

Creating Strategic Change In Canadian Healthcare

CONFERENCE WHITE PAPER WORKING DRAFTS

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The Need for a pan-Canadian Health Human Resources Strategy

WHITE PAPER - WORKING DRAFT

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INTRODUCTION

Health human resources (HHR) represents the single greatest financial component in health service delivery. How policy, planning, and management effectively align with this key resource will be integral to the sustainability of current business models to support the delivery of universally accessible healthcare. Paradoxically, despite being such a critical element of the healthcare system, HHR can sometimes be so pervasive as to be invisible. Indeed, HHR issues are often the elephant in the room when issues of healthcare reform are being discussed. Peeling away the layers leading to critical issues facing our healthcare system, such as wait times and lack of access to services, quickly reveal these to be largely HHR issues regarding the availability of healthcare professionals. Efforts to improve Canadian healthcare are often hampered by human resources challenges, including over- and under-supply of labour, changing skillset needs, and inflexibility in adjusting scopes of practice to meet shifting treatment standards. When addressed head on, there is increasing concern whether the supply and current mix of health professionals will be able to meet not only future health systems demand, but also population health needs more broadly.

This paper will make a case for the need for a pan-Canadian HHR Strategy, identify the key elements of such a strategy, and, finally, will suggest an implementation plan for aligning the key stakeholders (e.g., professional associations, regulators, educational institutions, accrediting bodies, federal/provincial/territorial health ministries, health professionals, and the public) in support of a strategy to address critical and systemic HHR challenges.

Three fundamental questions will be addressed:

1. What is the justification for a coordinated Canadian HHR strategy?
2. What would be the substance of a Canadian HHR strategy?
3. How might a Canadian HHR strategy be best implemented?

Central to effective HHR planning and healthcare service delivery that aligns with the needs of the population is a nationally coordinated strategy that is

collaboratively built and continuously informed by evidence. This strategy should include a common orienting framework which defines scopes of practice across professions and jurisdictions, in order to facilitate more consistent and valid measurements of the current supply while allowing the flexibility required to support the unique cultural, linguistic, and demographic needs of Canada's diverse populations. The success of this strategy would be highly dependent on engagement, contribution, and accountability from all stakeholders.

Framing these layers of the case we make for a pan-Canadian HHR strategy is an overarching acknowledgement that the system of health human resources is a complex, adaptive system. Complex adaptive systems are entities with multiple, diverse, and interconnected elements, often accompanied by feedback effects, nonlinearity, and other conditions that add to their unpredictability (c.f., Begun, Zimmerman, & Dooley, 2003). Disregarding this key feature of HHR has and will continue to result in the proposition of supposedly simple "solutions" to complex problems. Such solutions often result not only in inadequately addressing the problem they intend to solve, but also in a number of unintended consequences that reverberate through the system.

I. WHAT IS THE JUSTIFICATION FOR A PAN-CANADIAN HHR STRATEGY?

"The traditional approach to health human resources planning in Canada has relied primarily on a supply-side analysis of past utilization trends to respond to short-term concerns. For example, faced with shortages in a certain profession, jurisdictions tend to add training positions; faced with surpluses, they cut training positions; faced with budget pressures, they cut or reduce full-time positions. This approach has a number of critical weaknesses." (ACHDHR, 2007, p. 5)

HHR Highlights from the 2002 Romanow Commission, Building on

Values: The Future of Health Care in Canada. The Romanow report makes recommendations supporting the need for a coordinated approach to HHR planning. The report points to the need to:

establish strategies for addressing the supply, distribution, education, training, and changing skills and patterns of practice for Canada's health workforce.

Substantially improve the base of information about Canada's health workforce through concerted efforts...to collect, analyze and provide regular reports on critical issues including the recruitment, distribution and remuneration of health care providers. (Health Canada, 2009)

Making the case for the need for a pan-Canadian HHR strategy is not new. In its 2002 report, the Romanow Commission noted the importance of a need for a coordinated approach to HHR planning (Health Canada, 2009). In 2005, and again in 2007, the Federal-Provincial-Territorial Advisory Committee on Health Delivery and Human Resources (ACHDHR)¹ noted in its pan Canadian Strategy that: "The status quo approach to planning has the potential to create both financial and political risks, to limit each jurisdiction's ability to develop effective sustainable health delivery systems and the health human resources to support those systems" (ACHDHR, 2007, p. 5). In both this and other documents in the growing HHR literature, there are a number of indicators of problems in the healthcare system that are either implicitly or explicitly related to the misalignment of different elements of the system of health human resources in Canada. These can be categorized according to three key health workforce issues: supply, distribution, and mix.

Health Workforce Supply:

One of the key indicators is the waxing and waning of health human resources from shortages and surpluses and back for both the medical and nursing professions. With the advent of public health insurance schemes across the provinces in the late 1960s and early 1970s, there was a shortage of physicians and nurses to meet the needs of the now universally covered population of Canadian citizens. New medical and nursing schools were established, but in the short term, international recruitment helped to meet the needs; this recruitment was largely from the U.K. and Ireland. By the 1980s and 1990s, concerns over rising healthcare costs caused both federal and provincial governments to implement substantial cuts to healthcare spending. Often viewed as a significant driver of healthcare costs, this resulted in a decline in HHR in Canada.

