hedges" in MedLine, namely those for appropriateness, processes and outcomes of care (which increase the chances of us identifying administrative database studies and community surveys). Published literature that provided insights into alternative ways of framing the problem was sought using a fourth hedge in MedLine, namely the one for qualitative research. Grey literature was sought by reviewing the websites of a number of international organizations, such as the names of bodies that play a role in workforce regulation in other countries (e.g., Professional Standards Authority and the Health and Social Care Council in the U.K., and the Ministry of Health in New Zealand) or in studying it (e.g., King's Fund).

Priority was given to research evidence that was published more recently, that was locally applicable (in the sense of having been conducted in Ontario or in Canada), and that took equity considerations into account.

provide an individualized approach, to work closely to coordinate and collaborate on patient care, and to keep up the delivery of high-quality care as the system evolves. In particular, the need for professionals to significantly adapt their approach to providing services has rapidly increased in recent years, including the requirement to deliver a new type of services (e.g., medical assistance in dying), incorporate new technologies (e.g., electronic medical records), or treat new conditions (e.g., SARS or Zika). However, current oversight mechanisms have not kept up to date with these changes.

Finally, the ways in which healthcare services are delivered in Ontario has changed dramatically since the RHPA was developed, which primarily focused on independent professional practice and institution-based care. The regulatory framework was established with an implicit assumption that these points of emphasis in the health system would remain relatively static. However, given the many reforms and shifts experienced by the system since then (most notably changes in demographics and in the burden of chronic diseases in the population), the current approach appears out of date. As the focus of the health system has shifted away from acute treatment, we have been forced to re-examine how best to provide patients with the care they need. This has meant a long-term move towards interprofessional team-based care as well as moving services out of institutions and into the community.

While these adaptations have led to improvements in access and quality of care for patients, they also represent new challenges in protecting the public from harm through appropriate oversight mechanisms. These include, among others, challenges in standardizing care in the community, a lack of clarity in how accountability is defined, and the potential for uncertainty in attributing harm when health workers are providing patient care as part of an interdisciplinary team.

The oversight framework is focused on regulating individual categories of health workers, rather than groupings of them, and captures many but not all health workers

As mentioned in the second component of the rationale above, through the development of an independent designated professional regulatory college for (almost) every regulated profession in Ontario, the oversight framework has focused on regulating each profession individually rather than groups of similar professions. The 26 professional regulatory colleges that currently operate in Ontario are largely independent of one another. This mostly uncoordinated and siloed approach means that each of the professional regulatory colleges is allocating resources to the same functions of professional registration, quality assurance, education, investigations and discipline. This is in contrast to other jurisdictions (e.g., the U.K., Australia, Ireland and New Zealand), which have chosen to group professionals based on their risk of harm, functional area, or geographic area, into a smaller number of oversight bodies.

In addition, the current regulatory structure has failed to cover many categories of health workers despite having a substantially larger number of oversight bodies than comparator jurisdictions. Furthermore, existing regulation (most notably the RHPA) does not account for how different types of health workers could be overseen using different approaches along a continuum of regulatory mechanisms (e.g., from voluntary registration and accreditation to required licensing), an approach that has been adopted in other jurisdictions (e.g., the U.K.). Categories of health workers that are not currently captured under the RHPA include paramedics, assistants of many types and personal-support workers, to name a few. While other mechanisms are in place to protect the public's interest through either the sectors in which these health workers work (e.g., *Ambulance Act, 1990*), the type of organizations in which they work (e.g., *Public Hospitals Act, 1990*), or through voluntary associations (e.g., Ontario Paramedic Association), these are often not well documented, and due to changes in the health system and a recent evolution in the importance of their roles (e.g., increased focus on community care), these mechanisms may no longer be adequate to protect the public's safety. Further, the inconsistent oversight of these health workers presents additional challenges in terms of data collection, health-workforce planning, and standardization of training and education.

The oversight framework has a different focus than the framework used in the education and training of health workers

The approach to health-workforce oversight in Ontario has focused on professional scopes of practice and controlled acts, which, within the RHPA, define what services professionals can deliver, where they can practise, and under what supervision. While oversight bodies have accommodated the recent shift towards the competencies that are now the focus of health professionals' education programs (e.g., the use of the CanMEDS framework by the College of Physicians and Surgeons of Ontario), entry-to-practice exams and continuing professional-development requirements, they continue to have to work within an oversight framework that stops a health professional from embracing a broader scope of practice or engaging in a controlled act even if they can demonstrate that they have developed an appropriate level of competency.

These distinct areas of focus create a gap between how health professionals think about what they have been trained to do and what they are actually allowed to do. This gap may mean that access to high-quality care is being unnecessarily limited, for example, through the restriction of some professionals taking on the delivery of additional services.

Financing and funding of oversight bodies are not explicitly designed to optimize public-protection efforts

The mechanisms in place for financing oversight bodies (e.g., through member contributions for professional regulatory colleges) and for funding workforce oversight (e.g., for determining what professional regulatory colleges should be spending resources on) have not been designed with the primary goal of ensuring public safety. For example, professional regulatory colleges are financed through fees that are set by the colleges and paid by their members. This financing mechanism creates inconsistencies between professions as well as between health professionals and other health workers. Specifically, professional regulatory colleges representing higher-earning professions or professions with more paying members have access to larger amounts of resources (or pay lower membership fees). The current approach to financing also creates a challenge with regards to other categories of health workers, who often belong to voluntary associations and many of whom are charged with the responsibility of protecting and promoting the public's well-being. However, unlike professional regulatory colleges, these associations do not have fees that they charge their members for this work, which potentially diminishes their ability to protect the public's safety.

The approaches to funding workforce oversight is also a challenge. Specifically, there is a lack of understanding in the health system of what levels of resource allocation to what oversight mechanisms maximize the benefits of each function. For example, there is little theoretical work or empirical evidence to clearly show the presumed or actual relationship between resource allocation for oversight and improvements towards achieving health-system goals on the one hand (e.g., the 'triple aim' of improving the patient experience, improving population health, and keeping per capita costs manageable), and outcomes more explicitly tied to patient protection and safety in healthcare on the other hand. The challenges associated with understanding what to fund are likely linked to the siloed approaches taken by professional regulatory colleges in Ontario, with the potential for streamlining and efficiencies possible with a more coordinated and collaborative approach.

It is difficult to find information on how the health workforce and its oversight bodies are performing

In Ontario, it is largely unclear who holds the responsibility for collecting and publicly reporting on performance measurement and management of health professionals or their oversight bodies. While professional regulatory colleges are required to publish some information on their websites, this information is not always as useful to the public as information about whether health professionals are adhering to their professional and ethical codes, as well as the volume of activities being undertaken to address professional

non-adherence. While some professional regulatory colleges openly provide this type of information, it is not consistently available or as easily accessible to the public across the 26 professional regulatory colleges. For example, citizens may have to read through lengthy annual reports to find this information.

To further complicate the performance-measurement and -management landscape, there is an abundance of commissions, councils, agencies and boards both external and internal to the Government of Ontario, each of which perform roles that complement, overlap or support the professional regulatory colleges in Ontario in protecting the public’s interest (Table 2). For the most part, however, discerning the roles and mandates of each of these bodies is quite challenging and leads to confusion among citizens, health workers and policymakers as to who is responsible for collecting data about and publicly reporting on the performance of health workers, and for taking action to reduce the risk of harm and to address harm when it happens.

In addition, reporting on the performance measurement and management of professional regulatory colleges themselves has been largely absent in Ontario. The enduring emphasis on regulating professionals and not on ‘watching the watchers’ (i.e., professional regulatory colleges themselves) has meant that there has been little effort (with the exception of annual reports) to measure and publicly report on the extent to which professional regulatory colleges are meeting their mandate and protecting the public interest, as happens in countries like the U.K.

Table 2. Bodies performing roles that complement overlap or support the professional regulatory colleges in Ontario

Key functions	
Government of Ontario	
<ul style="list-style-type: none"> • Legislation- and regulation-making bodies 	<ul style="list-style-type: none"> • Establish the acts and regulations that govern the bodies that train and (self) regulate – and in some cases (e.g., hospitals) employ – the health workforce
<ul style="list-style-type: none"> • Fairness Commissioner 	<ul style="list-style-type: none"> • Provides guidance about, assesses adherence to guidance about, and reports on non-adherence to guidance about the registration practices of certain regulated professions and trades
<ul style="list-style-type: none"> • Ministry of Advanced Education and Skills Development (MoAESD) <ul style="list-style-type: none"> ○ Postsecondary Education Division 	<ul style="list-style-type: none"> • Develops policy directions for and distributes government funds to colleges and universities, including for the health workforce
<ul style="list-style-type: none"> • MoAESD-linked agencies – example: <ul style="list-style-type: none"> ○ Postsecondary Education Quality Assessment Board 	<ul style="list-style-type: none"> • Makes recommendations to MoAESD regarding the degree programs that can be offered, including for the health workforce
<ul style="list-style-type: none"> • Ministry of Health and Long-Term Care (MoHLTC) <ul style="list-style-type: none"> ○ Health Workforce Planning and Regulatory Affairs Division 	<ul style="list-style-type: none"> • Develops policy directions for the planning and regulation of the health workforce and for labour relations in the health system
<ul style="list-style-type: none"> • MoHLTC-linked agencies – select examples: <ul style="list-style-type: none"> ○ Health Professions Appeal and Review Board ○ Health Professions Advisory Council 	<ul style="list-style-type: none"> • Monitors the activities of the professional regulatory colleges’ Inquiries, Complaints and Reports Committees and Registration or Accreditation Committees (and hears appeals concerning physicians’ hospital privileges in Ontario, pursuant to the <i>Public Hospitals Act, 1990</i>)
<ul style="list-style-type: none"> ○ Cancer Care Ontario 	<ul style="list-style-type: none"> • Plans, funds and manages the performance of cancer services (as well as the provincial renal network and access-to-care initiatives)
<ul style="list-style-type: none"> ○ Health Quality Ontario 	<ul style="list-style-type: none"> • Defines, measures and publicly reports on quality and supports quality improvement across the health system

