Rapid Synthesis

Examining the Efficiency and Effectiveness of Ontario's Health Workforce Regulatory System

29 March 2019

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Rapid Synthesis:
Examining the Efficiency and Effectiveness of Ontario's Health Workforce Regulatory System
90-day response

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McMaster Health Forum

The McMaster Health Forum's goal is to generate action on the pressing health-system issues of our time, based on the best available research evidence and systematically elicited citizen values and stakeholder insights. We aim to strengthen health systems – locally, nationally, and internationally – and get the right programs, services and drugs to the people who need them.

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Timeline

Rapid syntheses can be requested in a three-, 10-, 30-, 60- or 90-business-day timeframe. This synthesis was prepared over a 90-business-day timeframe. An overview of what can be provided and what cannot be provided in each of the different timelines is provided on McMaster Health Forum's Rapid Response program webpage (www.mcmasterforum.org/find-evidence/rapid-response).

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Conflict of interest

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

Merit review

The rapid synthesis was reviewed by a small number of policymakers, stakeholders and researchers in order to ensure its scientific rigour and system relevance.

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KEY MESSAGES

Question

- How can the efficiency and effectiveness of the regulatory colleges in Ontario's health system be improved?

Why the issue is important

- Four reasons exist to explore the issue of improving regulatory college efficiency and effectiveness in Ontario, including; 1) the Regulated Health Professions Act has not been reviewed in a comprehensive way in order to ensure it has been updated alongside ongoing evolutions in the health system; 2) piecemeal amendments to the legislative framework have created a particularly complex landscape for the oversight of the health workforce in Ontario; 3) given changes in other jurisdictions, there is now a broad range of examples that could provide insights about alternative approaches for Ontario; and 4) there is increasing media attention and potential for the erosion of public trust in health-workforce oversight given recent concerns regarding the enforcement of professional standards in the province.

What we found

- We identified eight systematic reviews and five non-systematic reviews as well as 11 primary studies that related to some aspect of the question. However, there is a paucity of literature that addresses the regulation of health professionals and, in particular, efficiencies in regulation. While individual aspects of regulation such as optimal scopes of practice, professional skill-mix and task shifting, have significant bodies of evidence, relatively little evidence is available that compares different models of regulation. To complement this work with insights about jurisdictional approaches to health-workforce oversight, we undertook 10 key informant interviews. When comparing the models and approaches to workforce oversight currently in place in Ontario with those in other select jurisdictions (Australia, New Zealand, United Kingdom), three aspects stand out: 1) there have been no efforts in the province to consolidate oversight and regulatory functions through changes to the models prominently used; 2) Ontario is the only jurisdiction of the four that relies almost entirely on controlled acts (i.e., acts that may only be performed by authorized healthcare professionals as set out in legislation) and defined scopes of practice (i.e., the services that a particular profession is able to perform and legally authorized to perform based on controlled acts) as the primary approach to regulation within its self-governance model; and 3) there are fewer defined groupings of health professionals for the purpose of oversight and regulation compared with other jurisdictions.

- In considering ways forward, key informants drew on their own tacit knowledge and experiences to suggest six steps Ontario could take to move away from the status quo (some of which were supported by the results of preliminary evaluations conducted in Australia and the United Kingdom): 1) adjust existing legislation to simplify approvals for targeted changes to oversight and regulation functions (e.g., continuing competencies); 2) transition from a reliance on controlled acts and defined scopes of practice towards competency-based oversight; 3) identify opportunities for vertical integration of colleges and, where possible, horizontal integration of professional regulation within sectors (e.g., rehabilitation); 4) consolidate complaints management and disciplinary functions into a single body outside of the regulatory colleges; 5) consolidate back office administrative functions (e.g., co-location, web services, legal services); and 6) integrate employers and healthcare organizations into workforce oversight.

- In suggesting these changes, key informants noted that some of them may help to improve efficiency by establishing regulatory flexibility and thus reducing the need for arduous decision-making processes as the health system evolves (suggestions 1 and 2), taking advantage of economies of scale and more standardization for particular functions (suggestions 3, 4 and 5), and ensuring organizations are playing to their comparative strengths in workforce oversight (suggestion 4). Key informants also noted that certain changes could help improve equity, fairness and accountability.

QUESTION

- How can the efficiency and effectiveness of the regulatory colleges in Ontario's health system be improved?

WHY THE ISSUE IS IMPORTANT

The regulation and oversight of the health professionals responsible for providing care to patients in Ontario is an important mechanism to ensure patients receive the highest-quality care possible (e.g., by setting the standards that professionals need to meet in their practice) while mitigating, to the extent that is possible, the risks of harm that may be associated with the provision of healthcare services (e.g., by ensuring health professionals are fit to practice, and that those who are licensed to practice have the competencies to provide the services patients need safely). There are currently 26[1] regulatory colleges in Ontario that provide oversight for the 29[2] health professions that are regulated in the province, which collectively include over 300,000 healthcare professionals Additionally, there are several organizations providing oversight and guiding the practice of the many health workers who are not currently regulated, such as personal-support workers (PSWs) – 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, pedorthists, phlebotomists, and personal-service workers of many kinds (e.g., ear piercers, tattoo artists). To help ensure that the health workforce in Ontario is providing patients with the most appropriate, high-quality care when and where they need it, a wide range of legislative and regulatory tools have been established and used to guide the efforts of these oversight organizations. The most important of these tools is the *Regulated Health Professions Act, 1991 (RHPA*) which has enshrined the qualifications needed to call oneself a particular type of health professional, the settings where health professionals are able to practise, the services they are able to provide, and what happens if something goes wrong.

Box 1: Background to the rapid synthesis

This rapid synthesis mobilizes both global and local research evidence about a question submitted to the McMaster Health Forum's Rapid Response program. Whenever possible, the rapid synthesis 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 rapid synthesis does not contain recommendations, which would have required the authors to make judgments based on their personal values and preferences.

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This rapid synthesis was prepared over a 90-business-day timeframe and involved five steps:

1) submission of a question from a policymaker or stakeholder (in this case, Converge3);
2) identifying, selecting, appraising and synthesizing relevant research evidence about the question;
3) conducting key informant interviews;
4) drafting the rapid synthesis in such a way as to present concisely and in accessible language the research evidence; and
5) finalizing the rapid synthesis based on the input of at least two merit reviewers.

However, despite the central role that the *RHPA* continues to play in laying out the legal framework for health-workforce oversight in Ontario, it exists within a broader patchwork of regulatory rules that contribute

[1] Multiple health professionals that are regulated by a single college include: audiologists and speech-language pathologists; chiropodists and podiatrists; and pharmacists and pharmacy technicians.

[2] Audiology, chiropody, 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.

to governing the health workforce in complementary ways (e.g., the *Ambulance Act, 1990,* which dictates elements of how paramedics function, and both the *Health System Improvements Act, 2007* and the *Protecting Patients Act, 2017* which help to define what the professional regulatory colleges are held accountable for and the role of the Ministry of Health and Long-Term Care in overseeing the colleges, respectively). Given the importance of the health workforce in Ontario and the significant proportion of the provincial health budget allocated to them every year (in 2013 physicians alone represented 24% of total public dollars spent on health in the province),(1) policymakers and stakeholders may wish to consider how to create systems of health-workforce oversight that optimize both efficiency (i.e., ensuring money is spent wisely and in ways that maximize return on investment) and effectiveness (i.e., enhances accountability for professionals to provide high-quality services).

In February 2019, the Ontario government announced significant reforms to the organization of the health system, including the amalgamation of a number of the province's arm's-length organizations into one central agency called Ontario Health (which is also slated to take over the administrative and funding roles of the province's 14 Local Health Integration Networks), as well as the development of interprofessional, cross-sectoral Ontario Health Teams.(2) These changes are likely to have a significant impact on the ways in which services are delivered and how health professionals practise. Given these changes, it is an appropriate time to consider whether the existing system for workforce oversight and regulation remains fit for purpose, or whether changes could be made to improve its efficiency and effectiveness in anticipation of the forthcoming shifts in Ontario's health-system landscape. For example, the idea that the current system of oversight and regulation is *not* fit for purpose was raised by a number of participants in a stakeholder dialogue convened in 2017 by the McMaster Health Forum at the request of the Ministry of Health and Long-Term Care on modernizing the oversight of the health workforce in Ontario.(3)

Based on the insights to emerge from the work led by the McMaster Health Forum, there are at least four reasons why it is likely that some health-system leaders believe there is room to consider which changes should be made to the existing system of oversight and regulation in order to ensure it is fit for purpose in Ontario's changing health system, with a particular emphasis on improving its efficiency and effectiveness. First, despite a number of amendments over the past 25 years, the *RHPA, 1991* has not been reviewed in a comprehensive way in order to ensure it has evolved alongside ongoing evolutions in the health system, which include: changing public expectations; growing concern among citizens about the system's ability to deliver high-quality, patient-centred care; and changing care-delivery models, such as interprofessional team-based care, and other reforms that have been, or are in the process of being, introduced.

Second, the reliance on piecemeal amendments to the legislative framework have created a particularly complex landscape for the oversight of the health workforce in Ontario. The many pieces of legislation and bodies involved in the oversight of health workers makes determining lines of accountability difficult. As mentioned above, in addition to the 29 regulated health professions, there are many categories of health workers that are not currently included in the *RHPA, 1991* some of whom are increasingly being relied upon for the delivery of important services, such as PSWs, as the population ages and care moves into patients' homes. Adding to this complexity, workers in the social-services field who often work closely with those in the health system are not covered by the same oversight mechanisms as health workers (unlike in the United Kingdom, where health and social care are often handled together). However, it should be noted that Ontario has recently moved forward with initiatives that aim to address some of these challenges, such as creating a provincial PSW registry, which will verify the credentials and addiction certification of PSWs, provide a registration process for qualified applicants, and develop a code of ethics for the workers and a transparent interim complaints process.(4) All of these initiatives can be seen as initial steps towards voluntary regulation.

Third, given other jurisdictions have introduced many innovations in the oversight of health workers, there is now a broader array of options that can be used as points of comparison with Ontario's current oversight mechanisms, and importantly, as a way to generate new ideas about how to create a potentially more efficient and effective system. These options include changing the regulatory models used (e.g., agency 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), approaches to oversight, including integrating risk-of-harm approaches, focusing on competencies, controlled acts and/or scopes of practice (which is the major approach currently used in the province), and performance measurement and management.

Fourth, the issue is one that is increasingly top of mind, given media attention surrounding the conviction of Elizabeth Wettlaufer and the Long-Term Care Homes Public Inquiry, as well as a number of out-of-province incidents which have added to questions about accountability in the province, contributing to a certain degree of erosion in public trust in the current system of health-workforce oversight.

Taken together in the context of the government's clear impetus to pursue other large system-wide reforms, these four reasons provide a rationale to begin examining whether specific transformations could be pursued to strengthen the effectiveness and efficiency of the regulatory framework in Ontario. To begin answering this question, this rapid synthesis aimed to:

1) examine findings from the literature (both systematic reviews and primary studies) about the new potential approaches to workforce oversight that would represent a departure from the status quo in Ontario;
2) complement the insights from the literature with a jurisdictional scan (review of key governmental and organizational websites and grey literature) focused on health systems that have pursued reforms in health-workforce oversight that, if adopted in Ontario, would represent a departure from the status quo, including standard comparator jurisdictions of Australia, New Zealand and the United Kingdom; and
3) integrate the tacit knowledge of 10 key informants from a range of jurisdictions (i.e., other Canadian provinces, Australia, New Zealand, and United Kingdom)[3] about the different models of regulation in place and recent reforms that have been pursued to further the aim of ensuring an effective and efficient health-workforce regulatory system.

The findings to emerge from this process are presented below, following a brief overview of some of the key frameworks that are useful in characterizing systems for health-workforce oversight, which is covered in the next section as an orienting device for the remainder of the report.

CHARACTERISTICS OF HEALTH-WORKFORCE OVERSIGHT

As mentioned above, jurisdictions around the world have pursued a range of different options for regulating their health professionals and many of these, if pursued in Ontario, would represent significant departures from the status quo. The options available to any one jurisdiction considering such reforms stem from answering three overarching questions: 1) what model of regulation is in place and what other models are available (e.g., agency regulation; compliance-based regulation; co-regulation; direct government regulation; voluntary regulation; and self-regulation); 2) what approaches to oversight have been adopted within the chosen model of regulation and what other approaches are available (e.g., risk-of-harm; competencies; controlled acts and or scopes of practice; and performance measurement and management); and 3) what changes to other characteristics of workforce oversight need to be pursued to complement changes to the models or approaches (e.g., number of health professionals regulated; number of oversight bodies; approach to grouping professionals within oversight bodies; core functions of oversight bodies; additional stakeholders engaged in workforce oversight and their role; and key groups of health workers not currently regulated)? To ensure a common understanding of models and approaches to regulation, this framework is summarized in Table 1 below, and used throughout the rapid synthesis both to examine the regulatory systems in comparator jurisdictions (e.g., Australia, New Zealand, and United Kingdom) (Table 3) and to present the

[3] We did not look to other Canadian provinces and territories for the jursidictional scan given the similarlity in modes of regulation and time available to complete the project, however we did speak to a range of policymakers and researchers from across the country to learn from their experience in pursuing changes to the regulatory model to enhace efficiency or accountability.

findings from the jurisdictional scan and key informant interviews in order to determine where reforms have been explored in other jurisdictions to improve the efficiency or effectiveness (Table 4).