In the early 1990s, a report prepared for the Conference of Deputy Ministers (CDM) of Health addressed issues regarding physician supply and demand in Canada – known as the Barer-Stoddart Report (1991). The context for this report was a perceived surplus of physicians, but as noted above, the broader context was of healthcare cost constraints. Although the report made 53 integrated recommendations covering a range of dimensions of the system of medical human resources, each of which were predicated on the others, little was implemented beyond reducing opportunities for international medical graduates (IMGs) and decreasing the number of undergraduate medical school positions by 10%.

The shift in HHR policy concerning physician human resources began to gain salience in the late 1990's, when medical professional associations, working groups, and other politically active organizations started to discuss shortages of physicians. Although much of the blame for this was levelled at the Barer-Stoddart recommended reduction in medical school enrolment, a robust analysis by Chan (2002) revealed that the greatest impact was the shift in the length of postgraduate training, from a one-year rotating internship for GPs to a two-year residency training program for family physicians. Regardless of the source of the problem, a self-funded working group (Task Force One), created by a consortium of Canadian medical stakeholder organizations, raised the alarm bells about a growing shortage of physicians and lobbied the ministers and deputy ministers of health in November 1999, to: 1) increase medical school enrolment by nearly 30%, raising the number of positions available to 2,000 by the year 2000; and 2) increase the number of residency positions so that there would be approximately 20% more residency positions than Canadian medical graduates.

There has been a similar fluctuation in the supply of nurses in Canada. Between 1980 and 1991, it was claimed that there was an increase in the number of nurses from 629.1 nurses per 100,000 of the population to 819.9 (Romanow, 2002). From 1991 onwards, the ratio of nurses decreased as a direct result of cutbacks to the healthcare system. Similar to what happened in medicine, there were cuts to nursing school enrolment and to nursing positions, and there was a reduction in full-time employment opportunities and an overall casualization of nursing labour (CNA, 2002). By 1997, nursing organizations were sounding a similar alarm as their physician colleagues, warning that Canada was headed for a major crisis with respect to nursing shortages (CNA, 2002). There are a number of factors that contributed to the claimed nurse shortage, including a reduction in the number of nurses graduating, many nurses leaving the profession due to poor working conditions, aging of the Canadian nurse population, changes in healthcare delivery, and inter-provincial competition for scarce resources (Romanow, 2002).

In 2002, the CNA released its report on nursing supply, noting: "Since [1997], there have been changes to the funding of the health care system and changes to nursing education. Governments have increased funding to educational institutions, and a variety of innovative programs have been introduced. Students are applying for and snapping up available places" (p. 78). The report recommended that, although the output from Canada's nursing schools was

¹ This is now the Federal/Provincial/Territorial Committee on Health Workforce (CHW).

expected to double from approximately 4500 in 2000 to 9000 in 2007, and there was an expected 1200 per year recruitment of internationally educated nurses (IENs), continued increases in the enrolment opportunities for nursing education programmes should reach 12,000 per year.

More recent projections of nursing human resources take various HHR assumptions more explicitly into consideration. The CNA (2009) report on the nursing human resources landscape, *Tested Solutions for Eliminating Canada's Registered Nurse Shortage*, provided new projections for how projected shortages need to take into consideration the changing health needs of the Canadian population. The report started first by projecting that if no policy interventions are implemented, Canada will be short almost 60,000 full-time equivalent RNs by 2022. Different policy scenarios were tested to see where the greatest strides toward reducing Canada's RN shortage could be made. These included: increasing productivity, reducing absenteeism, increasing enrolment, improving retention, and reducing attrition rates in entry-to-practice programs.

Back to the case of physicians, fast-forward 10 years or so and we are facing a situation of reported under- and unemployment of physicians from particular medical specialties. A report published by the Royal College of Physicians and Surgeons of Canada (2013) raised concerns that, "a growing number of specialist physicians were unemployed or under-employed" (RCPSC, 2013, p. 2), accounting for approximately "sixteen percent of new specialist and subspecialist physicians [who] said they cannot find work; [and] 31 percent [who] pursue further training to become more employable" (RCPSC, 2013, p. 2). Not surprisingly, issues pertaining to ineffective health workforce planning were reported as one of the three key drivers that contributed to these employment issues. As Andrew Padmos (2013), CEO of the Royal College, stated, "the issue of specialist unemployment is far too complex to be interpreted as a simple case of supply versus demand" (n.p.). Rather, he called this an "egregious failure in workforce planning," and stated that "a systemic problem requires systemic solutions." That is, the issue of un- and underemployed newly certified specialists should be seen as a symptom of the lack of coordinated medical and health human resource planning and feedback.

The issue of under- and unemployed medical specialists alone illustrates the complexity of the health workforce and the potential reverberating impacts that one aspect of the health workforce can have on others. Evans and McGrail (2008) had commented earlier on the myth and muddle surrounding the impact of the recommendations of the Barer-Stoddart report. The myth, that the report simply recommended cutting enrolment in medical schools, resulting in a severe shortage of physicians, comes full circle to again reveal the muddle: the lack of coordination in the production and utility of our health workforce. The warning by the ACHDHR regarding "the inherent risks if planning is done in isolation" (ACHDHR, 2007, p. 6), or the earlier warning by Barer-Stoddart that the integrated 53 recommendations should not be cherry-picked because it "could easily do more harm than good" continue to go unheeded (Evans & McGrail, 2008, p. 20).

So, traditional approaches to HHR planning in Canada have resulted in cycles of over and under supply, high turnover and attrition, and a lack of stability in the health workforce. They have also done little to address the persistent problems with health workforce distribution in alignment with population health needs.