<ul style="list-style-type: none"> ○ HealthForceOntario Marketing and Recruitment Agency 	<ul style="list-style-type: none"> ● Assists with the planning, recruitment, retention, transition and distribution of the health workforce
<ul style="list-style-type: none"> ● Other MoHLTC-linked bodies – select examples: <ul style="list-style-type: none"> ○ Health Professions Regulatory Advisory Council ○ Patient Ombudsman 	<ul style="list-style-type: none"> ● Advises the minister about whether unregulated professions should be regulated, whether regulated professions should no longer be regulated, and whether the RHPA and related acts and regulations require amendment, among other topics
<ul style="list-style-type: none"> ○ Local Health Integration Network 	<ul style="list-style-type: none"> ● Addresses complaints about private not-for-profit hospitals (called public hospitals in Ontario), long-term care homes, and what had until recently been called Community Care Access Centres (but which are now part of Local Health Integration Networks)
<ul style="list-style-type: none"> ○ Publicly funded hospitals and other health organizations that employ health workers 	<ul style="list-style-type: none"> ● Plans, funds and integrates health services in each of 14 geographically defined regions, which includes distributing government funds to organizations that employ a significant proportion of the health workforce
<ul style="list-style-type: none"> ● Courts, tribunals, commissions (e.g., human rights; information and privacy), justices of the peace, and coroners 	<ul style="list-style-type: none"> ● Employ and establish policies and procedures that influence what health workers do on a day-to-day basis
<p>Federal or national bodies</p>	
<ul style="list-style-type: none"> ● Federal/Provincial/Territorial Committee on Health Workforce 	<ul style="list-style-type: none"> ● Other bodies that can address complaints about members of the health workforce or the organizations where they work
<ul style="list-style-type: none"> ● National professional bodies – example: <ul style="list-style-type: none"> ○ Royal College of Physicians and Surgeons of Canada 	<ul style="list-style-type: none"> ● Provides a national forum for strategic discussion, information sharing, advice to deputy ministers and action on priority health-workforce issues
<p>Municipal bodies</p>	
<ul style="list-style-type: none"> ● Boards of health 	<ul style="list-style-type: none"> ● Accredits the university programs that train resident physicians for their specialty practices, writes and administers the examinations that residents must pass to become certified as specialists, and coordinates maintenance-of-certification programs to ensure the continuing professional development required for continued certification
<ul style="list-style-type: none"> ● Boards of health 	<ul style="list-style-type: none"> ● Govern the local public health agencies that hire the public health workforce needed to fulfill key public-health functions

Citizens are not consistently engaged in meaningful ways in oversight activities

While all 26 professional regulatory colleges are required to have a set proportion of their governance board be members of the public, as defined in each of their professional acts (i.e., *Medicine Act, 1991*; *Nursing Act, 1991*; and *Homeopathy Act, 2007*), these bodies differ substantially in the extent to which they have made efforts to meaningfully involve citizens and fully understand their perspectives. This includes, for example, convening panels or advisory panels and producing resources specifically for citizens.

Without these efforts, particularly those that help to explain the available oversight mechanisms to citizens, many members of the public remain unaware of the professional regulatory colleges and other oversight bodies, and how to access them, even for routine activities such as registering complaints. Furthermore, inconsistent or inadequate engagement of the public in oversight activities might also contribute to making citizens feel there is a lack of transparency in how health workers are overseen in Ontario, which creates opacity around lines of accountability in the system more generally, and could contribute to the erosion of public trust in the system.

Additional equity-related observations about the problem

While the challenges outlined in this section of the brief have important implications for the individuals receiving care, the professionals who deliver it and the oversight bodies responsible for ensuring public safety, two aspects of these challenges are particularly salient for groups prioritized in this brief (i.e., individuals who seek the majority of their care from health workers not regulated under the RHPA, and individuals who have had a negative experience with a health worker).

First, as mentioned in the section focused on financing and funding above, the current approaches for financing professional regulatory colleges (i.e., contributions from members) creates capacity imbalances between health professionals and other categories of health workers. Specifically, while mechanisms are in place to protect the public interest, associations representing health workers who are not regulated under the RHPA do not have access to the same resources as professional regulatory colleges, potentially diminishing their ability to protect the safety of the patients that seek the majority of care from these health workers (e.g., those who rely on home-care services). While not as critical across all categories of health workers, for those who are increasingly playing larger roles in the health system (e.g., personal-support workers), it is an important issue.

Second, as mentioned in the problem section, Ontario has a multitude of organizations that are involved in or intersect with the oversight of the health workforce. This busy landscape may mean that those individuals who are seeking to make a complaint or are in need of the protection that the oversight bodies provide are unable find the right organization to hear their case.

Citizens' views about key challenges related to modernizing the health workforce in Ontario

During three citizen panels convened on 11, 18 and 25 August 2017 in Hamilton, Ottawa, and Sudbury respectively, 38 ethno-culturally and socio-economically diverse citizens were provided a streamlined version of this evidence brief written in lay language. During the deliberation about the problem, citizens were asked to share what they view as the key challenges related to modernizing the oversight of the health workforce in Ontario, and what they view as being needed to recognize it as an issue that warrants attention and effort to address. To prompt discussion, citizens were specifically asked to consider their concerns (if any) about the oversight of the health workforce in Ontario. Citizens were encouraged to draw on their own experience in interacting with health workers and think of how risks are distributed across sectors, settings of care, and categories of health workers, as well as to consider challenges they have encountered in accessing oversight bodies. We summarize the key challenges identified by citizens in Table 3 (and identify the link to the previously described problem-related factors in brackets in the first column).

Table 3: Summary of citizens’ views about challenges related to modernizing the health workforce in Ontario

Challenge	Description
<p>Oversight bodies have not adapted to changes in the delivery of care (linked to factor 1)</p>	<ul style="list-style-type: none"> • Participants generally agreed that they were worried about the oversight of health workers in Ontario, and expressed that they felt the oversight system had not kept up to changes in how services are delivered • Related to this point, a number of participants described a range of specific concerns, including: <ul style="list-style-type: none"> ○ insufficient oversight of, and an overburden of work for, specific categories of health workers, such as personal-support workers, paramedics, phlebotomists, and nurse practitioners, as well as physicians; ○ insufficient training for and supervision of best practices in specific settings, such as home and community care settings, hospitals, and long-term care homes; ○ insufficient oversight and limited accountability of third-party home- and community-care providers (e.g., accountability between CCAC and personal-support workers) ○ an inability among patients to advocate for themselves should they be harmed when accessing healthcare services, particularly vulnerable populations including those with dementia, elderly adults, Indigenous peoples, and those with physical or intellectual disabilities; and ○ lack of flexibility in the oversight of health workers to consider those settings with increased risk (e.g., rural communities)
<p>The many bodies responsible for the oversight and administration of the health workforce makes navigating the oversight system challenging and may be inefficient (linked to factor 2)</p>	<ul style="list-style-type: none"> • Participants expressed that they were largely unclear about what the roles and responsibilities actually were for the oversight bodies (i.e., professional regulatory colleges), professional associations, healthcare organizations and the government in overseeing health workers • One participant noted how this led to blurred lines of accountability and uncertainty about who to contact in the event of a harmful incident • Several participants described how this confusion would deter them and other Ontarians from registering complaints about health workers, with one participant sharing an experience that confirmed this • Similarly, two participants expressed frustration with the extent of administration that went into the oversight of the health workforce, both in terms of redundancies across oversight bodies and in the extensive administrative placed on health workers, and some participants expressed concerns that this inefficiency could take away from the time spent on patient care
<p>There is insufficient emphasis placed on the soft skills and personalization required to provide high-quality patient-centred care in the current oversight framework (linked to factor 3)</p>	<ul style="list-style-type: none"> • Several participants expressed their frustration that health workers did not pay enough attention to developing their soft skills to address individual patient needs, including listening to unique experiences and carefully considering their history, appropriately communicating diagnoses, or exploring solutions outside of their usual practice (e.g., undertaking additional research to determine other approaches, or considering complementary and alternative therapies) • Participants attributed this to a number of factors including: <ul style="list-style-type: none"> ○ lack of training in soft skills (e.g., communication, compassion, and administration to improve coordination of care); ○ lack of emphasis on soft skills in practice guidelines and in oversight frameworks; ○ fear among professionals of diverging from treatment guidelines due to possible repercussions should the patient have an adverse reaction; and ○ overburdening of health workers, particularly in community settings
<p>Oversight bodies have not been set up in a way that prioritizes the interests of citizens and patients (linked to factor 6)</p>	<ul style="list-style-type: none"> • A few participants at each panel noted that they felt oversight bodies (specifically the professional regulatory colleges) prioritized the interests of their professional registrants rather than serving in the interest of citizens and patients, with one participant stating that “oversight bodies were often protective and defensive of their own professionals”

	<ul style="list-style-type: none"> • Two participants discussed how the large number of oversight bodies that exist create silos and competition among health workers, which they stated as one of the dynamics that has contributed to a focus on protecting professional ‘turf,’ rather than serving the public • One participant described how the complaints process that is critical to the work of oversight bodies is reactive, relying on individual patients to act as advocates for themselves when they have complaints, when it should be proactive and focused on ensuring high-quality care
<p>Finding information about health workers and their oversight bodies is difficult and there are limited opportunities for patients to engage in oversight efforts (linked to factor 5)</p>	<ul style="list-style-type: none"> • Many participants expressed concern with accessing information on health workers and their oversight bodies, noting that they felt it was inconsistent to rely on patient complaints when in many cases they “did not know what each health worker was and was not allowed to do” • Other participants recalled their experiences in trying to locate information on health professionals and were frustrated that it was not all contained in a central location, and that what is available is hard to understand • Many participants noted that they felt there was not a formal process for them to provide feedback to their health worker • In particular, two participants discussed how this was contrary to other sectors which rely heavily on consumers’ comments and evaluations to ensure continuous quality improvement, providing the example of student evaluations in university courses in the public sector, and platforms like ‘Yelp’ in the private sector • One participant noted how this lack of transparency and limited opportunity to contribute their own experiences served to erode public trust in the oversight of health workers
<p>Oversight of the health system fails to address risk across an individual’s entire care pathway (linked to factor 4)</p>	<ul style="list-style-type: none"> • Participants expressed feeling as though they were particularly at risk of harm when transitioning between categories of health workers and across different settings of care, with several describing gaps in services and a lack of care continuity following hospital discharge into the community • Participants described how in these circumstances many health workers did not appear to have the necessary administrative competencies required to coordinate care effectively with other individuals and organizations in the system, were not held accountable for ensuring successful transitions between providers and across settings, and were often ill-prepared during interactions to provide personalized services.

THREE ELEMENTS OF A POTENTIALLY COMPREHENSIVE APPROACH TO ADDRESSING THE PROBLEM

Many approaches could be selected as a starting point for deliberations about how to proceed with modernizing the oversight of the health workforce in Ontario. To promote discussion about the pros and cons of different ways forward, we have selected three elements of a larger, more comprehensive approach. The three elements were developed and refined through consultation with the Steering Committee and the key informants we interviewed during the development of this evidence brief. The elements are:

- 1) use a risk-of-harm approach to health-workforce oversight;
- 2) use competencies as the focus of oversight; and
- 3) employ a performance-measurement and -management system for the health workforce and its oversight bodies.