Table 1. Description of models of regulation and primary approaches to oversight

Characteristics	Options	Description
Model of regulation	Agency regulation	Public authority or government agency is responsible for exercising authority over health professionals (e.g., National Health Service)
	Compliance-based regulation	Uses a broad set of rules or regulations set out by a public authority and then leaves it to regulated parties (e.g., each category of professional) to decide how to most appropriately implement each of the rules or regulations
	Co-regulation	Two parties (usually government and a professional association) enter into an arrangement to regulate entry to a given profession and their professional practice
	Direct government regulation	Government acts as the regulator for a given profession or professional practice
	Voluntary regulation	Categories of professionals voluntarily adhere to regulatory practices such as creating a registry, but there is no legal power to protect professional titles of those who are voluntarily regulated, such as those categories of professionals participating voluntarily in the professional standards authority regulatory framework in the United Kingdom
	Self-regulation	Professionals involved in determining the rules that govern their profession (e.g., are involved as council members) and are accountable for their own behaviour with regulatory bodies providing assistance and oversight, such as in the case of Ontario
Primary approach(es) to oversight adopted within regulatory model	Risk-of-harm	Approach to regulation and oversight which prioritizes categories of professionals based on the risk that they and the services they provide pose to patients
	Competencies	Approach to regulation and oversight whereby professional's remits are determined by their ability to demonstrate that they have the necessary credentials and developed an appropriate level of competency to provide a given service rather than a set scope of practice (e.g., focuses on protecting a professional's title rather than the services they provide)
	Controlled acts and/or scopes of practice	Defines (typically in legislation) the activities that a given category of professional is permitted to perform, including some activities that are restricted based on their ability to cause harm to a patient if performed by an unqualified person
	Performance measurement and management	A feature that works in parallel to approaches to oversight that sets specific process and outcome measures which allow for those involved in regulation to judge whether or not the needs of the public and of the health system are being met

WHAT WE FOUND

As outlined above, we conducted a literature review (prioritizing systematic reviews and then looking for relevant primary studies) and complimented these results with a jurisdictional scan and key informant interviews to elicit the tacit knowledge of key informants about what types of changes could be pursued in Ontario. In the sections that follow we first summarize the results from our review of the best available research evidence (Table 2) then present details to emerge from the jurisdictional scan and key informant interviews about the health-workforce oversight approaches adopted in the comparator jurisdictions chosen by the requestor (Tables 3 and 4). Finally, given there were a number of ideas to emerge during key informant interviews about potential reforms that could lead to efficiencies in Ontario, we also summarize these in the last section (Table 5).

Key findings from the evidence

We identified eight systematic reviews and five non-systematic reviews as well as 11 primary studies that related to some aspect of the question. For each systematic review we included in the synthesis, we assessed how recently the literature was searched as well as the methodological quality using the AMSTAR quality appraisal tool.

Overall, there is a paucity of literature that addresses regulation of health professionals and, in particular, efficiencies in regulation. While individual aspects of regulation such as optimal scopes of practice, professional skill-mix and task shifting have significant bodies of evidence, relatively little evidence is available that compares different models of regulation.

Models of regulation

With regards to the models of regulation used, we identified one non-systematic review and one primary study. The non-systematic review examined models of regulation; the review identified the trend that jurisdictions are increasingly creating national registration and accreditation bodies to supplement professional self-regulation.(5) The non-systematic review did not discuss the reasons (e.g., effectiveness, accountability or efficiency) behind this shift.(5) The primary study, which included interviews with a range of regulators in Ontario, reported tensions among self-regulatory colleges and managing the competing interests of the colleges, their members and the government.(6)

Box 2: Identification, selection and synthesis of research evidence

We identified research evidence (systematic reviews and primary studies) by searching (in February 2019) Health Systems Evidence (www.healthsystemsevidence.org) using the following three search strategies: 1) (regulation OR oversight) using the following filters: governance arranagents - professional authority (all); document type - overviews of systematic reviews, systematic reviews of effects, systematic reviews addressing other questions, and economic evaluations and costing studies; 2) (health workforce OR health human resources) AND (regulation OR oversight) using the following filters: document type - overviews of systematic reviews, systematic reviews of effects, systematic reviews addressing other questions, and economic evaluations and costing studies; and 3) (health workforce OR health human resources) AND (performance measurement and management) using the following filters: document type - overviews of systematic reviews, systematic reviews of effects, systematic reviews addressing other questions, and economic evaluations and costing studies; and PubMed using the following two search strategies: 1) (workforce OR "health human resources" OR "health workers") AND (regulation OR oversight) AND (efficien*); and 2) (workforce OR "health human resources" OR "health workers" OR "health professionals") AND (regulation OR registration OR oversight) AND (efficien*).

The results from the searches were assessed by one reviewer for inclusion. A document was included if it fit within the scope of the question posed for the rapid synthesis.

For each systematic review we included in the synthesis, we documented the focus of the review, key findings, last year the literature was searched (as an indicator of how recently it was conducted), methodological quality using the AMSTAR quality appraisal tool (see the Appendix for more detail), and the proportion of the included studies that were conducted in Canada. For primary research (if included), we documented the focus of the study, methods used, a description of the sample, the jurisdiction(s) studied, key features of the intervention, and key findings. We then used this extracted information to develop a synthesis of the key findings from the included reviews and primary studies.

Primary approach(es) to oversight adopted within regulatory model

While we found literature on each of the four approaches to oversight (e.g., risk-of-harm; competencies; controlled acts and/or scopes of practice; and performance measurement and management), none of the literature compared the models, and only one non-systematic review on risk-based regulation discussed efficiency, suggesting that risk-stratifying may be an efficient way to distribute regulatory resources. One recent low-quality review assessed the use of clinical competencies among nurses, but only for assessing clinical education, and found greater standardization was needed across professional nursing bodies.

Three medium-quality reviews (two recent and one older), two non-systematic reviews and three primary studies all explored expanding scopes of practice, with much of the literature focused on nursing.(7-15) However, only one recent medium-quality review reported on the outcomes of expanded scope of practice and found that expanded scopes of practice was positively associated with the per capita number of nurse practitioners and a more equitable distribution of nurses in underserved areas.(9) The review found no association between increased scope of practice and access to care, as well as finding mixed effects on costs.(9) The other reviews focused on factors that affect changes to professional skill-mix and facilitators of expanded scopes of practice, including: existing contextual determinants (e.g., funding, remuneration, scope of practice, education and training); organizational and regulatory arrangements (e.g., adaptability of regulatory bodies); and collective financing and incentive structures.(10) Two of the primary studies found scopes of practice to be restrictive, including one which identified protection of scope of practice between professions to limit interprofessional collaboration,(13; 14) while another found a need to introduce greater flexibility into scopes of practice by aligning scopes of practice with professional competencies and introducing regulatory flexibility that can accommodate health-system change.(15) The last primary study identified the desire to create further specialization and protection of function among podiatrists in Australia.(12)

Two older medium-quality reviews and one older low-quality review examined the use of performance management and measurement frameworks.(16-18) One review found that balanced scorecards were the most frequently used performance-measurement framework, while the two other reviews examined implementation considerations including: engagement of providers in choosing measures; understanding of organizational context; integration of the framework with existing performance metrics; and agreement from leadership about how information will be used.(16-18)

Changes to other characteristics of workforce oversight

Finally, with regards to other characteristics of workforce oversight, one non-systematic review examined continual physician learning and assessment across the European Union and found a number of potential approaches to enhance learning among physicians, which included models that reward continuing education and assessment models that focus on performance tools.(19) The review also highlights that professionally led regulatory bodies have increasingly collaborated with statutory bodies to implement these types of initiatives and build on self-regulation.(19)

Three primary studies examined the assessment for overseas-trained health providers finding a range of different assessments in place.(20) However, one of the studies reported on changes made to the assessment procedures in Alberta in efforts to optimize efficiency and effectiveness. These changes include: the development of guidelines for initial assessment; instituting an option for some applications to proceed directly to bridging education without completing a competency assessment; a shift in the management of bridging education; reviewing the time limits of the process; and reviewing communication tools to improve clarity and transparency with applicants.(21)

One primary study examining complaints about health professionals filed in New South Wales and Queensland in Australia found that certain groups, including older people, people from socio-economically

deprived areas, and ethnic minorities, underused the complaints systems of regulatory colleges due to feelings of disempowerment. Another primary study examined the role of regulatory bodies in managing professional issues of quality and patient safety by running 12 vignettes on concerning physician standards, and found that regulators recognized that action was required for most of the scenarios.(22) The highest consistency in the answers was found when the scenarios involved patients at risk, included issues considered as 'serious', or involved criminal activity in the clinical setting. However, when there was fault for poor communication and performance, the regulator would commonly hold the employer to be responsible.(22)

Though unrelated to the specific characteristics of workforce oversight presented in Table 2, one older low-quality review found four dimensions that influenced policy formulation for the health workforce: 1) performance (e.g., efficiency and effectiveness of health human resource policies and plans, demonstrable political will and commitments); 2) equity (e.g., equity and equality in health human resource policy formulation between categories of health professionals, implementation or inclusiveness of policy, addressing community needs as well as health worker's needs); 3) partnerships and participation (e.g., ability to work across stakeholders in developing policy; partner negotiation regarding health human resource policies); and 4) oversight (e.g., accountability and rule of law).(23) The review noted that more information is required to determine how the different dimensions influence policy development and implementation.(23) However, these different dimensions, and their impact on facilitating or hindering policy changes, should be kept in mind when thinking through any of the policy options to gain efficiency presented in this rapid synthesis.

Table 2. Summary of key findings from systematic reviews and primary studies

Characteristics of workforce oversight	Key findings from systematic reviews and primary studies
Model(s) of regulation prominently used • Agency regulation • Complementary regulation • Compliance-based regulation • Co-regulation • Direct government regulation • Voluntary regulation • Self-regulation	• One non-systematic review examining regulation of health workers found that jurisdictions are increasingly involving national registration and accreditation in efforts to connect the health sector through one regulatory network, as a supplement to internal self-regulation.(5) • One primary study found that a significant course of tension among self-regulated professional bodies was the competing needs of regulators to protect the public while meeting the demands of the government and their own members.(6)
Primary approach(es) to oversight adopted within regulatory model • Risk-of-harm • Competencies • Controlled acts and/or scopes of practice • Performance measurement and management	• One non-systematic review of risk-based regulation found three requirements to implementing a risk-based system: 1) the need to establish an inherent risk for the professional being regulated; 2) need to define a risk threshold (e.g., how much risk is tolerable); and 3) undertake a quantitative and qualitative assessment of risk to understand how to best manage the acceptable risk. o The review pointed to many different models being in place, but found two common characteristics: 1) assumptions about regulation and risk-assessment; and 2) the three key elements of information gathering, standard setting and behaviour modification. o The same review also suggested benefits from a risk-based regulation including improved efficiency through risk-stratified resources. However, the review noted that collecting data on health professionals and calculating levels of risk was a challenge.(24) • One recent low-quality review assessed the use of clinical competencies in nursing education and found common competencies include: communication, leadership, caring, capability, professional growth, and perceived competency.