Health Workforce Distribution and Misalignment with Population Health Needs

Among the inherent risks of continuing to plan in isolation are the unintended impacts on the mobility and distribution of the health workforce, which ultimately negatively affect access to services available to the population. Working independently to address such large-scale issues creates competition between jurisdictions for limited health human resources, and may inappropriately draw the health workforce from areas in need, resulting in severe shortages among vulnerable communities (ACHDHR, 2007, p. 1, 6; Task Force Two, 2006, p. 5; CRaHR, 2013). We focus here in particular on rural, remote, and Aboriginal communities, and concerns regarding access for minority language populations.

Access to care in rural and remote areas:

Shortages in rural areas of Canada have been reported to be twice as severe as in urban areas of Canada. A 2011 report from the Canadian Institute of Health Information (CIHI) indicates that only 9% of all active physicians were found in rural areas, while the 2011 census shows that 18% of the Canadian population, or more than 6 million people, live in rural areas (Statistics Canada, 2011; CIHI, 2011). Some of the reasons listed to explain why the doctor shortage is twice as severe in rural Canada, according to the Society of Rural Physicians of Canada (2008), include that: 75% of Canadian physicians live and practice in urban areas; many medical students are from large urban centres; all medical students attend medical schools located in large urban centres, and, while there, develop personal and professional relationships that make it difficult to leave these areas.

Recruitment, unfortunately, is only one challenge to health human resource planning in this regard. Retention of rural physicians is also a significant barrier to alleviating the uneven distribution of doctors in Canada. For example, according to Liu, Bourdon, and Rosehart (2013), only 31% of rural family physicians are retained in their communities 10 years post registration, compared to 50% of urban family physicians. When rural-trained physicians move to urban areas, the decision-making process in this transition can be quite complex, including family and personal factors (Hanlon et al., 2010). For instance, a CMA survey of 260 physicians who switched from rural to urban practice indicates that the most important reasons for doing so were educational opportunities for their children and the heavy work hours associated with rural medicine (Buske, 2009). More specifically, the number of hours associated with work as a rural GP is considered the most negative aspect of working in rural communities (Buske, 2009). Of greater concern

is the fact that most physicians who move to urban centres after rural practice have no intention of returning to their rural medical practice (Pong et al., 2007).

Analyses of physician migration statistics not only expose a pattern of rural to urban migration within provinces, but also between provinces. Indeed, the 2007 National Physician Survey indicated that 7% of rural physicians plan to move to another province/territory within the next two years (Chauban, Jong, & Buske, 2010). British Columbia and Alberta typically gain from the migration of physicians, for example, whereas the jurisdictions that typically lose are Newfoundland and Labrador, Quebec, Saskatchewan, Manitoba, and the Yukon (CIHI, 2007).

Strategies to address issues of distribution need to be multifaceted in nature because the causes of the problem are also multifaceted. Simply adding more doctors to the system overall does not address the problems with distribution that have left rural areas perpetually underserved (CFHI, 2012). A recent Cochrane review of the variety of strategies that have been adopted, including educational, financial, and regulatory approaches, found no well-designed studies to say whether any of these strategies are effective or not (Grobler et al., 2009).

Access to linguistic and culturally appropriate healthcare services:

Aboriginal communities (First Nations, Inuit, Metis) represent a large proportion of the population living in rural and remote areas of Canada, and the health disparities they face are significant (Health Council of Canada, 2013, p. 5). It is therefore no surprise that negative impacts resulting from shortages of healthcare providers in rural and remote communities are particularly acute among Canada's Aboriginal communities (Health Council of Canada, 2013, p. 5; ACHDHR, 2007, p. 1). According to a 2002 opinion poll conducted by the National Aboriginal Health Organization (NAHO), "43% of First Nations respondents said they prefer to visit an Aboriginal health care provider to a non-Aboriginal health care provider" (First Nations Centre, 2004, quoted in Assembly of First Nations, 2005, p. 4). Although governments have recognized the importance of developing a nationally coordinated and collaborative strategy to better align the needs of this population and include the production of Aboriginal healthcare providers in these communities (e.g., 2003 First Ministers' Accord on Health Care Renewal), the recent decision to discontinue the Aboriginal Health Human Resources Strategy is a significant setback.

Access to linguistically appropriate healthcare services is also stressed among Francophone minorities, where, in the case of Ontario, it is suggested that poorer health status includes a "significantly higher prevalence of chronic illness (63%) compared to the Anglophone and allophone populations combined (57.4%)" that may be due to a "lack of access to French-language primary health care services" (CRaNHR, 2013, p. 1). This is supported by the Federation des Communautés Francophones et Acadienne du Canada, who reported that "only 26% of Franco-Ontarians have access to hospital services in

French, yet a 2011 survey found that 75% of Franco-Ontarians find it important to receive such services" (CRaNHR, 2013, p. 1). The problem is that many do not have access to French language services in their community.

A nationally coordinated approach to production, deployment, and integration of the health workforce that aligned with the needs of these particularly vulnerable communities would play an important role in addressing the gap in health status between these communities and the majority of the Canadian population (First Ministers Accord, 2003).

Optimizing the Mix of Health Human Resources

Achieving the right mix of health professionals that align with population health needs is yet another complex challenge, in that it is multi-dimensional and linked with both supply and distribution challenges. The 2007 Framework for Collaborative Pan-Canadian Health Human Resources Planning highlighted that, "Canada's ability to provide access to 'high quality, effective, patient-centred and safe' health services depends on the right mix of health care providers with the right skills in the right place at the right time" (ACHDHR, p. 1). More recently, the Council of the Federation highlighted the importance of scopes of practice for healthcare transformation, identifying it as one of three priority areas for its Health Care Innovation Working Group.