The elements could be pursued separately or simultaneously, or components could be drawn from each element to create a new (fourth) element. They are presented separately to foster deliberations about their respective components, the relative importance or priority of each, their interconnectedness and potential of or need for sequencing, and their feasibility.

The principal focus in this section is on what is known about these elements based on findings from systematic reviews. We present the findings from systematic reviews along with an appraisal of whether their methodological quality (using the AMSTAR tool) (9) is high (scores of 8 or higher out of a possible 11), medium (scores of 4-7) or low (scores less than 4) (see the appendix for more details about the quality-appraisal process). We also highlight whether they were conducted recently, which we define as the search being conducted within the last five years. In the next section, the focus turns to the barriers to adopting and implementing these elements, and to possible strategies to address the barriers.

Citizens' values and preferences related to the three approach elements

To inform the citizen panels, we included in the citizen brief the same three elements of a potentially comprehensive approach to address the problem as are included in this evidence brief. These elements were used as a jumping-off point for the panel deliberations. During the deliberations we identified several values and preferences from citizens in relation to these elements, which we summarize in Table 4.

Box 4: Mobilizing research evidence about elements of a potentially comprehensive approach for addressing the problem

The available research evidence about regulatory models for health professionals in general and for each of the elements of a potentially comprehensive approach for addressing the problem was sought primarily from Health Systems Evidence (www.healthsystemsevidence.org), which is a continuously updated database containing more than 6,000 systematic reviews and more than 2,500 economic evaluations of delivery, financial and governance arrangements within health systems. The reviews and economic evaluations were identified by searching the database for reviews addressing features of each of the approach elements and sub-elements.

The authors' conclusions were extracted from the reviews whenever possible. Some reviews contained no studies despite an exhaustive search (i.e., they were "empty" reviews), while others concluded that there was substantial uncertainty about the element based on the identified studies. Where relevant, caveats were introduced about these authors' conclusions based on assessments of the reviews' quality, the local applicability of the reviews' findings, equity considerations, and relevance to the issue. (See the appendices for a complete description of these assessments.)

Being aware of what is not known can be as important as being aware of what is known. When faced with an empty review, substantial uncertainty, or concerns about quality and local applicability or lack of attention to equity considerations, primary research could be commissioned, or an element could be pursued and a monitoring and evaluation plan designed as part of its implementation. When faced with a review that was published many years ago, an updating of the review could be commissioned if time allows.

Given very few relevant systematic reviews were identified, we also conducted complementary searches for locally relevant single studies in PubMed using the same keyword strategies. Those interested in pursuing a particular element may want to search for a more detailed description of the element or for additional research evidence about the element.

Table 4: Citizens’ values and preferences related to the three elements

Element	Values expressed	Preferences for how to implement the element
Use a risk-based approach to health-workforce oversight	<ul style="list-style-type: none"> • Equity in efforts to assess risk across all categories of health workers • Efficient use of oversight resources based on risk • Collaboration among the Ministry of Health and Long-Term Care, existing oversight bodies, health workers, patients and citizens, in developing routine processes to support a risk-based approach to the oversight of health workers • Clear lines of accountability in the risk-based oversight of health workers 	<ul style="list-style-type: none"> • Develop a common definition of risk and a standard process for assessing risk that is consistently applied to all categories of health workers • Ensure that the risk assessment tool allows for some flexibility based on a provider’s sector or setting (e.g., home and community compared to the hospital sector; urban compared to rural settings) • Group categories of health workers and allocate resources according to their level of risk (e.g., low, medium or high, or 0 – 100) • Create one standard body responsible for processing complaints • Involve both patients and citizens in the development of a process for assessing the risk of harm presented by different health workers (or groups of health workers) • Meaningfully include patients and citizens in the boards of any newly developed oversight bodies that are created as a result of the new risk-based approach, with a minimum representation of one-third
Use competencies as the focus of oversight	<ul style="list-style-type: none"> • Patient-centred care that is of the highest quality through the establishment of soft skills as a core competency for all health workers • Trustworthiness and ability to establish trusting relationships with patients and other health workers included as a core competency for all health workers • Collaboration among Ministry of Health and Long-Term Care, existing oversight bodies, health workers, patients and citizens in the establishment and implementation of core competencies 	<ul style="list-style-type: none"> • Use competencies as the focus of health-workforce oversight, emphasizing soft skills (e.g., bedside manner, desire to continue to learn, collaboration with other providers, communication and listening, ability to develop a trusting relationship, and administration and management for better care coordination) • Support in particular the participation of select categories of health workers, including nurse practitioners, pharmacists and personal-support workers, in establishing and adopting new competencies that would allow them to provide additional services • Work closely with the Ministry of Advanced Education and Skills Development to ensure that the education and training being provided matches the core competencies needed in practice • Involve government, health professionals, patients and citizens in determining core competencies for each profession • Strike a standing committee to frequently review core competencies across categories of health workers, with a suggested review every three to five years
Employ a performance-measurement and -management system for the health workforce and its oversight bodies	<ul style="list-style-type: none"> • Continuous quality improvement among health workers included in performance-measurement and -management efforts • Citizens’ values and preferences as the basis for measuring the performance of health workers • Accountability for poor performance is central to the role of oversight bodies • Empower patients and citizens with information on the performance of health workers and their oversight bodies 	<ul style="list-style-type: none"> • Provide patients with the opportunity to frequently evaluate the performance of the health workers they interact with • Introduce interdisciplinary peer oversight to improve collaboration and reduce the chance that professional self-interest will interfere with oversight processes • Design performance measurements based in part on patients’ and citizens’ preferences • Adjust complaints processes to account for patient-provider power differentials • Develop an online dashboard to publicly report performance measurements of health workers and their oversight bodies • Ensure that measurements are frequently updated, easy to access by the public and easily understandable

Element 1 – Use a risk-based approach to health-workforce oversight

This element focuses on taking a risk-based approach to health-workforce oversight, whereby risk is the statistical probability that a hazard will occur. Adopting this approach means carefully considering the following three factors before setting oversight priorities and allocating resources: 1) the potential hazards (e.g., the event or occurrence that could be avoided through oversight) that members of the public are faced with when interacting with individual health workers, when engaging with workers practising within a broader profession, and as a result of the practices of the regulatory college that oversees workers and the profession; 2) the probability of these hazards occurring; and 3) the severity of the identified harms (e.g., the consequences associated with a hazard after it occurs).(4) This approach – also referred to as a ‘risk-of-harm’ approach – builds on the notion that oversight of health workers ought to be designed and implemented to reduce the likelihood of adverse events from occurring, and therefore that targeting high-risk areas is the most efficient use of oversight resources.

Transitioning towards a risk-based approach could mean pursuing any of the following sub-elements:

- develop a common definition of risk and determine how it should be applied to health workers; and
- using a risk-based approach to:
 - select categories of health workers for oversight;
 - group categories of health workers under a smaller number of oversight bodies (while ensuring that information sharing, collaboration and joint action takes place across groups as well);
 - implement different levels of oversight (i.e., ‘right touch’ as opposed to ‘heavy handed’ or ‘light touch’); and
 - allocate resources to oversight functions.

These sub-elements align with the second feature of the problem (a focus on individual categories of health workers in the current approach to oversight) by supporting a systematic approach for determining which categories of health workers should be overseen by what mechanisms and providing a basis for their grouping, and further addresses the fourth feature of the problem (challenges with financing and funding) by specifically allocating resources with the aim of optimizing public-protection efforts.

One scoping review and two primary studies were identified that related to the element, albeit at a very general level. The scoping review provided a synthesis of the research evidence on risk-based regulation and highlighted three potential benefits associated with adopting a risk-based approach to oversight, including:

- it contributes to regulatory efficiency by targeting the approaches of the regulator to allocate resource where risk is the greatest;
- it can assist in providing a defensible rationale for decision-making, that can withstand external challenge from the court or potentially the media; and
- it can systematically improve decision-making processes by providing new evidence and insights into potential risk.(4)

One of the single studies identified suggested that a risk-based approach could help to re-orient the focus of oversight to protecting patient outcomes and improving collaboration across regulators.(5) The same primary study also provided insights into the key procedural elements of adopting a risk-based approach that ought to be considered, which include:

- explicitly deciding on a common definition of risk;
- establishing the amount of risk that an organization is prepared to accept or be exposed to at any given time (which includes acknowledging that zero risk is not an achievable target);
- putting in place a robust and efficient surveillance system that is based on both qualitative and quantitative data; and
- collaborating across oversight bodies to share monitoring data in order to develop a more precise and effective risk-based approach.(5)

The other primary study provided insights related to the dimension of the sub-element focused on using a risk-based approach to group categories of health workers under a smaller number of oversight bodies. The study highlighted that it is critical to consider the possibility that some categories of health workers that are not currently regulated under the RHPA may have some concerns about becoming regulated, especially when bundled with other regulated professions.⁽⁶⁾ In particular, through conducting interviews with naturopaths, homeopaths and traditional Chinese medicine practitioners throughout the process of becoming regulated in Ontario, the study revealed four primary concerns from these providers: 1) increased financial burden; 2) reduced scope of practice; 3) unfair registration standards; and 4) medicalization of their practice.⁽⁶⁾

In addition to identifying research evidence, we conducted a jurisdictional scan to establish the extent to which Ontario and four other comparative jurisdictions have implemented a risk-based approach. Table 5 provides an overview of what harms are currently considered and the way in which a risk-based approach has been implemented in each of the jurisdictions, while Table 6 focuses on what categories of health workers are the focus of oversight and how some categories of health workers have been grouped together under workforce oversight bodies.

On the whole, scanning other jurisdictions suggests that there has been a focus on the potential risk of harm posed by individual health workers rather than on other levels within the health system (such as the risks posed by the broader category of health worker or by oversight bodies themselves). The exception to this appears to be in the U.K., where harms arising from inadequate workforce oversight have been considered through the role that the Professional Standards Authority plays in overseeing the functioning of each professional regulatory council. Furthermore, it should be noted that the harms detailed in Table 5 focus almost exclusively on factors intrinsic to health workers and health-workforce oversight bodies (e.g., features of professionals' practice, including intervention complexity, contexts and environments in which professionals work, professional agency, and patient vulnerability), rather than extrinsic factors such as the size of the profession or public risk perception.