	○ However, the review found that competencies remained relatively abstract concepts that had significantly different definitions across nursing colleges, and as a result raised some challenges of validity reliability and subjectivity in their assessment. ○ Strategies to overcome these challenges include preparation of supervisors and students with information about the competencies and clear methods and tools for assessment.(25) • A non-systematic review of the literature on achieving optimal skill-mix, found that, to date, it has been explored either by changing existing professional roles, with expansion of the nursing role being the most significant example, or developing new roles entirely, the latter of which has been hindered by challenges modifying (or putting in place) legislation, scope of practice and certification. ○ The review identified a number of factors found to affect the ability to implement changes to professional skill-mix, including: existing contextual determinants (e.g., funding, remuneration, scope of practice, education and training); organizational and regulatory arrangements (e.g., adaptability of regulatory bodies); and collective financing and incentive structures.(7) • One older medium-quality review found that changes in workload and division of tasks was found to increase efficiencies in the workforce in low- and middle-income countries, in particular involving nurse facilitators and community health workers for select tasks. ○ The same review found that task-shifting by substituting nurses for physicians yielded improved patient outcomes.(8) • One recent medium-quality review found that expanding scope of practice for nurses was positively associated with the per capita number of working nurse practitioners in the state. ○ Similarly, the review found that states which granted a full scope of practice resulted in a more equitable distribution of workers across regions, including in rural and underserved areas. ○ A greater number of nurse practitioners working combined with prescription authority for select medications increased overall number of office-based visits, however there was no association between increased scope of practice of nurse practitioners and access to care by the public. ○ However, the review found mixed effects regarding the impact of expanding scope of practice on healthcare costs.(9) • Another recent medium-quality review found three facilitators of expanded scope of practice for nurses: 1) providing clear job descriptions with detailed lines of accountability; 2) guided role development that is supported by an accreditation framework and credentialing; and 3) alignment of professional reimbursement models with new roles and responsibilities.(10) • Similarly, a non-systematic review found that the expansion of colorectal screening using flexible sigmoidoscopy from physicians to nurses in Ontario was facilitated by protecting liability for both physicians and nurses, as well as creating a training program for those nurses wanting to expand their scope and a per diem reimbursement.(11) • These findings resonated in a single study examining podiatry in Australia whereby many professionals signaled a desire for additional podiatry specialization and protection of functions.(12) • Two primary studies examining interprofessional collaboration in Ontario found that possible impediments include scope-of-practice protection, conflicting legislation, and a lack of knowledge of the roles and skills of other health professionals. ○ Despite these barriers, one of the studies noted significant efforts in the system to allow for interprofessional care including collaborative efforts of the College of Physicians and Surgeons of Ontario and Royal College of Dental Surgeons of Ontario on the out-of-hospital premises inspection program.(13; 14) • Another primary study conducted in the U.S. suggests the need to introduce greater flexibility into professional scopes of practice, including: aligning standard scope of practice with established professional competencies; regulatory flexibility that can

	accommodate health-system change; recognition of the value of overlapping competencies; increased public engagement; and use of best available evidence.(15) • One older medium-quality review examining barriers and facilitators for implementing performance measurements found greater familiarity and value of the measures was associated with increased uptake in practice. o In particular, performance-measurement frameworks were more likely to be accepted by providers when they had input in choosing the measures and when these were seen to help improve patient outcomes.(16) • One older medium-quality review examining performance-measurement frameworks in health, education and social services found the balanced scorecard was the most frequently used tool and often contained the following concept groupings: collaboration; learning and innovation; management perspective; service provision; and effectiveness of outcomes.(17) • One older low-quality review on the dissemination of performance information concluded that dissemination alone is not sufficient to result in changes, that there must be sufficient resources in place to allow the workforce to meet the objective set out in the performance measurement system, and that clinicians are in the best position to benefit from performance information. o The review also identified that for performance-measurement frameworks to be successfully implemented, organizations should have an understanding of organizational context, integration of performance-management framework with existing mechanisms (e.g., alignment with existing ways that professions already access and receive performance information), and agreement from leadership about how the information gained will be used.(18)
Changes to other characteristics of workforce oversight • Number of health professions regulated • Number of oversight bodies involved • Approach to grouping professionals within oversight bodies • Core functions of oversight bodies • Additional stakeholders engaged in workforce oversight and their role • Key groups of health workers not currently regulated	• One non-systematic review examined continual physician learning and assessment across the European Union and found a number of potential approaches to enhance learning among physicians, which included models that reward continuing education and assessment models that focus on performance tools. o The review also highlights that professionally-led regulatory bodies have increasingly collaborated with statutory bodies to implement these types of initiatives and build on self-regulation.(19) • One primary study examined the process of regulating nurses in Australia and found that the processes to regulate these professions included: the development of a consistent endorsement process that ensures nurses of the highest quality; the development of competency standards that are supported by a decision-making framework and include a period of candidacy or internship for the professional; and the process must establish a high level of rigour that supports and enforces the autonomous role of nurses.(26) • One primary study examined the assessments for overseas-trained health providers in different professions across Australia and found a range of different assessments in use including desktop assessments, short answers to assess clinical competencies and clinical skills examinations, among others. o Most professional bodies mitigated risk by ensuring the validity of evidence for the individual's competencies, vigilance where harm to patients could be caused, and requiring a demonstration of clinical skills. o While the cost would vary each year based in part on global political and economic contexts, regulatory colleges reported that undertaking oversees assessments represented a significant portion of the annual budget and as a result could be a potential target for efficiencies.(20) • A second primary study examining assessments for overseas-trained health providers in New Zealand found the use of workplace-based assessments were more effective than traditional psychometric approaches. o Further, the assessments were coupled with 12-18 months of supervised training and direct feedback following the assessments.(27) • A study examining changes to the assessment and accreditation of internationally educated nurses in Alberta made the following changes to optimize efficiency and

	effectiveness: the development of guidelines for initial assessment; option for some application to proceed directly to bridging education without completing a competency assessment; a shift in the management of bridging education; revisions to time limits of the process; and revisions of communication tools to improve clarity and transparency with applicants.(21) • A primary study examining complaints about health professionals filed in New South Wales and Queensland found that certain groups, including older people, people from socio-economically deprived areas, and ethnic minority groups, underuse the complaint system due to feelings of disempowerment. • One primary study examined the role of regulatory bodies in managing professional issues of quality and patient safety by running 12 vignettes on concerning physician standards and found that regulators recognized that action was required for most of the scenarios. The highest consistency in the answers resulted when the scenarios involved patients at risk, included issues considered as 'serious', or involved criminal activity in the clinical setting, however when there was fault for poor communication and performance, the regulator would commonly hold the employer to be responsible.(22)

Key findings from jurisdictional scan and key informant interviews about models and approaches to health-workforce oversight

Tables 3 and 4 provide a detailed summary of the key findings to emerge from the jurisdictional scan and key informant interviews about: 1) the established models and approaches for health-workforce oversight used in Ontario compared to those used in other jurisdictions (Table 3); and 2) whether reforms have been pursued in recent years with the explicit aim of improving either the efficiency or the effectiveness of the health-workforce oversight system (Table 4). The scan and interviews also identified related initiatives in two jurisdictions – Australia and the United Kingdom – in which preliminary evaluations were conducted to determine the effectiveness and efficiency of the oversight models in place there. We also highlight some of the key findings from these evaluations below.

While the overarching goal of presenting the results in Table 3 isn't to develop conclusions about which models and approaches are 'best' by comparing the nuances across jurisdictions, they are helpful as a jumping-off point for developing some observations about Ontario's current approach to health-workforce oversight in light of what is happening elsewhere. In particular, three aspects of the Ontarian context stand out:

1) there have been no efforts in the province to consolidate oversight and regulatory functions through changes to the models prominently used, which differs from the comparator jurisdictions (e.g., Australia has a single agency to oversee the registration of regulated health professionals, New Zealand has centralized its disciplinary functions and the United Kingdom has consolidated professional councils, and created a centralized agency to oversee those councils and the process of voluntary regulation);
2) it is the only jurisdiction that relies almost entirely on controlled acts and defined scopes of practice as the primary approach to regulation within its self-governance model, whereas the comparator jurisdictions place emphasis on competencies and risk-of-harm (although initiatives such as CanMeds are moving towards a competency-focused approach); and
3) there are fewer defined groupings of health professionals for the purpose of oversight and regulation compared with other jurisdictions, and it is not clear that grouping has been explicitly considered as a way to adjust how oversight and regulation is approached.

When considering recent reforms pursued in the jurisdictions that were reviewed (Table 4), at least three important observations can be made:

1) there have been few major 'overhauls' of how health-workforce oversight is pursued in any one jurisdiction, and change tends to occur in incremental ways that build on and adjust the current system;
2) while efficiency is clearly a concern among decision-makers in many jurisdictions (and in particular in Australia and the United Kingdom, where evaluations were pursued to determine efficiency of oversight),

there appear to be very few instances of reforms being pursued with an explicit goal of improving efficiency, but some examples that were identified include adjustments to scope of practice that enable downloading tasks to lower-trained cadres of workers (Ontario) and the consolidation of certain functions such as registration, complaints management and discipline (Australia and New Zealand); and

3) Ontario's recent changes to workforce oversight appear to have been primarily focused on improving accountability.

An additional observation that was raised by a number of key informants was that, while not 'baked in' to the plan, efforts to move to a regulatory approach based on competencies (rather than role or title protection and scopes of practice) may also have implicit efficiency benefits. Specifically, given competency-focused regulation creates less rigidity in terms of which health workers can perform certain tasks, it enables a flexible regulatory environment that doesn't require constant legislative changes as health systems and approaches to care evolve.

Table 3: Overview of health-workforce oversight in Ontario and select jurisdictions

Characteristics of workforce oversight	Jurisdiction			
	Ontario	**Australia**	**New Zealand**	**United Kingdom**
• Model(s) of regulation prominently used • Agency regulation • Compliance-based regulation • Co-regulation • Direct government regulation • Voluntary regulation • Self-regulation	• Self-regulation for regulated health providers • Direct government regulation for providers not regulated under the RHPA, 1991	• Self-regulation for professions included in the National Registration and Accreditation Scheme, regulated by the Australian Health Practitioner Regulation Agency • For non-registered healthcare workers, National Code of Conduct sets minimum standards • For unregulated health-practitioner disciplines, professional associations provide guidance on standards	• Self-regulation for regulated health providers with centralization of disciplinary functions through the New Zealand Health Practitioners Disciplinary Tribunal	• Co-regulation (referred to as 'shared regulation) with the nine professional councils (grouped based on functional areas or in the case of physicians the profession) establishing boards that have a balanced number of appointed professional and public members, with a clear focus on serving the public rather than the interests of professionals • Voluntary regulation through a tiered system for a range of health workers not overseen by the 10 professional councils (e.g., fitness instructors) • Oversight of the professional councils responsible for regulation by an independent agency (Professional Standards Authority)
Primary approach(es) to oversight adopted within regulatory model • Risk-of-harm • Competencies • Controlled acts and/or scopes of practice • Performance measurement and management	• Controlled acts and/or scopes of practice	• Competencies (in oversight of educational programs, training programs, continuing professional development programs, and professional regulatory colleges) • Risk-of-harm for Aboriginal and Torres Strait Islander health (one national board of health)	• Competencies (in oversight of educational programs, training programs, continuing professional development programs, and professional regulatory colleges)	• Competencies (in oversight of educational programs, training programs, continuing professional development programs, and professional regulators) • Risk-of-harm
Number of categories of health	29	16	16	27

professions regulated				
Number of oversight bodies involved	26	15	16	9 (plus an agency that oversees each professional regulator)
Approach to grouping professionals within oversight bodies	• Ad hoc groupings for select professionals: o Nurses (registered nurses, nurse practitioners and registered practical nurses) o Pharmacists and pharmacy technicians o Audiologists and speech-language pathologists	• National boards of health: o Aboriginal health professionals o traditional Chinese medicine o chiropractors o dental professionals o physicians o medical radiation professionals o nurses and midwives o occupational therapists o optometry o osteopaths o paramedicine o pharmacists o physiotherapists o podiatrists o psychologists	• Professional boards and councils: o chiropractors o dental professionals o dietitians o physicians o laboratory scientists and operating technicians o radiation technologists o midwives o nurses o occupational therapists o optometry professionals o osteopaths o pharmacists o physiotherapists o podiatrists o psychologists o psychotherapists	• Professional councils with both single-profession (e.g., chiropractors and physicians) and multi-profession groupings organized by similar service areas (e.g., dentistry or optometry) or functional similarities (e.g., nurses and midwives): o chiropractors o dental professionals o physicians o optometry professionals o osteopaths o nurses and midwives o pharmacists • One professional council that regulates a diverse group of health professionals o arts therapists o biomedical scientists o chiropodists/podiatrists o clinical scientists o dietitians o hearing-aid dispensers o occupational therapists o operating-department practitioners o orthoptists o paramedics o physiotherapists o practitioner psychologists o prosthetists and orthotists o radiographers o social workers in England o speech and language therapists • One professional council with a targeted geographical focus for a specific profession (pharmacists in Northern Ireland)