HHR mix issues involving not only those within a profession – such as the balance of generalists and specialists and the need for different kinds of medical and nursing specialists – but also between professions. First, with respect to the mix within professions, the recent and rising concerns regarding under and unemployed medical specialists make clear the lack of coordination of their supply and distribution. In this case, the "lack of national (and few provincial) mechanisms to channel new graduates into the specialties where they are likely to be most needed rather than specialties most needed by teaching hospitals or most favored by students," and the lack of "integration between the education system that prepares providers and the health system that employs and deploys them" (Barer, 2013, n.p.), leaves us with a large and growing pool of highly skilled health medical specialists with precarious employment opportunities.

With respect to interprofessional mix, each uniquely defined skillset and the competencies of a given health profession are complementary; while there are scopes of practice defining a given profession, there is also overlap among these scopes of practice. How best to organize different health professionals into flexible models of care that support seamless, collaborative, patient centred care is a key goal. The problem arises when scopes of practice and associated models of care are organized on the basis of tradition and politics rather than population health needs. Scopes of practice are often politicized as a proxy for professional advancement, resulting in service provision organized

along health professional and not population health needs. As our healthcare system has developed, traditional scopes of practice have become enshrined in legislation, funding models, and labour contracts. These legal and historical legacies create a system that in some cases prohibits health professionals from practicing to their full scope.

In sum, some of the critical weaknesses documented in the 2007 pan-Canadian HHR report still ring true today. These include that HHR planning is based on past utilization trends, rather than emerging population health needs, and on traditional service delivery models, rather than considering new ways of organizing or delivering services to meet needs. There also continues to be insufficient communication and collaboration between the education system and the health system, resulting in the number and mix of providers being produced each year being influenced more so by academic preferences and priorities than population health or service delivery needs.

These persistent concerns reflect the lack of coordination and collaboration that is required between stakeholders to guide the appropriate production, mix, distribution, and integration of HHR into the Canadian healthcare system. These concerns also make clear both the complexity of the system of HHR, and that there are no simple solutions to effectively address health workforce issues at hand. Every action needs to consider the potential reverberating impact on the entire healthcare system, across jurisdictional and professional borders. Due diligence is required by all stakeholders to ensure that proper implementation, monitoring, and management strategies are in place, and to ensure that these actions produce the intended outcomes and goals that can be measured and evaluated to encourage sustainability and overall quality improvement. Commitment and accountability are required by all stakeholders to have them work together to see an action plan through to fruition. These are important elements of a coordinated Canadian HHR strategy.

II. WHAT WOULD BE THE SUBSTANCE OF A CANADIAN HHR STRATEGY?

Clearly a collective and coordinated approach to HHR planning, involving key stakeholders across all jurisdictions, is required to identify challenges and priorities for collaborative, tangible action that can be taken to achieve a more flexible and sustainable health workforce. The key elements of a pan-Canadian health workforce strategy that is informed by state of the art HHR research, including international precedents, would include:

- **Creating a consensus HHR framework** to reflect a common understanding of the key inputs, outputs, and goals/outcomes of an integrated HHR planning and deployment system to galvanize stakeholder support and foster collective action and evaluation.

- **Coordinating and enhancing an HHR evidence infrastructure** to support health workforce research and decision-making that align with the collective goals of the consensus framework.
- **Developing a coordinated HHR action plan with evaluation, governance, and accountability targets** that identifies the critical challenges that need to be addressed across the country, along with a set of short, medium, and long-term goals for each that will include measures and indicators to monitor the progress across jurisdictions.

Creating a consensus framework for HHR planning and deployment:

The purpose of designing a consensus framework for health workforce planning and deployment is to build a shared understanding using the common terminology of the “impact of a range of dynamic variables” (ACHDHR, 2007, p. 24), and to conceptualize or map out the relationship between different elements of a complex adaptive HHR system. The absence of a common language and agreement about key inputs, influences, and outputs makes collective action more challenging. A common understanding and language for health workforce planning also helps to minimize variability and strengthen our capacity to develop more accurate and comparable measures of key health workforce variables across sectors and jurisdictions.

The importance of a framework for coordinated planning was identified in the ACHDHR report. In an effort to better conceptualize health workforce planning and develop a better understanding of the impact of a number of dynamic variables, the ACHDHR highlighted the “Health System and Health Human Resources Conceptual Model” developed by O’Brien-Pallas et al. (2001) (see Figure 1). The core of this model was designed to help provide a guide for HHR policy makers and planners to recognize the need to align the health workforce with population health needs. It also begins to better take into consideration the dynamic interplay among a number of factors that have previously been conceptualized in isolation of one another, consistent with a system’s approach. This is primarily in the area of planning and forecasting. In addition, this model was envisioned as being used as “the basis for simulations which, in turn, can provide needs-based estimates of the health human resources required to achieve health, provider and system outcomes (ACHDHR, 2007, p. 25).