In Ontario, as of 2011 an explicit risk-based framework has been used to determine what new categories of health workers should be selected for regulation. There are three primary criteria on which categories of health workers are judged: 1) whether the health workers are involved in duties, procedures, interventions or activities with the significant potential for physical or mental harm to patients; 2) whether the health worker is engaged in making decisions or judgments that can have a significant impact on a patient's physical or mental health; and 3) whether there is a significant potential of risk of harm occurring within the health workers' duties and activities.⁽⁷⁾

The explicit risk-based framework that has been implemented in Ontario (relatively recently and only for new candidate categories of health workers) differs from the approach used in Ireland, New Zealand and Australia where historical legacies of guilds and councils (rather than a systematic approach to evaluating potential for harm) have determined which categories of health workers have been regulated through a dedicated oversight body. In the U.K., despite there being some lasting legacies of councils (e.g., for some professions only, separate geographic councils), a particularly innovative approach has been used whereby the lowest-risk categories of health workers are subject to employer controls and the high-risk categories are subject to statutory regulation, with a voluntary level 'in between' for professionals who may at some point become regulated.

Table 5: Whether and how a risk-based approach is used in health-workforce oversight in Ontario and in select comparator jurisdictions

		Jurisdiction			
Ontario		Ireland	New Zealand	Australia	United Kingdom
Harms considered	<ul style="list-style-type: none"> • Primary <ul style="list-style-type: none"> ○ Serious physical harm [that] may result from controlled acts or from an omission from them ○ Harms arising from inadequate professional conduct • Secondary <ul style="list-style-type: none"> ○ Harms arising from inadequate education and training ○ Harms arising from restrictions on mobility 	<ul style="list-style-type: none"> • Harms arising from inadequate education and training and from inadequate professional conduct 	<ul style="list-style-type: none"> • Harms arising from inadequate education and training and from inadequate professional conduct 	<ul style="list-style-type: none"> • Harms arising from inadequate education and training and from inadequate professional conduct (and from constraints on inter-state mobility) 	<ul style="list-style-type: none"> • Harms arising from inadequate education and training and from inadequate professional conduct • Harms arising from inadequate workforce regulation (with good practices articulated in the Standards of Good Regulation)
Bodies involved in preventing harm	<ul style="list-style-type: none"> • Primary <ul style="list-style-type: none"> ○ Professional regulatory colleges • Secondary <ul style="list-style-type: none"> ○ Health Professions Regulatory Advisory Council ○ Health Professions Appeal and Review Board ○ Patient Ombudsman ○ Postsecondary Education Quality Assessment Board ○ National professional bodies 	<ul style="list-style-type: none"> • Primary <ul style="list-style-type: none"> ○ Councils 	<ul style="list-style-type: none"> • Primary <ul style="list-style-type: none"> ○ Professional boards and councils ○ New Zealand Health Practitioners Disciplinary Tribunal (centralized body for investigations and discipline) 	<ul style="list-style-type: none"> • Primary <ul style="list-style-type: none"> ○ National boards of health (albeit supported through state-level legislation) ○ Australian Health Practitioner Regulatory Authority (centralized body for investigations and discipline, with the exception of one state – New South Wales) 	<ul style="list-style-type: none"> • Primary <ul style="list-style-type: none"> ○ Professional councils ○ Professional Standards Authority (centralized body for the regulation of the regulators)
Use of a risk-of-harm approach in selecting categories of health workers for regulation	<ul style="list-style-type: none"> • Yes (since 2011) 	<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • Yes, with the lowest-risk occupations subject to employer controls and the high-risk occupations subject to statutory registration

Jurisdiction					
	Ontario	Ireland	New Zealand	Australia	United Kingdom
Use of a risk-of-harm approach in grouping categories of health workers under the same oversight body	<ul style="list-style-type: none"> No (almost as many professional regulatory colleges as professions) 	<ul style="list-style-type: none"> Yes (a ‘catch all’ council regulates 14 categories of health workers – versus one for each of physicians, nurses and midwives, pharmacists, dental professionals, and emergency care professionals) 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> No, with one exception (one national board of health covers all Aboriginal and Torres Strait Islander health workers) 	<ul style="list-style-type: none"> Yes (a ‘catch-all’ council and a tiered system of voluntarily regulated categories of health workers exist alongside 10 profession-specific councils) No, all professional councils are overseen by the Professional Standards Authority
Use of a risk-of-harm approach in allocating resources to oversight mechanisms	<ul style="list-style-type: none"> Yes, but inconsistent across professional regulatory colleges and oversight functions (e.g., some colleges use an alternative dispute resolution for low-risk matters rather than undertaking a full investigation) 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Yes (Australian Health Practitioner Regulatory Authority allocates a disproportionate share (70%) of their budget to the medical and nursing/midwifery national boards of health) 	<ul style="list-style-type: none"> Yes

Despite the fact that Ontario has taken steps towards using risk-of-harm assessments to inform decision-making processes about regulating new categories of health workers, little effort has been made in the province to use these insights as a way to logically group professional regulatory bodies with similar levels of risk. This contrasts the approaches taken in Ireland, Australia and the U.K., where professionals have been grouped by functional area. In the case of the U.K., geographic considerations are used to group professionals as well (e.g., Pharmaceutical Society of Northern Ireland).

As previously mentioned in the brief, grouping professionals based on their potential for harm may allow for more consistent oversight across colleges, and provide a voice for smaller categories of health workers that might otherwise get lost amidst larger oversight bodies. Furthermore, it could be used as a way to gain efficiencies through economies of scale by reducing the number of oversight bodies in Ontario. The reorganization of professional regulatory colleges also presents the opportunity to bring health workers who are not currently regulated by the RHPA under existing oversight bodies based on their risk of harm, functional area, or using a ‘catch-all’ approach such as in the case of Ireland or the U.K., (e.g., Health and Care Professions Council acts as the regulatory body for biomedical scientists, arts therapists, chiropractors, dietitians, occupational therapists, and paramedics, to name a few).

Regardless of how groups are formed, all jurisdictions have chosen to leave a number of health workers without oversight bodies. While it can be argued that these omissions may pose challenges in terms of ensuring patient safety, developing consistent standards of education, and collecting data about these health workers (e.g., their demographic characteristics, geographical distribution, level of training, etc.), there is also a balance to strike between pursuing oversight mechanisms that actually improve patient safety and ensuring that they do not become detrimental to patient care. Therefore, as mentioned above, the U.K. has proposed a potential middle ground of voluntary regulation (or voluntary oversight). In this system, health-worker associations voluntarily participate in adhering to the standards set by the Professional Standard Authority (national body that oversees the 10 professional regulatory councils), and in return receive acknowledgment and accreditation under this program.

For those who want to know more about the primary studies summarized under this element (or obtain citations for the primary studies), a fuller description of the primary studies is provided in Appendix 1a.

Table 6: How health professions are grouped for oversight purposes in Ontario and in select comparator jurisdictions

Jurisdiction					
	Ontario	Ireland	New Zealand	Australia	United Kingdom
Groupings of health professions - Overview	<ul style="list-style-type: none"> • Twenty-six professional regulatory colleges 	<ul style="list-style-type: none"> • Five councils based on institutional history and a ‘catch-all’ council that regulates an additional 14 categories of health workers (with the potential of more to be added) 	<ul style="list-style-type: none"> • Sixteen professional boards and councils based on functional areas • New Zealand Health Practitioners Disciplinary Tribunal 	<ul style="list-style-type: none"> • Fourteen national boards of health based on functional areas • Australian Health Practitioner Regulatory Authority 	<ul style="list-style-type: none"> • Ten professional councils based on functional areas and sometimes geography and a ‘catch-all’ professional council, as well as a tiered system of voluntarily regulated health workers • Professional Standards Authority
Groupings of health professions - Specifics	<ul style="list-style-type: none"> • Ad hoc groupings for select professionals: <ul style="list-style-type: none"> ○ nurses (registered nurses, nurse practitioners, and registered practical nurses) ○ pharmacists and pharmacy technicians ○ audiologists and speech-language pathologists 	<ul style="list-style-type: none"> • Historically based councils: <ul style="list-style-type: none"> ○ physicians ○ nurses and midwives ○ pharmacists ○ dental professionals ○ emergency care professionals • ‘Catch-all’ council (CORU) regulates: <ul style="list-style-type: none"> ○ clinical biochemists ○ dietitians ○ dispensing opticians ○ medical scientists ○ occupational therapists ○ optometrists ○ orthoptists ○ physiotherapists ○ podiatrists ○ psychologists ○ radiographers ○ social-care workers ○ social workers ○ speech-language pathologists 	<ul style="list-style-type: none"> • Professional boards and councils: <ul style="list-style-type: none"> ○ chiropractors ○ dental professionals ○ dietitians ○ physicians ○ laboratory scientists and operating technicians ○ radiation technologists ○ midwives ○ nurses ○ occupational therapists ○ optometry professionals ○ osteopaths ○ pharmacists ○ physiotherapists ○ podiatrists ○ psychologists ○ psychotherapists 	<ul style="list-style-type: none"> • National boards of health: <ul style="list-style-type: none"> ○ Aboriginal health professionals ○ traditional Chinese medicine ○ chiropractors ○ dental professionals ○ physicians ○ medical radiation professionals ○ nurses and midwives ○ occupational therapists ○ optometry ○ osteopaths ○ pharmacists ○ physiotherapists ○ podiatrists ○ psychologists 	<ul style="list-style-type: none"> • Functionally based professional councils: <ul style="list-style-type: none"> ○ chiropractors ○ dental professionals ○ physicians ○ optometry professionals ○ osteopaths ○ nurses and midwives ○ pharmacists • Functionally and geographically based professional councils: <ul style="list-style-type: none"> ○ pharmacists in Northern Ireland ○ social-care workers in Northern Ireland • ‘Catch-all’ professional council <ul style="list-style-type: none"> ○ arts therapists ○ biomedical scientists ○ chiropodists/podiatrists ○ clinical scientists ○ dietitians ○ hearing-aid dispensers ○ occupational therapists ○ operating department practitioners ○ orthoptists ○ paramedics ○ physiotherapists ○ practitioner psychologists ○ prothetists and orthotists ○ radiographers