Core functions of oversight bodies	• Regulate the practice of the profession and to govern the members in accordance with the RHPA, 1991 • Establish and maintain standards of qualification for persons to be issued certifications of registration • Establish and maintain programs and standards of practice to assure the quality of the practice of the profession • Develop, establish and maintain standards of knowledge and skills and programs to promote continuing evaluation, competence and improvement among members • Develop, establish and maintain standards of professional ethics for the members • Develop, establish and maintain programs to assist individuals to exercise their rights under the RHPA, 1991 • Promote and enhance relations between the College and its members, other health profession colleges, key stakeholders and the public • Promote interprofessional collaboration with other profession colleges • Develop, establish and maintain standards and programs to promote the ability of members to respond to changes in practice environments, advances in technology and other emerging issues • Maintain a website that includes information about prescribed regulation	• Regulate the practice of the profession and to govern the members in accordance with the National Registration and Accreditation Scheme • Protect the public by ensuring the registration of suitably trained and qualified practitioners • Register practitioners and students • Develop standards, codes and guidelines for the profession • Approve accreditation standards and accredited courses of study for professionals and students • Receive and handle notifications, complaints and disciplinary processes • Assess overseas practitioners who wish to practise in Australia • The National Code of Conduct for Health Care Workers sets the standards for unregistered healthcare workers	• Regulate the practice of the profession and to govern members in accordance with the *Health Practitioners Competence Assurance Act, 2003* • Set standards for competence and monitor function of health practitioners • Establish qualifications and scopes of practice for professions • Monitor educational institutions and educational programs • Authorize registration of health practitioners under the Health Practitioners Competence Assurance Act, 2003 • Review applications for annual practising certificates • Support health practitioner competence with the support of recognized programs • Liaise with other authorities appointed under the Act • Promote education and training • Promote public awareness • The Kaiāwhina Workforce Action Plan provides the professional standards for the non-regulated workforce	• Core functions of regulators (i.e., the councils) involved in the oversight of their professional members in accordance with the Standards of the Professional Standards Authority are: o maintain a register of practising professionals o set standards (including maintaining them, ensuring they're up to date, and providing guidance for their application in practices) o monitor educational providers and programs to ensure quality o ensure that registrants are fit to practice through fair investigation of allegations that they may not be, and appropriate action (e.g., necessary disciplinary processes) • Other overarching statutory functions and processes that are collectively achieved by regulators and the Professional Standards Authority include: o protect patients and reduce harms o maintain public confidence in professions o establish accountability by providing reports on performance and address concerns o make available accurate and accessible information about regulations, processes and decisions o consult and work with relevant stakeholders to identify and manage risks

	• Maintain a council that is open to the public to act as the board of directors and manage and administer its affairs			
Additional stakeholders engaged in workforce oversight and their role	• Health Professions Regulatory Advisory Council • Fairness commissioner • Health Professional's Appeal and Review Board • Ministry of Advanced Education and Skills Development • Ministry of Health and Long-Term Care • Patient Ombudsman	• Health Ombudsman • Productivity Commission • Australia Rural Health Workforce	• Health Workforce New Zealand (provides advice and investment in workforce development and regulation)	• Department of Health and Social Care England (as well as the health and care departments of the devolved administrations in Northern Ireland, Scotland and Wales) • NHS professionals • Health Education England
Key groups of health workers not currently regulated	• Examples include: o Assistants of many types, such as: ▪ anesthesia ▪ dental ▪ medical laboratory ▪ physiotherapy o athletic therapists o clinical specialist radiation therapists o community health and development workers o community-support workers o family home visitors o hearing-instrument practitioners o herbalists o lactation consultants o marriage and family therapists o medical geneticists o osteopaths o paramedics o pedorthists o peer-support workers o personal-service workers (e.g., ear piercers, tattoo artists) o personal-support workers o phlebotomists o Reiki practitioners	• Examples include: o acupuncturists o chiropractors o herbalists o homeopaths o kinesiologists o massage therapists o naturopaths o nutritional therapists o osteopaths o physical therapists o reflexologists	• Examples of those seeking to be regulated under the act: o clinical physiologists o practitioners of traditional Chinese medicine o paramedics o perfusionists o Western medical herbalists	• Those participating voluntarily with the Professional Standards Authority's accredited registers program include: o acupuncturists o adolescent psychotherapists o Alexander-technique practitioners o Bowen therapists o child psychotherapists o Christian counsellors o Christian psychotherapists o clinical technologists o craniosacral therapists o foot-health practitioners o genetic counsellors o graduate sport rehabilitators o healthcare science practitioners o homeopaths o hypnotherapists o kinesiologists o massage therapists o naturopaths o nutritional therapists o psychotherapists o reflexologists o Reiki healers o Shiatsu therapists o yoga therapists

				• Those not participating
				  ○ physician associates (although at the time of writing there are processes underway that will see them statutorily regulated)
				  ○ healthcare assistants
				  ○ 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

Table 4: Overview of recent efforts to improve efficiency and accountability of health-workforce oversight in Ontario and select jurisdictions

Types of efforts pursued		Jurisdiction			
		Ontario	**Australia**	**New Zealand**	**United Kingdom**
Changes to the models of regulation prominently used • Agency regulation • Complementary regulation • Compliance-based regulation • Co-regulation • Direct government regulation • Voluntary regulation • Self-regulation	Changes pursued	• No changes pursued	• Gradual shift from state-based regulation to national regulation through the creation of the Australian Health Workforce Institute in 2010	• No changes pursued	• Publication of 'Right Touch Reform' by the Professional Standards Authority • Government issued a consultation on reform in October 2018
	Changes targeting efficiency	• No changes pursued	• No changes pursued, although the mandate of an evaluation to determine the efficiency of the National Registration and Accreditation Scheme in 2014 signals efficiency as a concern in past reforms (28)	• No changes pursued	• Request by the Secretary of State for Health for Professional Standards Authority to conduct evaluation of oversight efficiency and effectiveness in 2012 signals efficiency as a concern among decision-makers (29) • Small changes pursued in evaluating efficiency of councils with concept of relative efficiency of regulating different professions (defined concept of 'regulatory force' depending on how large the registrant pool is), leading them to believe smaller regulators are less efficient • New focus on establishing targeted preventive efforts as part of efficiency dimension in 'Right Touch Reform' • Government call for consultations on reform in 2017 included a section on efficient regulation, with Professional Standards Authority providing an official response that is being

					considered by government (30)
	Changes targeting accountability	• No changes pursued	• No changes pursued	• No changes pursued	• No changes pursued
Changes to the approaches to oversight within models • Risk-of-harm • Competencies • Controlled acts and/or scopes of practice • Performance measurement and management	Changes pursued	• Expansion of scope of practice for midwives to order and apply soundwaves for pregnancy diagnostic ultrasound or pelvic diagnostic ultrasound • Expansion of scope of practice for physiotherapists to order diagnostic tests including laboratory tests, specified X-rays, and diagnostic ultrasounds	• No changes pursued	• Workforce data including health practioner's name, date of birth, employer, place of work and average hours work must be regularly reported to government (31)	• Increasing emphasis on establishing risk-of-harm as the approach to workforce oversight
	Changes targeting efficiency	• Expansion of scope of practices for registered nurses and nurse practitioners to prescribe select controlled drugs and substances independently	• No changes pursued	• No changes pursued	• Development of a standard higher-education data set through common data definitions
	Changes targeting accountability	• No changes pursued	• No changes pursued	• No changes pursued	• No changes pursued
Changes to other characteristics of workforce oversight • Number of health professions regulated • Number of oversight bodies involved	Changes pursued	• Additional health professionals have become regulated including pharmacist assistants and medical radiation technologists	• In 2010, established a regulation impact assessment which undertakes a cost-benefit assessment of regulation for a given profession • Recent addition of paramedicine to those categories of health professionals who are regulated	• Explicit function of regulatory authorities to promote and facilitate interdisciplinary collaboration and cooperation(31)	• Social workers moved out of health and care professions council

• Approach to grouping professionals within oversight bodies • Core functions of oversight bodies • Additional stakeholders engaged in workforce oversight and their role • Key groups of health workers not currently regulated	Changes targeting efficiency	• No changes pursued	• In two regions, Queensland and New South Wales, single complaints commissions have been established • A review in 2014-15 led to reductions in the redundancies between the accreditation of training programs and accreditation of providers • Oversight bodies are funded on a cost-recovery basis from professionals, meaning no public subsidies are provided, which provides an incentive to run as efficiently as possible	• Independent performance reviews of regulatory authorities at least every five years to determine effectiveness and efficiency of their functioning (31) • Regulatory authorities are now required to pay the administrative costs of the Health Practitioners Disciplinary Tribunal, with the amount payable pro-rated for the number of practitioners registered with the authority (31)	• No changes pursued
	Changes targeting accountability	• Creation of the Ontario Patient's Ombudsman • Creation of the Fairness Commissioner to assess the practices of certain regulated professions and trades to ensure they are transparent • Health Professions Regulatory Advisory Council provides advice to the minister of health on risk-of-harm from activities associated with health professional's practice in efforts to determine what categories of professionals to regulate • Requirement that professionals resign or restrict their practice within hospitals while under investigation of competence, negligence or conduct	• No changes pursued	• Review of the Health Practitioners Competence Assurance Act to ensure the act retains the ability to safeguard health practitioner's competence in a changing health system • Widen the ability for any person, including patients and members of the public, to raise issues about a practitioner's practise, conduct or competency • Changes to re-certification requirements for vocationally registered doctors (32)	• As part of the right touch reform, councils implemented a new set of approaches to deal with concerns about healthcare professionals, including the need to distinguish between remediable and non-remedial cases

In addition to the findings outlined in Tables 3 and 4 above, the jurisdictional scan and key informant interviews identified two initiatives – both led by the Professional Standards Authority (PSA) with support from the Centre for Health Service Economics and Organization (CHSEO) in the United Kingdom – to take preliminary steps towards evaluating the effectiveness and efficiency of the workforce oversight models in the United Kingdom in 2012, and in Australia in 2014.(28; 29)

The United Kingdom evaluation was requested by the Secretary of State for Health in the strategic paper 'Enabling Excellence: Autonomy and Accountability for Health and Social Care Staff' in 2011,(33) with the aim of determining whether it was possible to reduce the costs of regulation while still protecting the public. This request emerged alongside a number of cost pressures that were building in the system at the time, including increases in the number of complaints and reviews of professional 'fitness to practice', and stagnant workforce salaries that precluded professional councils' will to raise registration fees to fund the required increase in core regulatory activities. The evaluation combined data from councils' operational budgets with performance assessments across key functional domains. While recognizing the limitations inherent in the evaluation (lack of consistent and comprehensive data, self-report bias, etc.,) the United Kingdom evaluation concluded that:

1) there appear to be economies of scale in workforce-oversight functions, with register sizes of 100,000 to 200,000 realizing efficiency gains, particularly with respect to the unit costs associated with standard setting and guidance, and education and training functions;
2) efficiency of workforce-oversight functions are likely to vary across different regulators and professions due to a number of key factors, including:
    a. differences in statutory duties as outlined in legislation,
    b. differences in internal operations and governances, and
    c. differences in the nature of professions being regulated (e.g., number that are registered each year, number of international applications for registration, extent of pre-licensure training required for registration, the number of educational and training institutions involved in and requiring accreditation to support professional education and training, number and source of complaints cases, and the nature of complaints); and
3) while it wasn't possible in the PSA/CHSEO's preliminary analyses, it is important to integrate the concept of 'indirect costs' into any future estimate of workforce-oversight efficiency, given third parties (e.g., employers, educators and registrants) also face costs outside of the councils.

The Australian evaluation was conducted as a result of a request made by the Australian Health Workforce Ministerial Council for the PSA (with support from CHSEO) to apply methods similar to those established and pursued in 2012 in the United Kingdom evaluation outlined above to conduct a cost-effectiveness and efficiency review of the National Registration and Accreditation Scheme for health practitioners. Similar to the United Kingdom analysis, the evaluation found that scale and size of regulator matters, with efficiency improvements and economies of scale found with 10% increases in registry size estimated to yield a 2.4% decrease in total unit costs, and a 2.5% decrease in the unit costs associated with addressing notifications (complaints). Efficiencies were also found when the size of the professional boards (similar to Ontario's colleges, or the United Kingdom's councils) were increased. Similar to the analysis of the United Kingdom, the evaluation concluded that there is variation across different types of regulators for different professions. Importantly, the Australian evaluation also concluded that there were some key efforts that may be pursued to save costs and improve regulatory efficiency in the country, including:

1) merging boards and regulatory functions across certain professions;
2) establishing cost 'benchmarking' for regulatory functions that can help to set standards across boards; and
3) adopting more efficient means of communicating (e.g., video and teleconferencing).