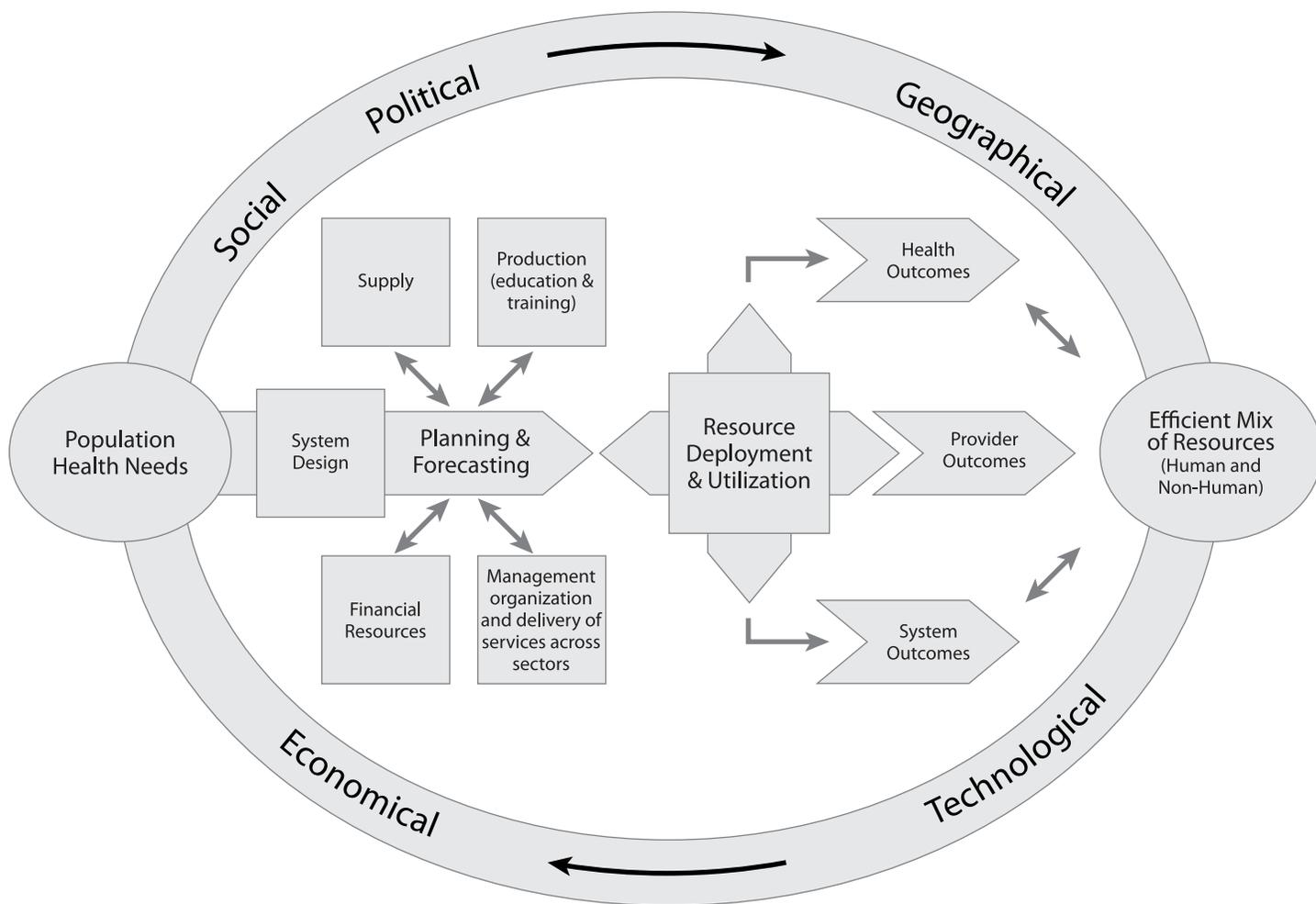


Figure 1 - Health System and Health Human Resources Conceptual Model
 Source: O'Brien-Pallas, Tomblin Murphy, Birch, and Baumann (2001), adapted from O'Brien-Pallas (1997).

Recognizing advances in the conceptualization of HHR planning since the creation of this model (e.g., Tomblin Murphy & MacKenzie, 2013), and also fleshing out the critical features of deployment, including the mix and distribution of HHR to an overall system (Bourgeault & Mulvale, 2006; Mulvale & Bourgeault, 2007; Nelson et al., 2014), the following model enhances certain elements of the 2001 O'Brien-Pallas et al. model (see Figure 2). Specifically, the planning and forecasting elements have been embellished to include: an explicit focus on productivity and activity rates, which vary within and between health professionals; technological as well as financial resources necessary for planning and forecasting; a requirement for enhanced data (see discussion re. evidence infrastructure below).

The first level of outputs from the planning and forecasting is a determination of an appropriate mix of human resources that now must be deployed. Thus, added to this model is a deployment and distribution module that has been embellished to include the micro/meso level influences of different

models of care; supporting healthcare infrastructure at the meso level (or its absence); and, at the macro level, economic factors at the (i.e., funding, financing, and remuneration of health professionals), and legal, regulatory, and accountability/liability influences. The model continues to be situated within a broader social, political, economic, and geographical context, but these contextual features are more fully fleshed out in terms of their specific input into planning and deployment.