					<ul style="list-style-type: none"> ○ social workers in England ○ speech and language therapists
<p>Categories of health workers that are not part of the groupings</p>	<ul style="list-style-type: none"> ● Examples include: <ul style="list-style-type: none"> ○ assistants of many types, such as <ul style="list-style-type: none"> ▪ anesthesia ▪ dental ▪ medical laboratory ▪ physiotherapy ○ athletic therapists ○ clinical specialist radiation therapists ○ community health and development workers ○ community-support workers ○ family home visitors ○ hearing-instrument practitioners ○ herbalists ○ lactation consultants ○ marriage and family therapists ○ medical geneticists ○ osteopaths ○ paramedics ○ pedorthists ○ peer-support workers ○ personal-service workers (e.g., ear piercers, tattoo artists) ○ personal-support workers ○ phlebotomists ○ Reiki practitioners 	<ul style="list-style-type: none"> ● Examples include: <ul style="list-style-type: none"> ○ acupuncturists ○ anthroposophic medicine practitioners ○ ayurveda ○ chiropractors ○ herbal medicine ○ homeopaths ○ massage therapists ○ naprapaths ○ naturopaths ○ neural therapists ○ osteopaths ○ traditional Chinese medicine practitioners 	<ul style="list-style-type: none"> ● Examples of those seeking to be regulated under the act: <ul style="list-style-type: none"> ○ clinical physiologists ○ practitioners of traditional Chinese medicine ○ paramedics ○ perfusionists ○ Western medical herbalists 	<ul style="list-style-type: none"> ● Examples include: <ul style="list-style-type: none"> ○ acupuncturists ○ chiropractors ○ herbalists ○ homeopaths ○ kinesiologists ○ massage therapists ○ naturopaths ○ nutritional therapists ○ osteopaths ○ physical therapists ○ reflexologists ○ traditional Chinese medicine practitioners 	<ul style="list-style-type: none"> ● Those participating voluntarily with the Professional Standards Authority’s accredited registers program <ul style="list-style-type: none"> ○ acupuncturist ○ adolescent psychotherapists ○ Alexander technique practitioners ○ Bowen therapists ○ child psychotherapists ○ Christian counsellors ○ Christian psychotherapists ○ clinical technologists ○ craniosacral therapists ○ foot-health practitioners ○ genetic counsellors ○ graduate sport rehabilitators ○ healthcare science practitioners ○ homeopaths ○ hypnotherapists ○ kinesiologists ○ massage therapists ○ naturopaths ○ nutritional therapists ○ psychotherapists ○ reflexologists ○ Reiki healers ○ Shiatsu therapists ○ yoga therapists ● Those not participating <ul style="list-style-type: none"> ○ physician associates ○ healthcare assistants ○ nursing associates ○ complementary therapy professionals not covered by relevant accredited registers ○ psychological therapy practitioners not covered by accredited registers ○ care workers; care assistants ○ home-care workers ○ personal assistants

Element 2 – Use competencies as the focus of oversight

The second element focuses on using competencies as any alternative to scopes of practice and controlled acts to guide health-workforce oversight. This is an alternative to the traditional focus on narrowly defined skill sets (sometimes referred to as a learning-objective-based approach) in professional education, training and development. Competencies differ from more narrowly defined skills in that they can be considered to be a broader approach that includes whether or not the individual health worker has the technical knowledge and ability required for providing specific health services, but also the soft skills required to ensure high-quality, patient-centered services (e.g., listening and communication, ability to work with others, and the administration and management abilities that translate well to effective care coordination).

Adopting a competency-based focus to oversight may allow for health workers to more easily adapt the services they are allowed to provide, after demonstrating that they have the necessary competencies to perform them. This approach, however, also comes with a number of considerations, including the possible benefits (for example, improving access to services) and harms (for example, more health workers offering services with a particular competency, but possibly not the full spectrum of competencies required to react to the full range of things that could go wrong during the service). This shift in focus could mean pursuing any of the following:

- develop a process to get input from citizens, health workers and existing oversight bodies about how to define the core competencies for each category of health worker;
- determine an approach to update the core competencies as the health system evolves;
- expand the use of competencies across all categories of health workers in:
 - educational programs preparing candidates for entry into a category of health workers;
 - training programs involved in preparing health workers for changes to what they are allowed to do; and
 - continuing professional-development programs that support health workers to safely do what they are allowed to do under existing oversight mechanisms; and
- use competencies – instead of scopes of practice and controlled acts – as the focus of health-workforce oversight, including to evaluate the seriousness of complaints and other investigations.

These sub-elements align with features one and three of the problem (no adaptations to the oversight mechanism and a primary focus on scopes of practice) by supporting a more flexible approach to the oversight of health workers that is better able to adapt to changes in public expectations, emerging imperatives in the provision of high-quality care, and new models of service delivery. Further, taking a competency-based approach to workforce oversight helps to align current workforce supports, which are increasingly adopting a focus on competencies (e.g., training, entry-to-practice exams), with the way in which professionals are overseen.

We identified one systematic review and four primary studies that relate to the four sub-elements above. The systematic review sought to identify reliable tools to measure competencies among nurses internationally. While the review found that a number of tools are able to accurately predict the extent to which nurses employ the competencies they were taught during training, the competencies assessed in each tool varied significantly, indicating a lack of consensus on what core competencies are needed in the nursing profession.⁽⁸⁾

An older primary study addressed the first sub-element and detailed the process and lessons learned from an effort to define common competencies for registered nurses across Canada. The results suggested that a successful process for defining competencies across a profession requires the following characteristics:

- a clear but broad mandate to give those engaged the flexibility to decide on detailed goals, working processes, and a plan;
- the development of a work plan with targeted tasks and timelines to keep the project on track; and

- shared enthusiasm among involved stakeholders as well as the support of individuals in leadership positions during the transition.(9)

Two primary studies were found that spoke to the third sub-element, with one addressing the training of health workers and the other addressing the recruitment of health workers using a competency-based framework. The first study evaluated the Care of the Elderly Diploma Program implemented as part of Alberta's medical residency training and compared the results of training medical residents based on a learning-objectives curriculum (prior to 2010) to one based on core competencies (2010 onwards).(10) The study found no difference between the two programs in the learning of medical residents, however, it found significant improvements in specific dimensions of the CanMEDS framework, specifically the roles of communicator, collaborator, manager and scholar.(10) The second study assessed the use of a competency-based framework and competency-based interviews for the recruitment of nurses, midwives and allied health professionals in the National Health Service in the U.K. The study found that participants in interviews viewed a change away from standard entrance interviews positively, and felt that it resulted in the identification of stronger candidates at the application stage. However, the study also reported challenges in determining common competencies, and difficulties in defining values and competency-based interview questions.(11)

Finally, the other two primary studies identified barriers to and facilitators of implementing competency-based educational programs. The first (recent) study examined the implementation of a competency-based approach to professional education on pain management. The results suggested that successful program implementation was facilitated by the existence of an environment that was supportive of the shift towards a competency-based approach, and by administrative support throughout its implementation.(12) The second study identified five areas of resistance that presented barriers to the implementation of a competency-based medical education program:

- a lack of interest in change;
- concern regarding the evidence base supporting competency-based education in medicine;
- the administrative burden associated with implementing pilot programs to test the new approach;
- financial concerns regarding whether a competency-based approach will require more resources than a learning-objective-based approach; and
- difficulty balancing service requirements with education.(13)

In addition to this research evidence, we conducted a jurisdictional scan to highlight whether and how competencies have been used as the focus of workforce oversight in Ontario and four other comparator jurisdictions (Table 7). In Ontario, the use of competencies has been unevenly implemented across professional regulatory colleges, with the most advanced being the use of the Royal College of Physicians and Surgeons of Canada competencies for physicians and the use of competencies in the entry-to-practice exams for registered nurses. This is in contrast to Australia and the U.K. where competency-based oversight has been implemented more systematically across all oversight functions.

Table 7: Whether and how competencies are the focus of the oversight of the health workforce in Ontario and in select comparator jurisdictions

	Ontario	Ireland	New Zealand	Australia	U.K.
Use of competencies as the focus of the oversight of educational programs involved in preparing candidates for entry into the profession	<ul style="list-style-type: none"> • Not consistently within or across categories of health workers (e.g., not all medical schools use the Royal College of Physicians and Surgeons of Canada (RCPSC) CanMEDS competencies) 	<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • Yes 	<ul style="list-style-type: none"> • Yes 	<ul style="list-style-type: none"> • Yes
Use of competencies as the oversight of training programs involved in preparing candidates for entry into areas of specialty	<ul style="list-style-type: none"> • Not consistently (e.g., yes for residency programs given RCPSC requirements) 	<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • Yes 	<ul style="list-style-type: none"> • Yes 	<ul style="list-style-type: none"> • Yes
Use of competencies as the focus of the oversight of training programs involved in preparing health workers for changes to what they are allowed to do	<ul style="list-style-type: none"> • Not consistently 	<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • Yes 	<ul style="list-style-type: none"> • Yes (national boards of health define competencies for each profession and accredit the institutions and programs training them) 	<ul style="list-style-type: none"> • Yes
Use of competencies as the focus of the oversight of continuing professional-development programs involved in ensuring that health workers can safely do what they are allowed by regulation to do	<ul style="list-style-type: none"> • Not consistently 	<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • Yes 	<ul style="list-style-type: none"> • Yes 	<ul style="list-style-type: none"> • Yes
Use of competencies as the focus of professional regulatory colleges and many of the functions they perform	<ul style="list-style-type: none"> • Not consistently (e.g., fellowship in the RCPSC as a requirement for registering as a specialist has this effect) 	<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • Yes 	<ul style="list-style-type: none"> • Yes 	<ul style="list-style-type: none"> • Yes

For those who want to know more about the systematic reviews and primary studies summarized under this element (or obtain citations for the reviews and primary studies), a fuller description of the systematic reviews and primary studies are provided in Appendix 2a and Appendix 2b.

Element 3 – Employ a performance-measurement and -management system for the health workforce and its oversight bodies

This element focuses on implementing a performance-measurement and -management system for the health workforce and its oversight bodies to help improve the ability of citizens and policymakers to judge whether or not the needs of the public and of the health system are being met.

Sub-elements of this option may include:

- establishing how oversight mechanisms affect performance-measurement indicators;
- introducing an independent body to develop and implement a performance-measurement and -management system;
- developing metrics that allow citizens and policymakers to judge and, when needed, demand improvements to the performance of the health workforce or its oversight bodies; and
- establishing clear processes for regular audits of the performance of oversight bodies, which would include:
 - clarifying who could be accountable for what parts of a performance-management system;
 - separating complaints management from other aspects of oversight;
 - allocating the licensing and registration of all categories of health workers to a single independent body; and
 - giving an explicit role in the oversight mechanism to key organizations in the health system (e.g. LHINs and healthcare institutions).

These sub-elements align with features five and six identified in the ‘problem’ section of this evidence brief (difficulty finding information on how the health workforce and its oversight bodies are performing, and inconsistent engagement of citizens in meaningful ways in oversight activities) by clearly defining what performance-measurement indicators should be collected, who is responsible for their collection and reporting, and ensuring that the performance-measurement and -management indicators are easily interpreted and meaningful to the public.