Key findings from key informant interviews about potential options in Ontario for improving the efficiency and effectiveness of health-workforce oversight

In light of the paucity of available research evidence that clearly points to any single approach to health-workforce oversight that can improve efficiency and effectiveness, and few examples of reforms implemented elsewhere that have explicitly pursued these aims, many of the key informants engaged as part of preparing this rapid synthesis noted that it is difficult to determine a clear path forward for Ontario. Furthermore, a number of key informants highlighted that there is currently no established measure of regulatory 'effectiveness' or even a common performance-measurement framework for Ontario's regulatory colleges similar to the one adopted by the PSA in the United Kingdom, which makes it a challenge to define how any single approach to changing either the models (or approaches used within the models) could help to achieve pre-defined efficiency or effectiveness goals.

These challenges notwithstanding, key informants drew on their own tacit knowledge and experiences to suggest steps Ontario could take to move away from the status quo (Table 5). Despite not being supported by a robust body of evidence about how they could yield improvements in the efficiency and effectiveness of health-workforce oversight, key informants suggested they are at least defensible suggestions to be considered (and in some cases are supported by the preliminary evaluations conducted in Australia and the United Kingdom). In particular, six changes to the status quo were put forth for consideration:

1) adjust existing legislation to simplify approvals for targeted changes to oversight and regulation functions (e.g., continuing competencies);
2) transition from scope-of-practice and controlled acts towards competency-based oversight;
3) identify opportunities for vertical integration of colleges and, where possible, horizontal integration of professional regulation within sectors (e.g., rehabilitation);
4) consolidate complaints management and disciplinary functions into a single body outside of the regulatory colleges (which was also raised as a potential solution to some efficiency challenges faced by the Royal College of Dental Surgeons of Ontario in complaints management, and outlined in a report conducted by the PSA in 2013);(34)
5) consolidate back-office administrative functions (e.g., co-location, web services, legal services); and
6) integrate employers and healthcare organizations into workforce oversight.

In suggesting these changes, key informants argued that some of them may help improve efficiency by:

- improving regulatory flexibility and thus reducing the need for arduous decision-making processes as the health system evolves (suggestions 1 and 2);
- taking advantage of economies of scale and more standardization for particular functions (suggestions 3, 4 and 5), which is supported by the findings from evaluations in Australia and the United Kingdom outlined above; and
- ensuring organizations are playing to their comparative strengths in workforce oversight (suggestion 4).

Participants also noted that certain changes could help improve:

- equity and fairness (e.g., suggestion 4, given it would facilitate complaints management and disciplinary processes that are of the same standard across all regulated professions, ensuring members of the public would have their concerns addressed equally, regardless of the type of health professional implicated in the situation); and
- accountability (e.g., suggestion 6, given organizations that create the environments in which health workers practise would be much more involved in the direct oversight of the health workforce).

One additional suggestion that was raised by key informants was to consider where there might be potential efficiencies through pan-Canadian initiatives including the establishment of a pan-Canadian professional registry. While key informants made it clear that this isn't an action Ontario can take on its own, there are potential benefits such as improving information sharing and quality assurance (e.g., by signalling health

professionals moving between jurisdictions), both of which could be used as a case to coordinate with other provinces. Some key informants stated that there are already examples of this in practice, with the BC College of Nurses currently in the process of developing a pan-Canadian registry with other nursing colleges across the country.

Table 5. Potential reforms suggested by key informants

Potential changes suggested by key informants	Arguments for efficiency or effectiveness	Facilitators and barriers

1) Adjust existing legislation to simplify approvals for targeted changes to oversight and regulation functions (e.g., continuing competencies)	• Improve efficiency through regulatory flexibility
	  o By adjusting the existing legislation so that the approvals process for more targeted changes (e.g., requirements of continuing competence programs; requirements for data collection) hinges on the Ministry of Health without requiring constant incremental changes to legislation, regulatory flexibility to respond to changes in the health system is enabled at a quicker pace given they will not need to wait for cabinet approval or the legislative process
		• **Barriers include:**
		  o Changes themselves would require legislative approach which may take a considerable amount of time

2) Transition from scope-of-practice and controlled acts towards competency-based oversight	• Improve efficiency through regulatory flexibility
	  o Competency-based oversight can help to facilitate quicker changes in who does what in the health system, which is particularly important when there are shortages of particular professionals or when there are clear benefits of shifting tasks from one health worker to another
	• Other benefits may include reducing the potential for 'turf-wars' and protection of functions over particular activities or services
	• **Example in practice:** The United Kingdom is currently operating on a competency-based oversight system and Norway has recently made this shift
		• **Barriers include:**
		  o Not all categories of health professions have established professional competencies, nor, in some instances, have these been integrated into the core functions of the regulatory colleges
		  o Represents a significant departure from scope of practice and controlled acts which would require overhauling the governance arrangements (e.g., *RHPA*) and financial arrangements for many professionals
		• **Facilitators include:**
		  o While politics involved in this change may make widespread adoption of competency-based oversight unrealistic, targeted efforts could be made to expand the number of professionals using competencies to guide other core functions of professional colleges such as in a similar way to CANMeds for physicians

3) Identify opportunities for vertical integration of colleges and, where possible, horizontal integration of professional regulation	• Improve efficiency by taking advantage of economies of scale and more standardization
	  o If there are multiple colleges covering one professional category (e.g., nurses), or several categories in a single sector (e.g., rehabilitation), integrating these colleges may facilitate administrative
		• **Barriers include:**
		  o Potential for significant pushback given concerns about infringement on professional autonomy
		  o Concerns that for horizontal regulation, professions are so different that for core functions of

within sectors (e.g., rehabilitation)	efficiencies for functions common for the oversight of all professionals involved, as well as greater standardization across the professions that are integrated o **Example in practice:** Recent integration of licensed practical nurses, registered psychiatric nurses, registered nurses, and nurse practitioners from different colleges o **Example in practice:** Horizontal integration through the Professional Standards Authority, however, significant regulatory work continues to be undertaken by individual professional regulators	oversight bodies such as licensing and quality assurance, employing common staff to undertake these roles is not possible o Significant pushback in trying to pursue this option may lead to reducing (if not eliminating) any efficiencies that could be gained
4) Consolidate complaints management and disciplinary functions into a single body outside of the regulatory colleges	• Improve efficiency by taking advantage of economies of scale, more standardization and ensuring organizations are playing to their comparative strengths o Separating out complaints management from the core functions of the regulatory colleges into a central organization that would conduct this work pan-professionally could enhance technical efficiencies by streamlining processes, reducing duplication across colleges, and allowing colleges to focus on what they're uniquely positioned to do (e.g., setting practice standards and ensuring continuing competence) • Other benefits include equity and fairness (given patients could expect complaints management and disciplinary processes that are the same standard across all regulated professions, regardless of the size of the college) • **Example in practice:** Complaints management has been centralized and taken out of the core functions of regulatory bodies in both New Zealand and Australia	• **Barriers include:** o Addition of a new organization involved in the regulation of health professionals may be seen as redundant and adding to an already complex landscape • **Facilitators include:** o Change may easily gain public support as it could serve to reduce uncertainties about who to contact should a patient need to make a complaint o Greater equity in how complaints against health professionals are dealt with could enable public support for the reform
5) Consolidate back-office administrative functions (e.g., co-location, web services, legal services)	• Improve efficiency by taking advantage of economies of scale and more standardization o Combining back-office administrative functions such as managing property lease agreements, web service hosting, and legal services, across many groups of health professionals may benefit from economies of scale and standardization, which could lead to technical efficiencies • **Example in practice:** Back-office integration of information technology and investigators for complaints in the BC College of Nursing Professionals	• **Barriers include:** o Concerns that integration of back-office functions could lead to further integration • **Facilitators include:** o Allows smaller colleges to share in the cost of otherwise expensive requirements (e.g., IT infrastructure and IP purchases) o Supports smaller colleges to then redirect these resources elsewhere

6) Integrate employers and healthcare organizations into workforce oversight	• Benefits include improving accountability by ensuring the organizations that create the environments in which health workers practice are much more involved in the direct oversight of the workforce	• **Barriers include:** o Would require involving another stakeholder in an already crowded policy space o Requires employers and regulators to interact in ways that they are not currently o Could support changes to workplace settings that result in challenges adhering to professional standards or patient complaints

REFERENCES

1. McMaster Health Forum. Chapter 2: Financial arrangements. In Lavis J (editor). Ontario's health system: Key insights for engaged citizens, professionals and policymakers. Hamilton: McMaster Health Forum; 2016.
2. Ministry of Health and Long-Term Care. Ontario Health Teams: Guidance for health care providers and organizations. Toronto: Ontario QsPf; 2019.
3. Waddell K, Moat K, Lavis J. Dialogue summary: Modernizing the oversight of the health workforce in Ontario. Hamilton: McMaster Health Forum; 2017.
4. The Michener Institute of Education at UHN. Ontario launching first phase of the personal support worker registry. Toronto: The Michener Institute of Education at UHN; 2018. https://michener.ca/ontario-launching-first-phase-personal-support-worker-registry/ (accessed 2019 29 March).
5. Beaupert F, Carney T, Chiarella M, et al. Regulating healthcare complaints: A literature review. *International Journal Health Care Quality Assurance* 2014; 27(6): 505-18.
6. Baumann A, Norman P, Blythe J, Kratina S, Deber RB. Accountability: The challenge for medical and nursing regulators. *Healthcare Policy* 2014; 10(Special issue): 121-31.
7. Bourgeault I, Kuhlmann E, Neiterman E, Wrede S. How can optimal skill mix be effectively implemented and why? Copenhagen: WHO Euro; 2008.
8. Chopra M, Munro S, Lavis JN, Vist G, Bennett S. Effects of policy options for human resources for health: an analysis of systematic reviews. *Lancet* 2008; 371(9613): 668-674.
9. Xue Y, Ye Z, Brewer C, Spetz J. Impact of state nurse practitioner scope-of-practice regulation on health care delivery: Systematic review. *Nursing Outlook* 2016; 64(1): 71-85.
10. Fealy GM, Casey M, O'Leary DF, et al. Developing and sustaining specialist and advanced practice roles in nursing and midwifery: A discourse on enablers and barriers. *Journal of Clinical Nursing* 2018; 27(19-20): 3797-3809.
11. Ruco A, Walsh CM, Cooper MA, Rabeneck L. Training non-physicians to do endoscopy: Feasibility, effectiveness and cost-effectiveness. *Best Practice in Research & Clinical Gastroenterology* 2016; 30(3): 389-96.
12. Davies A, Bennett P, Nancarrow S, Cuesta-Vargas A. Specialisation versus special interest: The Australian podiatry experience. *Journal of Foot & Ankle Research* 2015; 8: 69.
13. Wenghofer EF, Kam SM. Evolving professional regulation: Keeping up with health system evolution. *Healthcare Papers* 2017; 16(4): 30-35.
14. Regan S, Orchard C, Khalili H, Brunton L, Leslie K. Legislating interprofessional collaboration: A policy analysis of health professions regulatory legislation in Ontario, Canada. *Journal Interprofessional Care* 2015; 29(4): 359-64.
15. Dower C, Moore J, Langelier M. It is time to restructure health professions scope-of-practice regulations to remove barriers to care. *Health Affairs* 2013; 32(11): 1971-6.
16. Duncan EA, Murray J. The barriers and facilitators to routine outcome measurement by allied health professionals in practice: A systematic review. *BMC Health Services Research* 2012; 12: 96.
17. Klassen A, Miller A, Anderson N, Shen J, Schiariti V, O'Donnell M. Performance measurement and improvement frameworks in health, education and social services systems: a systematic review. *International Journal for Quality Health Care* 2010; 22(1): 44-69.

18. Lemire M, Demers-Payette O, Jefferson-Falardeau J. Dissemination of performance information and continuous improvement: A narrative systematic review. *Journal of Health Organizational Management* 2013; 27(4): 449-78.

19. Merkur S, Mladovsky P, Mossialos E, McKee M. Do lifelong learning and revalidation ensure that physicians are fit to practice? Copenhagen: WHO Euro; 2008.

20. Vaughan B, Sullivan V, Gosling C, et al. Assessing fitness-to-practice of overseas-trained health practitioners by Australian registration & accreditation bodies. *BMC Medical Education* 2012; 12(1): 91.

21. College and Associtaion of Registered Nurses of Alberta. Learning from experience: Improving the process of internationally educated nurses applications for registration. Edmonton: College and Association of Registered Nurses of Alberta; 2016.

22. Risso-Gill I, Legido-Quigley H, Panteli D, McKee M. Assessing the role of regulatory bodies in managing health professional issues and errors in Europe. *International Journal for Quality in Health Care* 2014; 26(4): 348-57.

23. Dieleman M, Shaw DM, Zwanikken P. Improving the implementation of health workforce policies through governance: A review of case studies. *Human Resources for Health* 2011; 9: 10.

24. Professional Standards Authority. The role of risk in regulatory policy: A review of the literature. London: Professional Standards Authority; 2015.