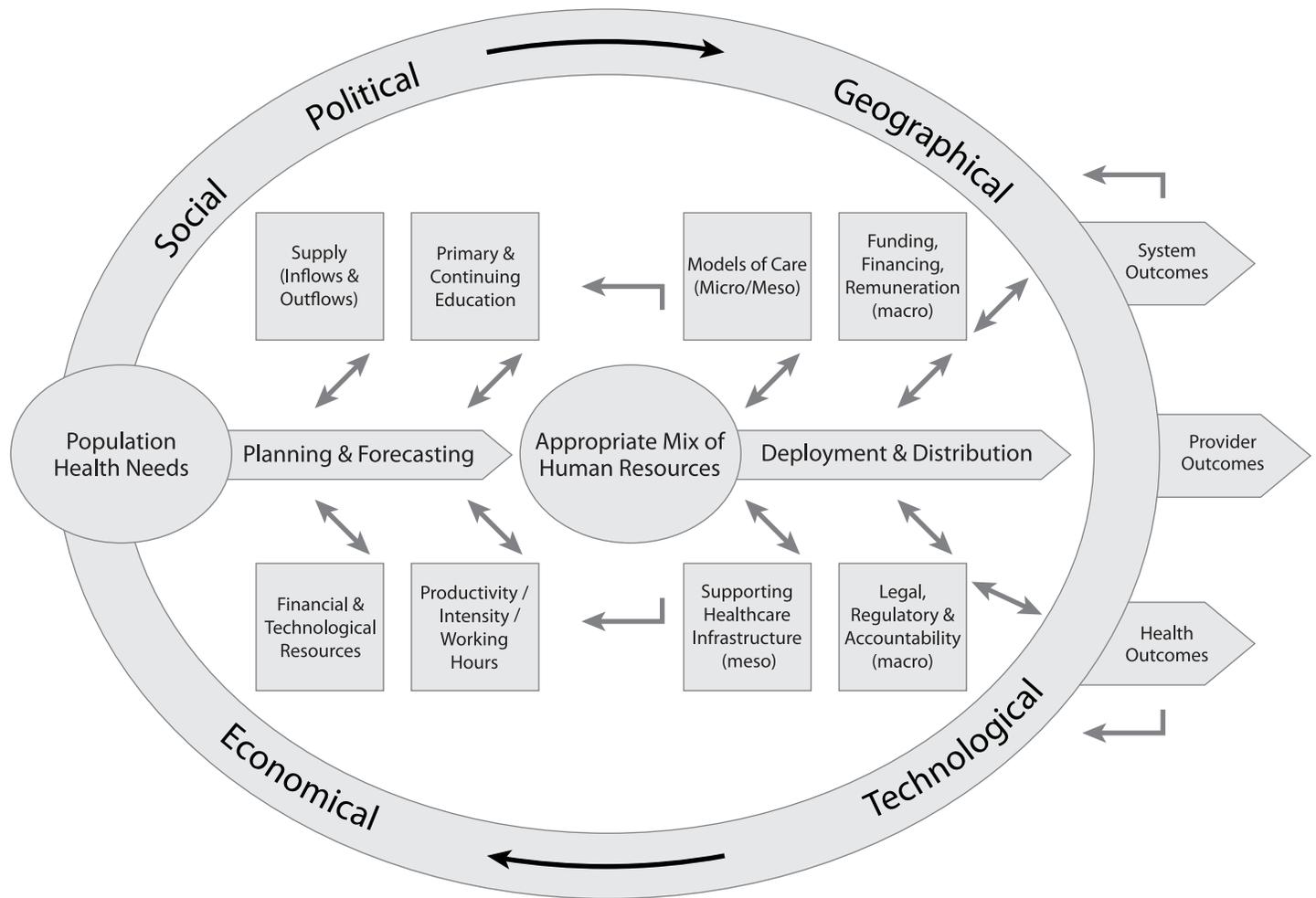


Figure 2 - A Revised Health Human Resources Planning and Deployment Framework

This model is presented as a heuristic device that could be revised according to consensus discussion amongst a range of stakeholders across Federal/ Provincial/Territorial jurisdictions.

Enhance and coordinate the HHR evidence infrastructure:

Once a common language and consensus mapping of the key elements of a system of HHR have been achieved, it would be strategic to enhance and coordinate the evidence infrastructure to support more informed HHR planning and deployment at each step. A coordinated national arms-length evidence infrastructure could also be a central mechanism in which this common language could be further developed, defined, measured, and evaluated for consistency and validity. A number of HHR stakeholders in Canada have suggested “a national centre dedicated to assisting with the

coordination of health workforce planning efforts across jurisdictions including a central location for collection and analysis of health workforce data that is independent and provides arms-length, evidence informed advice and cohesive reports to help address health workforce issues that have impact across jurisdictional boundaries” (IHWC Report, 2014, p. 7).

Such a coordinated effort could include: first, expanding the collection, liberation, linkage, and utilization of more comprehensive data on the health workforce and population health needs, thus fleshing out the integrated components of the framework; and second, developing tools and resources to coordinate, monitor, evaluate, and support more informed HHR decision-making, and guide health workforce policy and planning activities across the country.

An enhanced evidence infrastructure could build upon and coordinate the efforts of existing pan-Canadian organizations, including:

- **The Canadian Institute of Health Information**, which already has a

mandate to collect and/or act as the custodian of minimum datasets for a number of health professions. Existing national level collectors and custodians of health professional education data, such as the **Association of Faculties of Medicine of Canada**, the **Canadian Association of Schools of Nursing**, and accrediting bodies, such as the **Royal College of Physicians and Surgeons of Canada** and the **College of Family Physicians of Canada**, could become additional members of a coordinate data custodian and analysis consortium.

- The **Canadian Health Human Resources Network**, a research and knowledge exchange network established with funds from Health Canada and the Canadian Institutes of Health Research, which has as its central goals to coordinate and build capacity in HHR research and foster knowledge exchange. It does so through its virtual infrastructure, linking national experts, researchers, and policy makers supported by an online virtual platform of resources, tools, and evidence-based information to help guide decisions and research around critical and stubborn health workforce issues. A key role in a coordinated consortium for CHHRN would be to evaluate the efficiency and effectiveness of existing health workforce planning and delivery models, to help guide further improvements and strategies for improving measurements of population needs, health workforce productivity, and health outcomes.
- The **Canadian Foundation for Health Improvement**, which fosters better informed healthcare decision-making amongst a range of health policy actors, could take on a central role in fostering the scale up of HHR innovations through a range of existing knowledge exchange tools they have developed and modified over a number of years.