In searching for research evidence, we found one systematic review and two primary studies that looked at aspects of performance measurement and management for the health workforce.(14-16) The systematic review focused on the characteristics of complaints registered with oversight bodies, while the two primary studies focused on mandatory reporting.(14-16)

The review found that those who are less likely to register a formal complaint with an oversight body are significantly older, live with a disability, or reside in either an economically deprived area or a rural community.(16) The review suggested that these categories of individuals should be kept in mind when making changes to complaints processes.(16)

One of the two primary studies examined the characteristics of reports from a mandatory reporting scheme in Australia and found that most reporting of health-worker misconduct came to the attention of oversight bodies through a third party – usually a patient or a colleague – and was often from those within the same category of health worker. The study found that even with wide-reaching mandatory reporting there are still four types of barriers to notifying oversight bodies:

- 1) uncertainty or unfamiliarity with legal requirements;
- 2) fear of retaliation;
- 3) lack of confidence that appropriate action will be taken; and
- 4) loyalty to colleagues.(14)

The second primary study found that successful mandatory reporting schemes relied on three key factors:

- 1) a high bar for the reporting of impairment;
- 2) appropriate response to reports that are considered fair and timely; and

3) availability of preventive assistance.(15)

With regards to performance measurement and management of oversight bodies, we found one primary study that addressed mechanisms to regulate and improve the transparency of oversight bodies. The study focuses on developing metrics that can inform decision-making. It found that implementing a performance-management program requires an inclusive approach that includes all key stakeholders.(17) According to the study, this facilitated the development of a framework and a set of measures that meet the needs of stakeholders and maximize their commitment to implementing and reporting on the measurements.(17)

In addition to examining the research evidence, we conducted a jurisdictional scan to see whether and how the performance of health workers and their oversight bodies is measured and managed in Ontario and in four comparator jurisdictions. In all jurisdictions except the U.K., the primary bodies responsible for reporting on metrics to the public are the oversight bodies themselves (e.g., the professional regulatory colleges or councils). In the U.K., an overarching body called the Professional Standards Authority is responsible for collecting and reporting on these metrics, as well as for conducting annual audits on each of the professional councils.

In Table 8 we have grouped indicators by the oversight functions that oversight bodies perform. Compared to the four other jurisdictions, Ontario publicly reports on relatively few performance indicators, with notable gaps in both complaints and discipline indicators, and in offence indicators. It is important to note, however, that in Ontario, the quantity and quality of measurements available to the public differs substantially across oversight bodies. This is not the case for either Australia or the U.K., where a central authority has been delegated the responsibility to regularly report on each of these metrics, providing a much more comprehensive and consistently applied approach across all categories of regulated health workers.

Table 8: Whether and how performance is measured and managed in Ontario and in select comparator jurisdictions

	Ontario	Ireland	New Zealand	Australia	U.K.
Primary bodies responsible for reporting metrics	<ul style="list-style-type: none"> Professional regulatory colleges* 	<ul style="list-style-type: none"> Councils* 	<ul style="list-style-type: none"> New Zealand Health Practitioners Tribunal (for professions) Professional boards and councils 	<ul style="list-style-type: none"> Australian Health Practitioner Regulatory Authority (for professions) 	<ul style="list-style-type: none"> Professional Standards Authority (for professional councils) Professional councils (for professions)*
Registration indicators	<ul style="list-style-type: none"> Number of new registered professionals Number of active professionals Students enrolled in accredited programs Source of registrants Periodic assessment of indicators related to transparency of 	<ul style="list-style-type: none"> Number of registered professionals 	<ul style="list-style-type: none"> Number of candidates who sat professional exams Number of candidates who passed professional exams Number of registered professionals Status of registered professionals 	<ul style="list-style-type: none"> Number of registrants by profession Applications for registration by profession and by outcome Number of open notifications Change to status of open notification 	<ul style="list-style-type: none"> Number of health professionals in training for each regulatory council Number of registered professionals Registrants by profession Status of registered professionals

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	Ontario	Ireland	New Zealand	Australia	U.K.
	registration processes		<ul style="list-style-type: none"> • Number of professionals practising within each scope of practice 		<ul style="list-style-type: none"> • Number of revalidated professionals
Complaints and discipline indicators	<ul style="list-style-type: none"> • Public registry of complaints and outcomes (including pending and completed cases) • Number of hearings referred to a disciplinary committee 	<ul style="list-style-type: none"> • Public registry of complaints and outcome 	<ul style="list-style-type: none"> • Number of referrals to conduct committee • Number of referrals to the Health Practitioners Tribunal • Number of referrals to the performance-assessment committee • Source of referral for council meeting for performance processes 	<ul style="list-style-type: none"> • Volume of notifications received by profession • Number of interim actions by outcome and by time frame • Number of notifications considered for acceptance and outcome of acceptance process • Number, timeliness and outcomes of assessments by profession • Number, timeliness and outcomes of investigations 	<ul style="list-style-type: none"> • Volume of registered complaints • Public registry of all complaints and their outcomes • Volume of inquiries on professionals' fitness to practise • Volume of assessments of health professionals' fitness to practise • Volume of investigations of professionals' fitness to practise • Outcomes of complaint investigations • Source of complaints
Offence indicators	<ul style="list-style-type: none"> • None found 	<ul style="list-style-type: none"> • Number of conditions imposed • Number of cancellations under the Health Practitioners Competence Assurance Act by outcome 	<ul style="list-style-type: none"> • Number of professionals currently on probationary period • Number of suspended professionals • Number of orders of attendance at education program following performance assessment • Number, nature, source, and outcomes 	<ul style="list-style-type: none"> • Number of statutory offences by profession • Number of statutory offences by type and by outcome 	<ul style="list-style-type: none"> • Number of statutory offences by profession

	Ontario	Ireland	New Zealand	Australia	U.K.
			of professional charges		
Monitoring and compliance indicators	<ul style="list-style-type: none"> • Number of applications open for reinstatement of registration (included in public registry) • Monitoring cases open by profession 	<ul style="list-style-type: none"> • None found 	<ul style="list-style-type: none"> • Monitoring cases open by profession 	<ul style="list-style-type: none"> • Monitoring cases open by profession • Monitoring cases open by monitoring stream 	<ul style="list-style-type: none"> • None found
Public engagement and transparency indicators	<ul style="list-style-type: none"> • Number of policy consultations • Number of calls taken through advisory services • Number of website visits and social media numbers 	<ul style="list-style-type: none"> • Number of public consultations • Number of website visits • Number of individuals registered for newsletter 	<ul style="list-style-type: none"> • None found 	<ul style="list-style-type: none"> • None found 	<ul style="list-style-type: none"> • Number of responses to public consultations

For those who want to know more about the systematic review and primary studies summarized under this element (or obtain citations for the review and primary studies), a fuller description of the systematic reviews and primary studies are provided in Appendix 3a and Appendix 3b.

Additional equity-related observations about the three elements

No reviews were identified that directly addressed either of the prioritized groups, but one of the single studies related to element 1 had insights that could be relevant to one of the groups (individuals who routinely seek care from health workers who are not regulated under the RHPA). Specifically, the study suggested that some health workers feared moving towards regulation, because it could affect:

- 1) how expensive it is to practise given the additional financial obligation to register with a college; and
- 2) the nature and scope of practice, as a result of tighter restrictions, which could result in challenges delivering the care patients seek.⁽⁶⁾

Taken together, these could have knock-on effects for the patients who seek care from health workers who are not currently regulated under the RHPA in the event they became regulated. Specifically, the first issue could affect how much it costs patients to access their services, and the second may result in significant restrictions that make it challenging for these health workers to continue providing the type of care sought by their patients.

IMPLEMENTATION CONSIDERATIONS

A number of barriers might hinder the implementation of the three elements of a potentially comprehensive approach to modernizing the oversight of the health workforce in Ontario. These barriers need to be factored into any decision about whether and how to pursue any given element (Table 9).

While potential barriers exist at the levels of the patients/citizens, health workers, organizations and the system, perhaps the biggest barrier (particularly to pursuing element 1) lies in gaining political consensus in government and, to the extent that the government feels it is needed, among workforce oversight bodies (and possibly among associations of health workers). The way in which health workers are overseen in the province provides many categories of them with a significant amount of autonomy, which some groups of them may feel is being threatened with a shift towards a new approach and warrants strong resistance.

One medium-quality systematic review found the following elements critical to success when changing governance arrangements in workforce oversight:

- a clear strategy;
- good leadership that focuses on communication and building trust;
- engaging all relevant stakeholders throughout the process;
- fostering a culture that supports the change and allocates resources to facilitate the change process; and
- a flexible and reasonably paced approach.(18)

Table 9: Potential barriers to implementing the elements

Levels	Element 1 – Use a risk-of-harm approach to health-workforce oversight	Element 2 – Use competencies as the focus of oversight	Element 3: Employ a performance-measurement and -management system for the health workforce and its oversight bodies
Patient/citizen	<ul style="list-style-type: none"> • Patients/citizens may resist an approach where different types of complaints are addressed differently 	<ul style="list-style-type: none"> • Patients/citizens may resist an approach where remediation and re-education replace removal from practice 	<ul style="list-style-type: none"> • None identified
Health worker	<ul style="list-style-type: none"> • Some categories of health workers may resist being grouped with other categories of health workers for fear of reducing their independence • Some categories of health workers may not agree with the approach chosen for how to assess risk of harm 	<ul style="list-style-type: none"> • Some categories of health workers may be concerned that they will not be given as fulsome an opportunity to provide input in defining core competencies as other categories • Some categories of health workers may interpret expanding competencies to include soft skills such as professional demeanour as infringing on their autonomy to determine how they practise • Some categories of health workers may not agree with the chosen set of core competencies for each profession 	<ul style="list-style-type: none"> • Health workers and their oversight bodies may oppose having more detailed information on their performance publicly available
Organization	<ul style="list-style-type: none"> • Some oversight bodies may resist changes that imperil 	<ul style="list-style-type: none"> • Oversight bodies will likely be required to invest 	<ul style="list-style-type: none"> • Oversight bodies may resist the administrative burden of

	<p>their existence in the form they've operated in the past</p> <ul style="list-style-type: none"> • Oversight bodies may have 'legacy' cases that will continue for some time after any transition 	<p>additional resources in updating performance-measurement standards to reflect a new competency-based approach</p>	<p>recording and reporting significant amounts of data</p> <ul style="list-style-type: none"> • Oversight bodies may resist an additional layer of accountability that they may fear infringes on their autonomy
System	<ul style="list-style-type: none"> • Policymakers will face resistance among some vocal groups of health workers • Policymakers will face a one-time cost associated with making the change towards a risk-based approach 	<ul style="list-style-type: none"> • Policymakers will likely be required to allocate additional resources towards updating performance-measurement standards to reflect a competency-based approach 	<ul style="list-style-type: none"> • Policymakers will likely be required to allocate additional resources towards implementing a performance-measurement and -management system

Despite these challenges, there is a current interest in oversight mechanisms both in government and among stakeholders, which is a combination that does not regularly present itself (Table 10). Further, the coming election in 2018 may introduce a window of opportunity for introducing new oversight mechanisms. A large empirical study of policymaking processes found that two variables were consistently associated with large-scale policy reform in provinces across Canada: 1) electoral processes (e.g., new government or government leaders, campaign commitment to reform, appointment of a champion once in power, and a policy announcement in the first half of a mandate); and 2) presence of perceived fiscal crisis.⁽¹⁹⁾ Both of these factors, combined with the current attention from government and stakeholders, are present in Ontario, making this an opportune time to discuss the current approach to the oversight of the health workforce and what if any changes need to be made.