25. Licen S, Plazar N. Identification of nursing competency assessment tools as possibility of their use in nursing education in Slovenia: A systematic literature review. *Nurse Education Today* 2015; 35(4): 602-8.

26. Driscoll A, Harvey C, Green A, et al. National nursing registration in Australia: A way forward for nurse practitioner endorsement. *Journal of the American Academy of Nurse Practitioners* 2012; 24(3): 143-148.

27. Lillis S, Van Dyk V. Workplace-based assessment for vocational registration of international medical graduates. *Journal of Continuing Education in the Health Professions* 2014; 34(4): 260-4.

28. Professional Standards Authority. Cost-effectiveness and efficiency review of the Australian National Registration and Accreditation Scheme for health professionals. London: Professional Standard Authority; 2014.

29. Professional Standards Authority. Review of the cost effectiveness and efficiency of the health professional regulators. London: Professional Standards Authority; 2012.

30. Department of Health and Social Care. Promoting professionalism, reforming regulation. London: Department of Health and Social Care; 2017.

31. Parliament of New Zealand. Health practitioners competence assurance amendment bill: As reported from the Health Committee. Wellington: Parliament of New Zealand; 2019.

32. Medical Council of New Zealand. A model for strengthened recertification requirements for vocationally-registered doctors practising in New Zealand. Wellington: Medical Council of New Zealand; 2019.

33. Department of Health and Social Care. Enabling excellene: Autonomy and accountability for health and social care staff. London: Government of the United Kingdom; 2011.

34. Professional Standards Authority. A review conducted for the Royal College of Dental Surgeons of Ontario. London: Professional Standards Authority; 2013.

35. Clifford A, McCalman J, Bainbridge R, Tsey K. Interventions to improve cultural competency in health care for Indigenous peoples of Australia, New Zealand, Canada and the USA: A systematic review. *International Journal for Quality in Health Care* 2015; 27(2): 89-98.

36. Carney T, Beaupert F, Chiarella M, et al. Health complaints and regulatory reform: Implications for vulnerable populations? *Journal of Law & Medicine* 2016; 23(3): 650-61.

APPENDICES

The following tables provide detailed information about the systematic reviews and primary studies identified in the rapid synthesis. The ensuing information was extracted from the following sources:

- systematic reviews - the focus of the review, key findings, last year the literature was searched, and the proportion of studies conducted in Canada; and
- primary studies (in this case, economic evaluations and costing studies) - the focus of the study, methods used, study sample, jurisdiction studied, key features of the intervention and the study findings (based on the outcomes reported in the study).

For the appendix table providing details about the systematic reviews, the fourth column presents a rating of the overall quality of each 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).

All of the information provided in the appendix tables was taken into account by the authors in describing the findings in the rapid synthesis.

Appendix 1: Summary of findings from systematic reviews about the efficiency and effectiveness of the health workforce regulatory system

	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
Models of regulation	Examining the policy options addressing health human resources challenges in low- and middle-income countries.(8)	The management of human resources in health presents a challenge to policymakers, particularly in low- and middle-income countries. The review examined 28 systematic reviews in order to identify the landscape and effectiveness of policy options addressing human resources challenges. A number of key policy objectives were identified in the review of options: training interventions; regulatory mechanisms; financial mechanisms; organizational mechanisms; community involvement; and macro policies. One review addressed the impact of training and regulatory mechanisms. While no studies met eligibility criteria, the review found that changes in medical school admission policies, including bias towards applicants with interests in general practice or male applicants, increased rural service. Three reviews examined the impact of financial policies on human resources for health, including performance-based incentives and the effects of remuneration on worker performance. In comparison to capitation or salaried remuneration, fee-for-service models increased visits to primary-care providers and specialists. While the quality of evidence for financial incentives was low, reviews found that performance-based incentives for physicians improved immunization coverage, and incentives for students increased practice in rural regions after training. A number of reviews examined the effects of organizational mechanisms on health-workforce management. Changes in workload were found to increase efficiency; for instance, involvement of nurse facilitators, increased numbers of nursing staff, and the use of community health workers for certain tasks, such as monitoring tuberculosis treatment, contributed to improved patient outcomes. Eight reviews examined the impact of task-shifting and found that substituting nurses for physicians yielded improved outcomes. Further, ongoing quality improvement and education were found to contribute to improvements in performance in six reviews. However, many studies were conducted in high-income settings and effects in low- and middle-income countries must be considered. This review found a limited amount of high-quality research into policy options for health-workforce management in low- and middle-income countries. Given the importance of systematic reviews to policymakers, more research in this area is needed.	2006	8/9	Not reported in detail
	Examining the role of risk in professional regulation (24)	Risk management plays a central role to government regulation of health services in the United Kingdom This regulation emerged as a result of combined government changes and pressures from businesses to de-regulate. The review examines the role of risk in regulation. Regulatory risks describe risks to the population posed by the regulated entities, such as the risks posed by healthcare professionals to patients. Risk-based approaches to regulation identify risks of harm and respond accordingly, focusing on minimizing adverse outcomes.	Not reported in detail	N/A	Not reported in detail

	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
		This review argues that for a government to adopt a risk-based approach, there must be an inherent understanding that some risks are more tolerable than others. Eliminating risks is not a feasible approach to governance and oversight, and a certain level of risk is acceptable. Further, it is possible that risks can be measured through quantifying potential impact and likelihood of occurrence. It is important that qualitative assessment accompanies this quantification of risk, so that regulators understand how to appropriately manage risk. There are many models of risk-based regulation, and all share common characteristics, including: 1) assumptions about regulation and risk assessment; 2) cycles of risk assessment, design, application and review; and 3) the inclusion of key elements related to information gathering, standard setting, and behaviour modification. Benefits of risk-based approaches to regulation include improved efficiency through risk-stratified resource allocation, supported decision-making, and systematic insight into new evidence and risks. However, there are also key challenges. Limitations to methodology presents a limitation; for instance, healthcare regulators can examine data to identify high-risk practitioner groups, but managing false positives remains a challenge. The collection of data poses a challenge, and analyzing data in the field of healthcare varies in quality and quantity. The implementation of risk-based approaches to regulation is a complex task, but presents a rational approach to management.			
Approaches to oversight used within different models	Assessing the effectiveness of greater scope-of-practice regulations for nurse practitioners (9)	The work of nurse practitioners is moderated by state scope-of-practice regulations. It has been suggested that expanding the scope of practice of nurse practitioners could help reduce the impact of the shortage of primary-care physicians in the future. The review examined 15 studies to assess the effect of greater scope-of-practice regulations for nurse practitioners. Three outcomes of interest were: the nurse practitioner workforce, healthcare access and utilization, and healthcare costs. This review found a positive association between an expanded scope of practice and the per capita number of working nurse practitioners in a state. States that granted full scope-of-practice regulations were more likely to have nurse practitioners operating in rural and underserved areas, with a more equitable distribution of workers across regions. In fact, scope-of-practice regulations were found to be a significant determinant of healthcare team composition in federally funded community health centres. A greater number of nurse practitioners in combination with prescription authority for select medications could increase primary care and overall number of office-based visits. However, no association was found between increased scope of practice of nurse practitioners and access to care by the public.	2015	6/10	0/15

	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
		Four studies examined the impact of state nurse practitioner scope-of-practice regulations on healthcare costs. Two separate studies had contradictory results regarding the effect of expanded scope of practice on determining the income of nurse practitioners. In a different study, it was found that less restrictive scope-of-practice regulations for nurse practitioners did not have an impact on office-based visit costs. The non-competitive primary-care market may explain this. In retail clinics where nurse practitioners provided primary-care services, one study found that there were higher costs associated with granting nurse practitioners both independent practice and prescriptive authority compared to independent practice authority alone. The 15 studies examined in this review provide evidence that reducing restrictions on scope-of-practice regulations for nurse practitioners could lead to increases in primary-care capacity and healthcare utilization. There was inconclusive evidence regarding the impact on healthcare costs. Further research is needed and the clinical specialities of nurse practitioners taken into consideration to help understand the role of nurse practitioners in healthcare delivery.			
	Describing the issues that have influenced policy formulation in the health workforce (23)	Governance is a key issue in the field of human resources for health, but policy development in this area is often poor. The review examined 16 case studies in order to describe the issues that have influenced policy formulation in this field. Dimensions of governance included in this review were performance, equity and equality, partnership and participation, and oversight. In terms of performance, a number of cases demonstrated that limited participation in decision-making impedes policy implementation. The importance of leadership, vision and direction were described in a number of cases, outlining the importance of major stakeholders in motivating change. Decentralization was a focus in a number of articles, capturing both positive and negative outcomes of the process. For instance, while decentralization enhanced trust in government and increased local service flexibility in some cases, this process was found to increase the workload at a local level in certain cases. Five articles addressed issues of equity and equality in health-workforce policies. For instance, one case study examined the process of decentralization in health services in Indonesia, and found that this process may cause disadvantaged populations to be lost in the system. Local context was an important consideration in these case studies. Partnership and participation were found to be an important secondary role in most studies in the review. A number of partnerships were found to be influential in human resources for health, including partnerships between governments and development partners, and partnership with the private sector. Partnership and participation in conflict areas and fragile states, and participation of health-worker associations and unions presented key sites of influence. Taken together, these partnerships hold promise for innovation and broad ownership of human resources policies.	2010	1/9	0/16

	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
		Six case studies examined oversight, and found that political interference was a key obstacle in policy implementation. However, more research in this area is needed.			
	Assessing the barriers and enablers to expanding scope of practice in nursing and midwifery (10)	In recent times, the scope of practice in the fields of nursing and midwifery has expanded to meet population needs. The review examined 38 research items to assess the barriers and enablers to expanded scope of practice in these fields. Six major themes emerged from the literature: 1) conceptual confusion and role clarity; 2) endorsement and credentialing; 3) education and training; 4) individual scope of practice; 5) work organization; and 6) cost. Clear definition of advanced practice roles was found to be key to the development and sustainability of these positions. Uncertainty lead to role conflict in a number of cases - models of oversight can potentially contribute positively through detailed job description and regulation. Professional regulation and accreditation were found to play an important role in advanced practice roles. Explicit policy that guided role development contributed to clear leadership roles, and credential provision was found to be essential to role regulation. In Canada, variation in nursing scope of practice exists across provinces and territories – this lack of uniformity presents a barrier to the expansion of practice. This review found that accreditation frameworks were important in training professionals to advance their role in the health workforce. Frameworks for professional role development were found to provide opportunities for individual leadership and growth. The structure of the workplace and reimbursement models was also found to play a role in role expansion. For instance, existing mechanisms for reimbursement often present a barrier to expanded nursing scope of practice. Taken together, it is possible that regulatory barriers and models of workforce oversight must be examined, and potentially restructured, in order to effectively expand nursing scope of practice.	2016	4/9	10/38
	Examining the evidence for the expansion of colorectal screening programs to the non-physician workforce (11)	Colorectal cancer poses a significant burden to the health system, as one of the most common cancers worldwide. Expanding access to screening through expanding non-physician scope of practice is a potential area of opportunity, and the oversight and regulation of this expansion is important. The review examined the evidence for expansion of screening programs. Non-physician colorectal screening programs have been implemented in a number of jurisdictions. For instance, this review reported on the Ontario Registered Nurse-performed Flexible Sigmoidoscopy program that was launched in 2007 and has since grown to at least nine sites. Oversight and regulation of program implementation were found to be key components for success. For instance, this review noted that physician liability was a concern when nurse-performed flexible sigmoidoscopy was established in Ontario. This concern was met with collaborative guidelines and	Not reported in detail	N/A	Not reported in detail