These institutes, associations, networks, and foundations could be organized into a broad-based HHR consortium that draws upon each party's relevant experience and expertise, and better coordinates an action plan that informs the planning and deployment of HHR across the country. Providing the strategic policy directions to this arms-length evidence consortium would be a link to the Federal/Provincial/Territorial Committee on Health Workforce.

Promising Coordinated Data Linkage Effort: The Geoportal of Minority Access to HHR

Although there are many innovative tools and resources available to help support health workforce planning and research in Canada, one of the most recent and ground breaking innovative tools developed is the Geoportal of Minority Health, developed by Dr. Louise Bouchard through funding by the Ontario Ministry of Health and Long-Term Care, to "identify knowledge gaps and improve knowledge about health and access to health services in Francophone minority populations of Ontario" in 2013-2014. The Geoportal of Minority Health is essentially a centralized geographic database comprised of:

- Socio-economic data associated with different linguistic variables
- Data on health professionals including their ability to provide services in official language minority populations
- National health surveys
- Points of health services

These enable spatial analysis of data and online mapping, which health workforce planners, researchers, and other potential users can use to "create, organize and present spatially referenced data and to produce plans and maps" (CHNET-WORKS!, n.d.).

This innovative tool can be used by a wide range of knowledge users, including "health workforce planners for minority health, LHINs, public health and community organizations as well as researchers" to help "improve knowledge of social and structural factors underlying health disparities that disproportionately affect minority populations" (CHNET-WORKS!, n.d.).

Although the geoportal is largely comprised of Ontario data, Dr. Bouchard hopes to expand the activities of the observatory at the pan-Canadian level, which would help health workforce planners address health workforce challenges among this particularly vulnerable population. There is certainly potential to also apply the tool to address other similar health workforce issues

What can a coordinated HHR effort achieve? Health Workforce Australia

Australia is a country facing similar issues and structural arrangements as Canada, including those related to working across jurisdictional, professional, and geographical boundaries to address similar large-scale issues, including maldistribution, shortages in some professions and specialties, and constricted professional roles (HWA, 2013a; HWA, n.d. a). In 2010, Australia adopted and launched a national health workforce agency, Health Workforce Australia, to help guide nationally coordinated action towards strategic long-term healthcare reform and innovation, in order to address the challenges of providing a skilled, flexible, and innovative health workforce that meets the healthcare needs of all Australians (HWA, 2013a; HWA, n.d. a). Health Workforce Australia recognizes the complexity of the healthcare system, in that issues cannot be addressed in isolation. It has endeavoured to meet these challenges through holistic and collaborative means that see the development of a sound evidence base to be able to inform national policy, and reform the formation of policy programs that facilitate reform, “in training, workforce, workplace and international recruitment and retention and by working across jurisdictions, sectors, health and high education providers, professions and stakeholder groups” (IHWC, 2014, p. 66).

Their approach has yielded promising tools. Health Workforce 2025, for example, was released by HWA to provide national projections of the health workforce numbers, as well as models to determine the effects of different policy scenarios for a range of health professions. In line with HWA's commitment to develop a sound evidence base, the purpose of these projections is to quantify the current health workforce, “and provide impetus and consensus for reform through the provision of evidence” (IHWC, 2014, p. 66). Moreover, the projections demonstrate a need for action that can be practically achieved through, among all else, collaboration. In addition to providing Australia's first major, long-term, national projections for doctors, nurses, and midwives, Health Workforce 2025 outlines why reform is essential. Without a “nationally coordinated reform Australia is likely to experience limitations in the delivery of high quality health services” (HWA, 2013b, p. 7). Health Workforce 2025 also presents “alternative, more sustainable views of the future, based on policy choices available to government” (HWA, 2012a, p. iii). Moreover, “to address the findings of Health Workforce 2025, a clear set of actions is needed. The work to be undertaken will require a coordinated national approach involving governments, professional bodies, colleges, regulatory bodies, the higher education system and training providers” (HWA, 2012b, p. 3).

The HWA also developed a strategic plan in consultation with stakeholders as a “three-year blueprint that outlines how HWA will build a sustainable health workforce” (HWA, 2013c, p. 3). It describes “the programs that HWA will undertake to achieve the three objectives set out by the strategic plan” (HWA, n.d. b): 1. “build health workforce capacity by supporting more efficient and effective training and migration pathways to ensure the workforce required is delivered as efficiently and effectively as possible” (HWA, n.d. b); 2. Boost health workforce productivity through technological advances and evidence-based policy and programs, new workforce models, new roles and the realignment of existing roles to ensure the workforce is deployed in the most effective way and that health workers are able to use the full range of their skills and competencies (HWA, n.d. b); and 3. Improve the geographic distribution of the health workforce and clinical education opportunities, as well as its distribution across professions, specialties and healthcare settings (HWA, 2013c, p. 10).

Developing a nationally coordinated HHR action plan:

“Actively pursuing a collaborative action plan will also help ensure that HHR planning is a strategic priority in all jurisdictions and is appropriately resourced, and that health system decisions with HHR implications made in one jurisdiction do not have unintended consequences for other jurisdictions” (ACHDHR, 2007, p. 12).