Table 10: Potential windows of opportunity for implementing the approach elements

Type	Element 1 – Use a risk-of-harm approach to health-workforce oversight	Element 2 – Use competencies as the focus of oversight	Element 3 – Employ a performance-measurement and -management system for the health workforce and its oversight bodies
General	<ul style="list-style-type: none"> • The current focus on oversight mechanisms in the province, combined with the coming 2018 election may open a window of opportunity for a new approach to workforce oversight • Both variables that are associated with large-scale policy reforms are present in Ontario (i.e., electoral processes and presence of a perceived fiscal crisis) 		
Element-specific	<ul style="list-style-type: none"> • Increased 'tightening' of resources in the health system may help to support a more efficient allocation of resources across oversight mechanisms 	<ul style="list-style-type: none"> • Having already adopted a competency-based focus in certain professional regulatory colleges for the training and professional development of health workers may ease the transition towards a focus on competency-based oversight • Other jurisdictions (e.g., the U.K. and Australia) with whom Ontario often compares its health system have adopted a competency-based focus for workforce oversight 	<ul style="list-style-type: none"> • Increasing transparency in relation to health workers and their oversight bodies may increase public trust

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APPENDICES

The following tables provide detailed information about the systematic reviews identified for each option. Each row in a table corresponds to a particular systematic review and the reviews are organized by element (first column). The focus of the review is described in the second column. Key findings from the review that relate to the option are listed in the third column, while the fourth column records the last year the literature was searched as part of the review.

The fifth column presents a rating of the overall quality of the review. The quality of each review has been assessed using AMSTAR (A MeaSurement Tool to Assess Reviews), which rates overall quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. It is important to note that the AMSTAR tool was developed to assess reviews focused on clinical interventions, so not all criteria apply to systematic reviews pertaining to delivery, financial, or governance arrangements within health systems. Where the denominator is not 11, an aspect of the tool was considered not relevant by the raters. In comparing ratings, it is therefore important to keep both parts of the score (i.e., the numerator and denominator) in mind. For example, a review that scores 8/8 is generally of comparable quality to a review scoring 11/11; both ratings are considered “high scores.” A high score signals that readers of the review can have a high level of confidence in its findings. A low score, on the other hand, does not mean that the review should be discarded, merely that less confidence can be placed in its findings and that the review needs to be examined closely to identify its limitations. (Lewin S, Oxman AD, Lavis JN, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP): 8. Deciding how much confidence to place in a systematic review. *Health Research Policy and Systems* 2009; 7 (Suppl1):S8.

The last three columns convey information about the utility of the review in terms of local applicability, applicability concerning prioritized groups, and issue applicability. The third-from-last column notes the proportion of studies that were conducted in Canada, while the second-from-last column shows the proportion of studies included in the review that deal explicitly with one of the prioritized groups. The last column indicates the review’s issue applicability in terms of the proportion of studies focused on modernizing the professional regulation. Similarly, for each economic evaluation and costing study and for primary studies, the last three columns note whether the country focus is Canada, if it deals explicitly with one of the prioritized groups and if it focuses on modernizing the professional regulation.

All of the information provided in the appendix tables was taken into account by the evidence brief’s authors in compiling Tables 1-10 in the main text of the brief.

Appendix 1a: Primary studies relevant to Element 1 – Use a risk-of-harm approach to health-workforce oversight

Sub-element	Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
Develop a common definition of risk and determine how it should be applied to health workers	Implementation of a risk-based regulatory system and its use in health and social care (5)	<i>Publication date:</i> 2008 <i>Jurisdiction studied:</i> U.K. <i>Methods:</i> Health reform description	Health and social care providers working in the National Health System	Description of the 2005 and 2006 decision of the health commission of the National Health Service to implement a risk-based approach to quality assurance	<p>The overview of the health reform described that regulators who adapt a risk-based approach either demonstrated or expected to attain the following benefits: optimizing use of resources; focus on risks; sound and consistent basis for justifying their approach and actions; and preventing adverse outcomes in terms of the tolerance for risk.</p> <p>Over the course of its implementation for three years, the new risk-based approach was found to result in improved efficiency by decreasing audit visits to 30% of establishments each year.</p> <p>The overview of the reform identified a number of issues and improvements that could be made to the risk-based approach that has been implemented in the U.K. These include: challenges defining and interpreting risk; adopting a robust and efficient surveillance system; ensuring there is continual updating of risks; fostering a risk-based learning organization; and the need to share information across regulators.</p>
Use a risk-based approach to choose categories of health workers for oversight	Explore the experiences and perspectives of Ontario naturopaths, homeopaths and Chinese medicine practitioners as they passed through the transition to being regulated under the <i>Regulated Health</i>	<i>Publication date:</i> 2015 <i>Jurisdiction studied:</i> Ontario, Canada <i>Methods:</i> Cross-sectional survey	A total of 1,047 practitioners were identified and surveyed. Of these respondents, 273 naturopaths, 234 homeopaths, and 181 Chinese medicine practitioners were included, as they provided answers to the qualitative question about their opinions of the regulatory process,	In 2006 and 2007, the Ontario government announced that it would begin regulating naturopathy, homeopathy and traditional Chinese medicine/acupuncture practitioners under the <i>Regulated Health Professions Act, 1991</i> . To lay the framework for each profession's regulation, the Ontario government appointed a regulatory Transitional Council for each group. The members of Transitional Councils consisted of both practitioners from	<p>Overall, the practitioners had a pro-regulatory stance, with approximately three-quarters of all respondents showing significant support for regulation. Respondents believed that regulatory changes would enhance their occupations' credibility, increase availability of third-party insurance coverage for their services, and help protect the public from untrained practitioners.</p> <p>Despite this, quantitative findings across the naturopathic, homeopathic and Chinese medicine practitioner groups showed that many respondents (48%, 44% and 33% respectively) were worried about regulation. Overall, four themes emerged from the respondents' 'worries.' The first was that the new regulation might produce an unwanted financial and administrative burden on practitioners, such as</p>

Sub-element	Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
	<i>Professions Act, 1991 (6)</i>		which was the focus of the paper.	within the profession being regulated, as well as 'general' members who were not practitioners. Although each of the three occupational groups were previously at notably different stages of professionalization, resulting in different trajectories for each group's regulatory process, the Ontario government took the step of regulating each of these groups around the same time. At the time of the study, Chinese medicine practitioners fully implemented their regulations (in April of 2013), whereas naturopaths and homeopaths were expected to complete this process in 2015.	increased registration dues and paper work. The second worry was that it could detrimentally affect groups' practice scopes. Concerns regarding reduced scope predominated in naturopaths' survey responses, where concern around overlapping scopes repeatedly appeared in homeopaths' and Chinese medicine practitioners' responses. Thirdly, there were concerns that the new regulations might implement inappropriate or unfair registration standards. Homeopaths and Chinese medicine practitioners, groups that had no national education or regulatory standards at the time, were concerned about how regulations might assess practitioners' qualifications for professional entry and how such standards would be set, as there are many ways to practise that benefit the patient. Lastly, the fourth theme was that the new regulations might compromise occupational groups' paradigmatic foundations. For example, several homeopathic respondents expressed concern that with the new regulations, their profession may become less homeopathic and more medical.

Appendix 2a: Systematic reviews relevant to Element 2 – Use competencies as the focus of oversight

Sub-element	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on oversight models
Expand the use of competencies across all categories of health workers	Identifying tools to assess nursing competencies (8)	<p>The review included seven studies that indicated the availability of some tools that allow for the assessment of clinical competences in nursing education.</p> <p>The review found that each jurisdiction has custom measures and tools for nursing competencies based on their national guidelines.</p> <p>The review highlighted that despite the existence of reliable tools to measure the extent to which nurses have adopted competencies, there is a clear need to move forward and develop common nursing competencies across jurisdictions and to allow for comparisons across graduates in different jurisdictions.</p>	2013	4/9 (AMSTAR rating from the McMaster Health Forum's Impact Lab)	0/7	0/7	7/7

Appendix 2b: Primary studies relevant to Element 2 – Use competencies as the focus of oversight

Sub-element	Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
<p>Develop a process to get input from citizens, health workers and existing oversight bodies about how to define the core competencies for each category of health worker</p>	<p>Advocate for implementation of core competencies in pain assessment and management, and provide recommendations for how to incorporate the competencies into entry-level nursing curricula (12)</p>	<p><i>Publication date:</i> 2015 <i>Jurisdiction studied:</i> U.S. <i>Methods used:</i> Description of consensus-building process, informed by a literature review to develop core competencies for pain management</p>	<p>Assessment of 21 core pain assessment and management competencies</p>	<p>There were a total of 21 core pain assessment and management competencies that were grouped into four domains. These domains are: (a) Multidimensional nature of pain: What is pain?; (b) Pain assessment and measurement: How is pain recognized?; (c) Management of pain: How is pain relieved?; and (d) Context of pain: How does context influence pain management? The author suggested that when assessing competency, multiple measurement points of varying complexity should assess the student in varying environments and with diverse cases.</p>	<p>Several studies have identified deficits in nursing knowledge and skills related to pain management. This inadequate pain education is a barrier to providing high-quality pain care to the population.</p> <p>The authors offered several strategies for integrating the pain competencies into pre-licensure nursing education. These included: asking students to share their own experience about pain (for domain one); using pain assessment tools during clinical experiences and discussing the benefits and limitations of each tool for specific populations (for domain two); including pain-related content in pharmacology courses and specific discussions around non-opioids, opioids, and adjuvant analgesics (for domain three); and having students attend support group meetings for individuals with chronic pain disorders (for domain four).</p> <p>The authors also note challenges that exist that hinder the progress of the pain-education agenda. These challenges may arise from the lack of appreciation of the consequences of pain in addition to the seasoned health professional attitudes and behaviours regarding pain. Furthermore, there may also be resistance from educators about adding new content into existing and packed curricula.</p> <p>The authors recommend interactive, problem-based curricula centred on competencies to facilitate greater student learning. This requires learning and knowledge assessment to shift from traditional disease-related topics, such as anatomy and physiology, to performance and patient outcomes in real-world contexts. The author further explains that competencies need to evolve, and be dynamic and representative of the increasing complexity of pain and assessment for patients across the lifespan and in differing contexts. This requires supportive</p>