	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
		role clarity from the Ministry of Health and Long-Term Care, Cancer Care Ontario and Ontario Medical Association, thus protecting physician liability. Nurses were protected through hospital coverage, and additionally by the Canadian Nurses Protective Society. Further, two compensation models – a per diem model and an Ontario Health Insurance Plan reimbursement model – were developed to meet new reimbursement needs. Training programs were also developed for nurses participating in the program. Taken together, expanding colorectal cancer screening to non-physicians was found to be feasible, safe and effective. However, expansion of such programs relies on diligent models of oversight and regulation.			
	Assessing the barriers and facilitators to outcome measurement among allied health professionals (16)	Routine measurement of the outcomes of allied health professional work, including patient outcomes, is a key component of health-workforce oversight. The review examined 15 studies in order to assess the barriers and facilitators to outcome measurement. Four themes emerged from the literature: 1) knowledge, education, and perceived value in outcome measurement; 2) support/priority for outcome measure use; 3) practical considerations; and 4) patient considerations. Knowledge was found to have a significant impact on routine outcome measurement, as greater familiarity and value associated with measures increased uptake in practice. High-level organizational support for outcome measurement was found to facilitate use – however, measures were viewed more positively when individual practitioners had choice and options in selection. Practical considerations having an impact on uptake included time, suitability of measures, and lack of funding. Finally, outcome measurements were more likely to be used when clinicians perceived value in the ability of these measures to support patient outcomes. Health-workforce oversight may play a significant role in the implementation of outcome measurement through training, support and proper resource allocation. However, this review found that imposition of measures posed a potential barrier to uptake, and mechanisms should be developed to cope with these obstacles.	2010	6/10	3/15
	Identifying frameworks outlining outcome measurement across health, education and social-service systems (17)	Quality improvement and performance measurements in health, education and social-service systems can improve outcomes among populations. The review identified 110 articles that contained 111 frameworks outlining outcome measurement among systems. Most identified frameworks were designed for use in the health workforce, reflecting increased value on quality improvement in healthcare. This review found that the most common framework in use was the balanced scorecard, which may indicate its significant contribution to outcome measurement in the context of healthcare provision. While many variations of this framework were identified, quality concept groupings included collaboration, learning and innovation, management perspective, service provision and effectiveness of outcomes. Inter-sectoral frameworks were limited, indicating a need for collaboration across services.	2007	6/9	23/110

	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
	Examining and evaluating interventions addressing cultural competency in healthcare for Indigenous populations (35)	The incorporation of cultural competence in health policy documents and professional accreditation signals its central importance to recognizing health disparities among populations. The review examined 16 studies in order to examine and evaluate interventions addressing cultural competency in healthcare for Indigenous populations in New Zealand, Canada and the U.S. Three intervention strategies were identified: 1) education/training of health professionals; 2) culturally specific health programs; and 3) Indigenous health workforce. Education and training strategies delivered interventions to health professionals and measured outcomes such as knowledge and confidence in cultural competency, with mixed results. Culturally specific Indigenous health programs were examined on measures of care delivery, patient satisfaction and health outcomes. Significant improvements in patient satisfaction were generally seen, with positive health outcomes also reported. Three studies examined Indigenous involvement in the health workforce. In these studies, Indigenous health workers provided care such as diabetes treatment, dental care, and breast-cancer screening. In general, positive outcomes were seen in terms of patient satisfaction and health outcomes. Specifically, breast-cancer screening rates improved when Indigenous women were supported by an Indigenous patient navigator.	2013	8/10	0/16
	Exploring the factors associated with effectively communicating performance information in health systems (18)	Performance measures are an important component of decision-making in health systems. The review examined 114 articles in order to explore the factors associated with communicating performance information as a part of system improvement in health organizations. Three major findings emerged from the literature. First, this review found that disseminating performance information in healthcare systems was not sufficient to improve initiatives. Success of interventions was found to rely on a number of factors, including the context of governance and organization, and the processes through which knowledge use is supported and incentivized. Second, the success of knowledge dissemination relies on coherence among these elements, such that the workforce has adequate resources to achieve set objectives. Thus, interventions must be considered within the context of both upstream and downstream implementation practicalities and should be integrated into the governance context. Third, this review found that, within the context of health systems, clinicians benefit the most from performance information due to their position in the systemic structure. This review stipulated that certain factors should be in place to support ongoing improvement among health organizations. This included an understanding of organizational context, with proper integration of performance-information dissemination with existing mechanisms (e.g., the ways in which employees already access information). There should be collaboration and agreement on how knowledge is used, and effective leadership support to users was found to be essential. Finally, a variety of incentives may lead to improved outcomes.	2010	3/9	/114

	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
	Examining the implementation of optimal skill-mix in health systems (7)	Health systems face certain human resources challenges, including staff shortages, labour migration, rising healthcare costs, and imbalances in distribution and qualification or workers. Skill-mix is a potential solution to these challenges, describing a direct or indirect change to professional roles. The policy brief examined the ways in which optimal skill-mix can be effectively implemented in health systems. Three broad elements were examined in this policy brief: 1) changes to existing professional roles; 2) proposals for new professional roles; and 3) new strategic directions for health systems. Changes to existing professional roles have focused largely on enhancing the nursing role; for instance, this role has been extended to work such as asthma clinics, patient education, and specialist home-care support. While studies demonstrated high quality care in these cases, patient outcomes and cost effectiveness were not found to be significantly different when compared with physician-led care. This brief found that proposals for new professional roles have focused on modifying structural factors, such as legislation, that have an impact on scope of practice, training, financing and certification. There are a number of factors that were found to affect the ability to implement new skill-mix initiatives in health systems. These factors included the contextual determinants (e.g., funding, remuneration, scope of practice, education and training), organizational and regulatory arrangements (e.g., the adaptability of professional regulatory bodies), collective financing and incentive structures, education, and professional associations. Barriers to initiatives were found to be embedded in the regulatory frameworks and organization of health systems, and the support of professional organizations was crucial.	N/A	N/A	N/A
	Examining the outcomes of continual physician learning and assessment (19)	Evolving knowledge in the medical field has led to growing pressure that physicians continue to meet professional standards. The policy brief examined the outcomes of continual physician learning across a number of jurisdictions. While few countries require physicians to explicitly demonstrate their fitness to practice, "revalidation" has emerged as a term with three objectives: 1) a system of professional accountability; 2) standards of care; and 3) continuing improvements to quality of care. The implementation of revalidation models depends on the values and structures of jurisdictions, which include factors such as the balance of power between physicians and patients. The regulation of physicians varies, but this brief found that professional medical bodies and other stakeholders are key to regulation in many western countries. These bodies play varying roles in regulation; for instance, physicians in the Netherlands are continuously engaged in education, and are assessed by a team of other doctors every five years. In the United Kingdom, the General Medical Council assesses fitness to practise, and a newly proposed system would implement re-licensure and recertification for physicians every five years.	N/A	N/A	N/A

	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
		The policy brief identified a number of potential approaches to enhance learning among physicians. These included learning models that reward continuing education, and assessment models that focus on performance tools. Professionally led regulatory bodies have increasingly collaborated with statutory bodies to co-regulate the profession, building on self-regulation. While context differs across jurisdictions and health systems, continuing professional development is a common goal. Modes of assessment must be further explored, and the funding of lifelong learning should be a research priority.			
	Assessing clinical competency in nursing education (25)	The review examined seven studies in order to assess clinical competency in nursing education. A number of different assessment tools were identified, measuring a range of variables including communication, leadership, caring, capability, professional growth and perceived competency. This review noted that several factors should be included in assessing competence among nurses, including prepared supervisors and students, clinical environments, and methods/tools for assessment. Competency was found to be an abstract concept, and this review found that problems of validity, reliability, subjectivity and bias had to be considered in assessment. Views of competency were found to vary between behavioural, generic and holistic approaches, further complicating its assessment. This review found that common criteria and methods for competency assessment are crucial, and can be based on national guidelines.	2013	3/9	1/7
Other characteristics of workforce oversight	Evaluating the regulation of healthcare complaints (5)	The review examined 118 papers that addressed the regulation of healthcare complaints. This review found that there has been a recent push to national registration and accreditation in a number of countries, in an effort to connect the health sector through one regulatory network. This external regulation has come to supplement the internal self-regulation that exists in some healthcare systems. The process of complaints and discipline represents an area of regulation. This review found that this process varies significantly between jurisdictions, as regulatory bodies play a different role. Some countries, such as Australia and New Zealand, have established health complaints commissions through which patients can address problems. These commissions now play a central role in the regulation of healthcare providers and may facilitate a comprehensive and systematic means by which information can be collected. However, further research in this area is needed.	Not reported in detail	N/A	Not reported in detail

Appendix 2: Summary of findings from primary studies about the efficiency and effectiveness of the health workforce regulatory system

Jurisdiction	Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
Australia	Governing arrangements underpinning podiatric role specialization in Australia (12)	*Publication date:* 2015 *Jurisdiction studied:* Australia *Methods used:* Cross-sectional survey	218 podiatrists participated in the survey, 75% of whom were from private practice. 34% of respondents were male, which is roughly representative of the gender distribution of those registered with the Podiatry Board of Australia.	The online survey was conducted over a three-week period, capturing information about practitioners' gender, years of clinical experience, work setting, location, and area of work by state. Further questions were asked of practitioners with a specific area of interest, with the aim to garner information regarding their self-perception and the types of supports provided to their specific area of interest.	There is currently only one area of specialization recognized by the Podiatry Board of Australia, that being podiatric surgery, with the protected title of "podiatric surgeon". Despite this, numerous survey respondents reported having specific areas of interest in their podiatric practices, many of which are characterized by specific activities. For example, activities that were found to be statistically significant for those with a special interest in diabetes/high risk foot included wound debridement, pathology swab, total contact cast, taking of ankle-brachial index (ABI) and requests for X-ray. As podiatric scope expands in Australia, questions have emerged regarding whether these activities are within the scope of a generalist podiatrist or whether additional training should be required to recognize an increased skill set for specific specialties. Study authors note that the future scope of practice in podiatry will be dependent on external factors such as government legislation, population aging, funding for training, and demand for services. Internal drivers will be determined from within the professional body. Current evolution of podiatry is governed by role extension and task substitution to gain the full scope of practice. Future difficult negotiations and interaction with other health professionals in an interprofessional manner will determine boundary negotiations.
	Assessing the Australian accreditation process for overseas-trained medical professionals (20)	*Publication date:* 2012 *Jurisdiction studied:* Australia *Methods used:* Qualitative interviews	Interviews were conducted with representatives from 11 organizations associated with the accreditation process of overseas-trained medical professionals in Australia. Participating organizations included the Australian Dental Council, the Australian	A semi-structured interview was used to explore how Australian health professional-assessment bodies assess overseas-trained practitioners. The survey included questions regarding the assessment of candidates' initial eligibility, basic sciences knowledge, clinical skills, communication skills, knowledge of the	Four interconnected themes were generated from interview data – assessing, process, examining, and cost-efficiency. Professional bodies used a variety of assessment strategies to assess whether an overseas-trained practitioner was eligible to be registered to practise in Australia. Such strategies include desktop assessments for basic qualifications, short-answer questions to assess clinical competencies, and clinical skills examinations to assess the performance of clinical skills. For most assessment bodies, the main risk-management processes involved ensuring stringency of evidence confirmation, vigilance when assessing areas where harm can be caused, and requiring a demonstration of clinical skills and competency. The assessment of cultural competency was deemed important for

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			Institute of Radiography, the Australian Medical Council, the Australian Nursing and Midwifery Council, and the Australian Pharmacy Council, among others.	Australian health system, and collaboration skills. Other questions probed the accreditation organization's processes for selecting assessors and maintaining accountability. The cost-effectiveness and weaknesses of each organization's procedures were also explored.	most professional bodies, but was seen as a complex issue to assess. For each organization, the assessment of overseas-trained professionals was a process that was continually being reviewed with the aim of increasing its efficiency and effectiveness. For most bodies, the minimum standard required of candidates was that of an entry-level graduate who became eligible to register as a practitioner in Australia by completing the necessary education and clinical requirements. The cost of examinations would found to vary from year to year based on the demand for assessment. Several professional bodies indicated that the number of applications was affected by issues such as the state of world economics and movement to another jurisdiction, such as in New Zealand. The cost of assessment of overseas-trained practitioners was a significant part of the annual budget for most professional bodies.
	Examining the regulation of nurse practitioners in Australia (26)	*Publication date:* 2012 *Jurisdiction studied:* Australia *Methods used:* Analysis of policy documents	N/A	Study authors examined national and state health -policy documents regarding the regulation and endorsement processes for nurse practitioners (NPs) in Australia.	This study identified several critical points of consideration in the development of national registration and broad primary healthcare reform in Australia. First, a consistent endorsement process must be developed that delivers NPs of the highest standard and allows for effective use of their skills and expertise. Second, any endorsement process must be based upon the two pillars of the Australian Nursing and Midwifery Accreditation Council competency standards, be supported by a verified decision-making framework, and consist of a period of candidacy or internship to consolidate knowledge prior to endorsement. Finally, the process must establish a high level or rigour and expectation that supports and enforces the autonomous role of NPs.
New Zealand	Workplace-based assessment for vocational registration in New Zealand (27)	*Publication date:* 2014 *Jurisdiction studied:* New Zealand *Methods used:* Retrospective data analysis	The study sample consisted of 81 international medical graduates who underwent workplace-based assessment (WBA) for vocational registration in New Zealand from 2008 to 2013.	Data from existing databases held by the Medical Council of New Zealand were used for analysis by study authors.	Currently, the cost of undertaking vocational registration in Australia is approximately $US 5,000 and WBA is considered a feasible methodology of assessment for vocational registration of international medical graduates (IMGs). The strengths of the process were found to lie in the constructivist framework of the assessment process, the preceding 12 to 18 months of experience with supervisor meetings and formal reports, and the rigorous training of assessors. In assessing complex, specialized, and integrated professional competence, the authors found that this constructivist perspective offers significant advantages to a psychometric approach.