Guided by the needs of policy decision-makers, a consensus framework of the various inputs/outputs and outcomes of a system of HHR, and an enhanced and coordinated consortium of HHR stakeholders, the development of a nationally coordinated action plan is critical. This action plan will identify the top critical challenges that need to be addressed across the country, and establish a set of goals associated with each of these challenges – including common definitions, baseline measures, and indicators that can be used to inform an evaluation framework – to help track, monitor, and evaluate the progress across the country towards achieving these common goals. Most importantly, it will identify the key actors who will take the lead initiative in each of the action items with accountability targets. That is, a crucial component required in a national health workforce action plan/strategy would be responsive and accountable governance strategies, in order to more effectively guide appropriate actions that align with national goals.

There would, of course, be synergies between these different elements – adjustments to the consensus framework in response to system feedback would be important. The nationally coordinated arms-length infrastructure will help coordinate, monitor, evaluate, and guide health workforce policy and

planning activities across the country, and report on the progress of a national plan – the necessary basic foundation upon which to effectively and efficiently coordinate and implement health workforce activities across the jurisdictional and professional boundaries in place. A responsive national health workforce strategy is one in which both intelligence strategies and governance strategies work together to inform and implement appropriate responsive actions towards health workforce issues.

III. HOW MIGHT THE STRATEGY BE IMPLEMENTED?

*“The success of the framework and the action plan depends on the **commitment of all involved** in making the transition from the status quo to a more collaborative approach. The critical success factors to applying the framework and building that commitment are:*

1. *Appropriate stakeholder engagement*
2. *Strong leadership and adequate resources*
3. *Clear understanding of roles and responsibilities*
4. *A focus on cross-jurisdictional issues*
5. *A change in system or organizational culture*
6. *Flexibility*
7. *Accountability”* (ACHDHR, 2007, pp. 12–13)

The recommendations regarding engagement and coordinated action still ring true today, but in the words of a colleague at the recent Physician Employment Summit: *“Let’s all agree on where we need to go, but let’s not try to boil the ocean”* (Danielle Frechette, 2014, personal communication). That is, although we agree with the above statement by ACHDHR, we need to be aware of some key factors that can have a profound influence on implementation. These factors include the barriers and limitations to implementation, and the role and value of evaluation, in promoting commitment, engagement and accountability, which is required to promote an effective, sustainable, national strategy. To this end, we argue that efforts to enhance the likelihood of success of a national strategy must start during the planning and design phase, and should focus on mediating obstacles and creating opportunities to promote commitment, engagement, and accountability (Wholey, Harry, & Newcomer, 2010, p. 26).

Many of the limitations related to implementation of national strategies are related to political and financial constraints, as well as competing ideologies, values, and goals among various stakeholders and interest and advocacy groups (Wholey, Hatry, & Newcomer, 2010). Understanding these barriers and limitations will help guide strategies for addressing them, and it is in this context that we argue that establishing common goals and values among all stakeholders plays a central role in the ability to effectively implement a national health workforce strategy, and moreover, that an evaluation

framework would help promote the ongoing engagement, commitment, and accountability required to effectively build and sustain such a strategy.

The fragmented nature of health workforce planning and the competing values create significant barriers in establishing a common vision within and across jurisdictional and professional boundaries. Yet, establishing this common vision is key to promoting the ongoing, collaborative engagement and coordination required to support a national strategy. A key influence that will bind this common vision is establishing a common value which can be measured in the strength of the evidence produced, in the credibility to intended users, and, especially, in the use of the information to improve policies and programs (Wholey, Harry, & Newcomer, 2010, p. 4). As discussed in the previous section, Australia’s national health workforce agency plays an important role in the progress and advancements towards healthcare reform, through consultative and collaborative means that see the development of a sound evidence base as informing health policy and reform centred around a common vision, *“to drive change, collaboration and innovation to build a sustainable health workforce that meets the healthcare needs of all Australians”*; this base is built around common values shared by all stakeholders, which include innovation, accountability, respect, and collaboration (HWA, 2013c, pp. 6–7). There is also much to be learned from Health Workforce Australia in this regard, particularly with respect to their three-year action plans with their accompanying evaluation frameworks and progress reports.

Thus, it is critical that a strategy be informed by research, insights, and precedents, both locally and internationally. Indeed there is a wealth of knowledge to be garnered internationally with regard to effective and innovative approaches to health workforce planning and deployment that can be considered in terms of developing an efficient, collaborative, national health workforce strategy in Canada. Initiatives that bring together international health workforce stakeholders, such as the International Health Workforce Collaborative (IHWC), provide valuable opportunities for countries to develop a strong knowledge base with which to further develop or strengthen their own national strategies for health workforce planning.

Conclusion

It is clear that many of the issues related to health workforce supply, mix, and distribution can be addressed through a pan-Canadian system-based, collaborative strategy for health workforce planning. Despite the promise of a coordinated pan-Canadian HHR strategy, at present there are still too few strategies, mechanisms, or infrastructures in place to coordinate, monitor, measure, inform, or guide the production, distribution, and utility of the Canadian health workforce (Barer, 2013; Assembly of First Nations, 2005, p. 4). As a result, Canada’s healthcare system continues to be riddled with health workforce issues, persistently failing to meet the needs of the population in

terms of quality and access to care, and the needs of the health workforce in terms of appropriate integration, scopes of practice, and quality of work-life (RCPSC, 2013, p. 4; Barer, 2013; RCPSC, 2014). Given that the health workforce is the most critical element of health systems, it is time to devote the appropriate time and resources to generating the knowledge needed to better address these concerns in a way that enhances patient care and population health.

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