Sub-element	Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
					context, administrative support, and effective facilitation methods. Meeting the core competencies in pain management will improve pain care in the U.S. and help nurses be stronger partners in interprofessional teams committed to quality pain care.
Expand the use of competencies across all categories of health workers in education programs preparing candidates for entry to the profession	Implementation of competency-based education in plastic surgery (13)	<p><i>Publication date:</i> 2014</p> <p><i>Jurisdiction studied:</i> Canada</p> <p><i>Methods used:</i> Non-systematic review and development of a theoretical framework</p>	The study reviews the current state of literature on competency based education and documents the development of a competency-based curriculum in plastic surgery	No intervention was used to conduct this study.	<p>The study reviews the adoption of competency based education by the Royal College of Physicians and Surgeons of Canada, finding that competency-based medical education may accelerate training, allow progress that is based on individualized learning curves and improve standardization among residency programs.</p> <p>The study highlights five themes related to the resistance of implementing competency-based medical education, these are: lack of interest in change; concerns regarding evidence; administrative burden; financial concerns; and balancing service requirements with education. However, the study notes that changes to the current learning environment are making traditional instructional methods less effective and instead refers to literature that has found simulation laboratories to be successful for supplementing skills training.</p> <p>The study defines a nine step framework for the development of competencies which includes: establishing need to develop competencies; forming a committee; literature review; consultation with experts and educational specialists; draft competencies; consensus exercise; revise competencies; circulate competencies among stakeholders; and finalize and continually review competencies.</p>
	Explore staff and candidates' experiences of using values and competency-based interview selection methods for	<p><i>Publication date:</i> 2016</p> <p><i>Jurisdiction studied:</i> U.K.</p> <p><i>Methods used:</i> Mixed methods of focus</p>	Staff participants included eight human resource staff, one values and competency-based interview training provider, and 12 senior National Health	Values and competency-based interviews are used as a method to select nursing, midwifery and allied health professionals. This style of interview is a more rigorous and robust process in selecting candidates, and to	All participants viewed values and competency-based interviews as a positive change to the selection process. Participants felt that the values and competency-based interviews resulted in higher-quality candidates at the application stage, improved quality of interviews, empowered panel members, and was more accurate in identifying strong candidates. Despite this, participants saw some challenges, including difficulty in designing

Sub-element	Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
	nursing, midwifery and allied health professionals (11)	groups, interviews and questionnaires	Service (NHS) leaders who had either been an interview panel chair, or interview panel member, for nursing, midwifery and allied health professional (NMAHP) selections in the past year. Additionally, 12 candidates provided feedback.	succeed, candidates are required to provide examples of each competency from their past experiences as a part of their applications and interviews. It is thought that exploring past behaviour is more effective at predicting future behaviour compared prospective questioning.	<p>values and competency-based interview questions, difficulty conducting the interviews, amount of time required to prepare for and conduct interviews, non-attendance by candidates, and guiding candidates who struggled with the interview format. Additionally, limitations were also noted by participants, primarily candidates' lack of awareness and understanding of what was required to succeed in values and competency-based interviews.</p> <p>Overall, from the 12 candidates who interviewed, they all perceived their VCBI experience as positive and welcomed the new style of interview. Candidates who undertook a second values and competency-based interview had clear expectations of the process and found the overall process more comfortable.</p>
	Describe the process used by 10 Canadian jurisdictional regulatory bodies to determine standardized entry-level competencies for registered nurses (9)	<p><i>Publication date:</i> 2008</p> <p><i>Jurisdiction studied:</i> Canada</p> <p><i>Methods used:</i> Description of the process for developing and refining competencies for registered nurses</p>	Provincial nursing regulatory bodies within Canada	Project participants held monthly teleconferences, exchanged electronic communications, and formed sub-working groups to advance discussion. Two face-to-face meetings were held to write the competency statements themselves. RNs and regulatory body staff regularly contributed input in the form of surveys and focus groups.	<p>The result of the collaborative work among the 10 Canadian regulatory bodies was a comprehensive document of 119 competency statements organized in a standard-based framework of five categories: professional responsibility and accountability; knowledge-based practice; ethical practice; service to the public; and self-regulation.</p> <p>Project participants attributed their success to several factors. First, the clear yet broad mandate gave the participants the flexibility to decide on detailed goals, working processes and plans. Second, participants found that the work plan, which took the form of a visual chart with work components and targeted timelines, was extremely useful in keeping the project on track. Participants also emphasized the importance of enthusiasm and support from project contributors and leadership.</p> <p>At the time of the article's publication, these common competencies had not yet been implemented, with</p>

Sub-element	Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
					each jurisdiction reviewing the document to determine how best to use the generated competencies in their jurisdictions.
Expand the use of competencies across all categories of health workers in training programs preparing candidates for entry into a specialty	Implementing a competency-based program for medical residents in Canada (10)	<p><i>Publication date:</i> 2016</p> <p><i>Jurisdiction studied:</i> Alberta, Canada</p> <p><i>Methods used:</i> Between-group analysis of preceptors' evaluations of residents' skills/abilities</p>	The study involved residents in the Care of the Elderly Diploma Program of the Department of Family Medicine at the University of Alberta. Nine residents training from 2007-2009 were part of the pre-intervention period, while eight residents training from 2010-2013 were in the post-intervention period.	<p>The Care of the Elderly (COE) Diploma Program is a six-to-twelve-month program that provides supplementary training on geriatric care to family physicians. This program was originally based on learning objectives (LO), but was redesigned in 2010 to focus on 85 core competencies (CCs) over 12 domains instead.</p> <p>The intervention is defined as the implementation of the CC COE Diploma Program in 2010.</p>	<p>There was no difference in the overall residents' learning between the LO and CC programs. However, differences were seen when examining the CanMEDS roles individually. For the Family Medicine Expert role, the average evaluation score was higher for male residents in the LO program, and higher for female residents in the CC program. For the Communicator/Collaborator/Manager and Scholar roles, the average evaluation score was significantly higher for residents in the CC program than the LO program. For the Professional/Advocate role, there were no significant differences between the two programs. Evaluation scores in the LO program were far more variable than the scores in the CC program for the Family Medicine Expert and Communicator/Collaborator/Manager roles.</p> <p>For training experience, the admission process and evaluation process of the residents, and orientation to the program were rated significantly higher in the CC program than the LO program. Ratings for the other seven components did not vary significantly between the two programs.</p>

Appendix 3a: Systematic reviews relevant to Element 3 – Employ a performance measurement and management system for the health workforce and its oversight bodies

Sub-element	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on oversight models
Developing metrics that allow citizens and policymakers to judge and, when needed, demand improvements to the performance of the health workforce or its oversight bodies	Approaches to regulating healthcare complaints and disciplinary processes (16)	<p>The review included 118 studies that examined patterns of complaints to regulatory colleges.</p> <p>The review found that most complaints involved an adverse event, of which 93% were preventable. The review cited one study that found that one of every 200 people who had cause to complain actually registered a complaint with the Commissioner.</p> <p>The studies included in the review also provided insights into those who do and do not complain. Certain socio-demographic factors lead to a greater likelihood of complaining, with non-complaints being higher among those who are elderly, live with a disability, reside in a socio-economically deprived area, or live in a rural community.</p> <p>One study cited in the review found that people may not complain for three primary reasons: perceived futility of the complaints process; poor knowledge about how to complain; and feeling too weak to go through the process.</p> <p>Generally, there is evidence that complaint rates are low when compared to preventable adverse events and that those involved in the events are far more likely to complain informally rather than formally. Further, there are significant variations between the formal complaints process and outcomes depending on the jurisdictions and regulatory body.</p>	Not reported in detail	3/9 (AMSTAR rating from McMaster Health Forum)	Not reported in detail	Not reported in detail	118/118

Appendix 3b: Primary studies relevant to Element 3 – Employ a performance measurement and management system for the health workforce and its oversight bodies

Sub-element	Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
Developing metrics that allow citizens and policymakers to judge and, when needed, demand improvements to the performance of the health workforce or its oversight bodies	Mandatory reporting on the performance of health professionals (14)	<p><i>Publication date:</i> 2014</p> <p><i>Jurisdiction studied:</i> Australia</p> <p><i>Methods used:</i> Retrospective review of allegations of health professional misconduct</p>	A total of 819 mandatory notifications made of professional misconduct between January 2011 and December 2012	Multivariate analysis of allegations of misconduct involving health professionals	<p>The study found that of 819 mandatory notifications made, 501 related to a breach of accepted professional standards. These were largely deviations from set standards of clinical care.</p> <p>The study found that nurses and doctors were responsible for the majority of reports, both in the role of those notifying and those responding.</p> <p>Psychologists had the highest rate of notifications, followed by physicians, nurses and midwives.</p> <p>Notifications were made against male providers more frequently than female providers.</p>
	Primary care performance measurement framework for Ontario (17)	<p><i>Publication date:</i> 2017</p> <p><i>Jurisdiction studied:</i> Ontario</p> <p><i>Methods used:</i> Summit meeting of senior leaders from key primary care data collectors to discuss performance measurements informed by an environmental scan of primary care performance measurement in Ontario</p>	Environmental scan of 19 performance measurement frameworks, initiatives and data sources in Ontario	Facilitated discussion of findings from the environmental scan and performance measurement priorities in Ontario	<p>Following the summit of senior leaders in Ontario, specific measures for the measurement priorities were selected in eight domains of the primary care performance measurement framework: access; integration; efficiency; effectiveness; focus on population health; safety; patient centeredness; and appropriate resources.</p> <p>Within each of the eight domains, a series of specific measurements have been developed. These include measurements at both the system and practice level.</p> <p>The study notes a number of lessons learned in the process of developing these measurements. These include: the importance of stakeholder engagement; tapping into experience and expertise of patients and family caregivers; and consensus building is often time-consuming and resource-intensive.</p>



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>> Contact us

1280 Main St. West, MML-417
Hamilton, ON, Canada L8S 4L6
+1.905.525.9140 x 22121
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