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					The authors acknowledge, however, that tools used in such assessments need constant updating, and assessors need both formal training and regular update sessions. In this study, authors found that 87% of IMGs were successful in completing the vocational pathway. 64% undertook the year of supervised practice and completed the final assessment in a provincial center. Inadequate clinical knowledge was found to be the most common deficit found in unsuccessful applicants, followed by poor clinical reasoning. Occasional problems were also seen in clinical management, leadership, verbal communication, procedural skills, and basic skills such as history taking and physical examination. The supervisory period of between 12 and 18 months was found to be a critical component of the vocational pathway as it provides an important stepping stone for IMGs. Supervisor reports are discussed between IMGs and their supervisors, thereby providing formal review at regular intervals. The efficacy of this process is supported by research evidence pointing to the importance of feedback for learning in WBAs. A second benefit of the supervisory process is to provide opportunity for the IMGs to acclimatize to a New Zealand culture.
Canada	Registration of internationally-educated nurses in Alberta (21)	*Publication date:* 2016 *Jurisdiction studied:* Alberta *Methods used:* Retrospective, systematic statistical analysis of application data from internationally educated nurses (IENs)	On average, the IEN applicants in the dataset were 32 years of age, 12-13 years younger than the Albertan and Canadian registered nurse (RN) populations in 2011. Almost three-quarters of applicants were educated in the Philippines (48.94%) or India (24.71%). Only a quarter of the applicants had a degree considered similar to an Alberta baccalaureate (26.66%), while almost all of the applicants had practice	Researchers performed a statistical analysis of four years of IEN application data in Alberta from January 1, 2008 to December 31, 2011. This process was conducted in two stages: 1) an exploratory and confirmatory data analysis was done to examine the association of potential characteristic variables with outcomes; and 2) a timeline analysis was conducted based on date information associated with each phase in the	From the analysis of past applicant data, researchers found that the IEN application-for-registration process is lengthy, complex, and involves multiple stakeholders. The process may span several months to several years from the time of initial application submission to final registered nurse (RN) registration. After receipt of a completed application, an assessor reviews the file and makes a decision based on the applicant's education and experience. Files involving more complicated decisions were reviewed by the Registrar or Registration Committee. If an applicant meets all registration requirements and is found to have competencies roughly equivalent to a graduate of an Alberta entry-level, baccalaureate nursing program, then he or she becomes eligible to apply for a Temporary Permit (TP). A TP allows an applicant to work in Alberta as a Graduate Nurse temporarily, in order to obtain a positive Alberta employer reference based on 225 hours of employment. Often, applicants write the national entry-to-practice exam while working with a

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			currency at the time of application.	IEN application-for-registration process.	TP. The NCLEX-RN is the national entry-to-practice exam that all applicants (internationally and Canadian educated) are required to pass. Applicants who pass the national entry-to-practice exam and successfully complete all other requirements are eligible to apply for an RN registration. Informed by the findings from the data analysis, study authors developed and implemented changes to the IEN application-for-registration process. These changes included revisions to application-assessment policies, the development of guidelines for initial assessment, the introduction of an option for some applicants to proceed directly to bridging education without completing a competency assessment, a shift in the management of bridging education, revisions to process time limits, and the review and revisions of communication tools to improve clarity and transparency.
	Accountability in Canadian healthcare (6)	*Publication date:* 2014 *Jurisdiction studied:* Canada *Methods used:* Mixed-methods study (qualitative interviews supplemented by review of annual reports)	Eleven nursing regulators and 11 medical regulators in Canada participated in this study.	Thirty-minute semi-structured interviews were conducted with provincial/territorial CEOs from the two largest health professional regulatory bodies in Canada – medicine and nursing – in person or by telephone. The data from interviews was supplemented by a review of annual reports and other public documents relating to accountability in the healthcare system.	Key findings from this study were categorized under five major themes: regulatory organizational structures; perceptions of accountability; accountability to government; accountability to regulatory body members; and metrics supporting accountability. Challenges to accountability were grouped under the themes of stakeholder understanding, transparency and privacy, use of social media, and organizational costs. Overall, accountability was found to be essential to the mandates of all regulators, providing the foundation for regulatory frameworks. The definition of "accountability", however, varied significantly among regulatory bodies. In general, all regulators agreed that they were accountable to three constituencies: the public, government and their members. The competing needs of regulators to protect the public while meeting the demands of the government and their members was found to be a significant source of tension. The maintenance of independence in the regulatory role was also a concern expressed by most regulating bodies.
	Evolving professional regulation to support interprofessional care (13)	*Publication date:* 2017 *Jurisdiction studied:* Ontario	N/A	Examining interprofessional care and the evolution of professional regulation	With the growth and changes in the healthcare system, evolving professional changes and regulation are needed. The review found that the profession specificity of the system or "siloed" healthcare can be problematic to quality patient care and can lead to the attribution of blame to individuals.

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		Methods used: Commentary			Interprofessional care (IPC) has been identified as a beneficial way to improve patient care. As a result, health regulatory authorities (HRA) are tasked with moving away from focusing on the quality of the professional to that of patient care. The idea of "un-siloed" care was formally acknowledged in the 2008 Health Professionals' Regulatory Advisory Council review. There are many other efforts toward interprofessional proactive regulation, including the collaborative effect of the College of Physicians and Surgeons of Ontario (CPSO) and Royal College of Dental Surgeons of Ontario (RCDSO) on the Out-Of-Hospital Premises Inspection Program (OHPIP). Additionally, the CPSO collaborated with the Ontario College of Pharmacists (OCP) to ensure the safe prescription of methadone maintenance treatment. The review emphasized that interprofessional proactive regulation is not a panacea, however it is useful in many situations.
	Facilitators and barriers to legislating interprofessional collaboration (14)	*Publication date:* 2015 *Jurisdiction studied:* Ontario *Methods used:* Qualitative policy analysis	Not reported	Examining interprofessional collaboration regulatory legislation	Two recent amendments (2007 and 2009) to Ontario's health professions regulatory system have mandated health regulatory colleges to support interprofessional collaboration (IPC) and incorporate IPC in quality assurance programs. The review aimed to examine the activities, strategies, and collaborations pertaining to IPC in the regulatory colleges following the introduction of this legislative obligation. Three themes were identified: 'ideal versus reality'; barriers to the ideal; and legislating IPC. In terms of 'ideal versus reality', all the colleges were committed to and believed in the ideals of IPC. All were involved in working on existing structures to integrate IPC and partnering with other regulatory bodies to support collaboration. However, most of the work date back to before the legislative changes. Many participants noted that their colleges utilized integrated statements concerning IPC into their professional/practice standard statements, but they also expressed their desire to do more in terms of practice. Participants identified that there were impediments to the objectives, including scope-of-practice protection, conflicting legislation, and a lack of knowledge of the roles and skills of other professions. The barriers affect both the regulatory and practice levels. There was a limited amount of research available on IPC at the regulatory level in comparison to that at the practice level. From

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					the documents and interviews of the colleges, the commitment to IPC was evident; however, there was a lack of clarity regarding the legislative changes specifically concerning the purpose of these provisions. The review concludes that broader collaboration across sectors, rather than only at the government or regulatory stages, will address the issues and assist in achieving IPC.
Other jurisdictions	Enhancing flexibility in scope-of-practice regulation in the U.S. (15)	*Publication date:* 2013 *Jurisdiction studied:* United States *Methods used*: Analysis and Commentary	n/a	Examining the reforms of health professions scope-of-practice regulations	Following the implementation of the Affordable Care Act, there has been an increasing interest in scope of practice. The analysis suggests an urgent need for policy reforms to transform scope-of-practice regulations into 'flexible instruments' that can improve health practices. These include greater consistency between legal scopes of practice and professional competence, increased consumer input in decision-making, greater flexibility in regulation to support changes, and broader access to research supporting reformation. The analysis differentiates the terms 'professional' and 'legal' scope of practice. Professional scope of practice encompasses a "profession's description of the services that its members are trained and competent to perform". Legal scope of practice is the "state laws/regulations defining the services that may and may not be provided by members of each profession". The amount of overlap between the terms depends on the profession and state. The analysis lists the issues associated with current health professions regulation, including mismatches between professional competence and state-specific legal scopes of practice, state-to-state practice variation, limited flexibility of supports, and the slow and adversarial process of creating legislative and regulatory change. Several recommendations were suggested. Firstly, the review calls for aligning the standard scope of practice with professional competence. Additionally, it calls for regulatory flexibility that accommodates for change, recognition of the value of overlapping professional competencies, increased public engagement, the use of best available evidence, consideration of demonstration programs (e.g., California's Health Workforce Pilot Program), and establishment of a national clearinghouse.

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	Assessing the role of regulatory bodies in managing health professional issues and errors (22)	*Publication date:* 2014 *Jurisdiction studied:* Europe *Methods used:* Vignettes	Not reported	Examining the role of medical regulatory bodies in managing professional issues in Europe	The study examined the role of regulatory bodies in managing professional issues of quality and patient safety in Europe. The study collected responses from medical regulatory bodies in nine European countries. Twelve vignettes were conducted about scenarios on concerning physician standards. The responses greatly varied depending on the country, indicating that there is limited consistency in the regulation of medical professionals in Europe. In most countries, regulators recognized that action was required for most of the scenarios. The highest consistency in the answers resulted when the scenarios involved patients at risk, included issues considered as 'serious', or involved criminal activity in the clinical setting. When there was fault for poor communication and performance, the regulator would commonly hold the employer to be responsible. The study also examined the regulatory pathways in the United Kingdom., Germany and Spain. Both the United Kingdom and Germany consulted medical codes to determine breaching and courses of action. In Spain, prosecuting authorities were responsible for the cases. For non-criminal cases, Austria and Slovenia conducted retraining and investigations/sanctions. In Belgium, no retraining was enforced. The outcomes and nature of action were also examined to determine how regulators saw their own responsibilities. The study found that the strongest disciplinary sanction was the withdrawal or suspension of medical licences. Estonia and Hungary allowed legal authorities to handle the cases, stating that they lacked the legislative power to do so. The countries that referenced specific legislation in their responses often gave harsher punitive actions. The Netherlands, Spain and Estonia had the highest frequency of taking no action or referring the issue to someone else, which translated as these countries having the narrowest scope of authority. Countries such as the United Kingdom, Slovenia and Austria were stricter with their enforcement of more severe punitive actions. In the scenarios with less severe cases, many countries opted for rehabilitation. Additionally, some participants reported that they would not have been able to recognize the professional issues in some of the vignettes had they truly occurred. More numerous, but less severe issues were often resolved with 'softer disciplinary actions' decided upon by the employer.

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	Examining the healthcare complaints process in Australia (36)	*Publication date:* 2013 *Jurisdiction studied:* Australia *Methods used:* Literature review	n/a	Examining the implications of health complaints and regulatory reform for vulnerable populations	The review examined 2,322 complaints compiled into the 2013-14 report on the New South Wales, Victoria, Western Australian, and South Australian population to explore the implications of health complaints and regulatory reform for vulnerable populations. The focus of the review was on 'special vulnerability' as defined by individuals and groups especially prone to violating personal integrity or disrespect for autonomy due to exploitation, deception, coercion and disregard. It was proposed that vulnerability should be viewed as a layered and relational, rather than a permanent and categorical condition. Australia's healthcare complaint system involves the use of statutory 'ombudsman-like' bodies with wide discretionary powers. However, the model does have its limitations, including concerns that the regime provides mostly reactive tools, and questions of whether it is equipped to handle the breadth of the issues brought forward. Typically, the most common health complaint concerns treatment issues, followed by communication. With the exception of New South Wales, all states and territories utilize a national approach to register and accredit professionals. There is a complex relationship between the characteristics and circumstances of consumers and the associated number of formal complaints. The findings of the review support the notion that vulnerable groups often underuse the complaint system. Certain groups, such as older people, people from socio-economically deprived areas and ethnic minority groups, were found to be under-represented among those who complain. There is mixed evidence on whether there is a difference in complaint prevalence among people with and without disabilities. The individuals in these vulnerable groups commonly do not complain due to feelings of disempowerment. It is not yet clear whether the issue of limited health complaints is atypical or significant, or whether it could be resolved with increasing generic access to justice reforms. There is limited evidence regarding the adequacy of the Australian health system and whether the current health care complaint arrangements are sufficient to 'bridge' quality assurance and wider governance sectors.

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