KPMG

Reimagining health workforce planning in Canada

Global inspiration for a new path forward

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Introduction

The objective of health workforce planning is to create a responsive equilibrium between population health needs and the capacity of the health workforce to deliver care based upon those needs, resulting in improved health outcomes. Planning for the right supply, mix, and distribution of the health workforce in a manner that is responsive to evolving population health needs has been a continuous challenge in Canada and countries across the globe for decades. Looking ahead, by 2030, healthcare worker demand will rise to 80 million globally, accompanied by a shortfall of 18 million workers,[1,2,3] reinforcing the need to establish domestic supply approaches.

In the last few years, Canada has experienced unprecedented strain in balancing its response to the COVID-19 pandemic while ensuring essential service continuity, which has included the shift to new models of care and ways of working out of necessity. This strain has accelerated a discussion regarding Canada's longstanding health system structures that continue to put pressure on the health workforce, and in tandem exacerbate issues related to access to appropriate, high-quality care. Canada's healthcare workers have persevered in the face of personal and family risk, uncertainty, long work hours due to resource constraints, and loss. Consequently, dramatically increasing rates of mental health concerns and burnout among healthcare workers have emerged:

- In 2020, 33% of healthcare workers in Canada reported fair to poor mental health.[4] Approximately 60% of nurses reported that they would leave their jobs within the next year, while over 25% reported their intentions to leave the profession.[5]
- By the spring of 2021, burnout rates across physicians, nurses, and other healthcare workers in Canada soared to greater than 60%, particularly for those on COVID units, in critical care, emergency departments, and long-term care.[6]
- In Ontario, 59% of registered practical nurses reported coping poorly, while 86% reported work had increased significantly.[7] Simultaneously, 75% of overworked nurses reported feeling the potential for medical errors had increased.[7]

The health workforce represents more than 70% of direct healthcare costs in Canada, which was approximately $175 billion in 2019.[8,9] In a fiscally constrained system, planning for the right number and skill mix of healthcare workers is increasingly important given the growing demand for services and continued challenges with access to care. A lack of concerted action on addressing the systemic structures related to workforce planning will continue to place economic constraints on the Canadian healthcare system, drive worsening health and wellness of our healthcare workers, and ultimately, jeopardize quality of care for patients.

As health workforce capacity challenges continue...

Demand for services will continue to grow

- Canada is expected to see 68% growth in its population aged 65 and older by 2037.[10]
- A 71% increase in demand for continuing care services for seniors between 2011 and 2026 is projected, inclusive of both paid and unpaid caregiving.[11]
- The annual cost of long-term care will triple from $69 billion in 2014 to $188 billion in 2050 – by 2035, an additional 199,000 new long-term care beds will be needed to meet demand for services.[12,13]
- By 2041, the annual cost of mental illness in Canada is expected to reach $307 billion.[14]

Inadequate supply, mix, and distribution of healthcare workers will perpetuate equitable access challenges

- Between 2019 – 2028, Canada expects to see a deficit of 31,500 family physicians and general practitioners, and 37,000 registered nurses.[15,16]
- Only 8% of physicians in Canada practice in rural communities despite the fact that almost one fifth of the Canadian population is rural.[17]
- While there is a high need for rehabilitation services among aging adults, 23% of which live in rural areas, availability of community-based physiotherapy in these communities is low.[18,19] Moreover, outpatient physiotherapy is mainly funded by insurance or out-of-pocket payments, which creates access challenges for those who do not have the ability to pay.

What are the most prevalent workforce challenges today?

Contemporary health workforce planning encompasses much more than the policies and actions that address the supply, mix, and distribution of healthcare workers to meet population health needs. The pandemic revealed the need to view the capacity of the health workforce through a much more holistic lens, whereby elements including the health of the health workforce and equity, diversity, and inclusion (EDI) emerge as key considerations.

With these lenses in mind, a post-pandemic future should aim to address the systemic structures that led to the health workforce crisis enabling a workforce that is responsive to changes in population needs and resilient against disruption. This involves bringing governments, health system leaders, educational institutions, disciplines, policymakers, and patients together to redesign a system that better serves the needs of Canadians without putting continued strain on workers. Listed below are a set of priority challenges requiring collaborative action and reform:

Canada's existing health system structures and policies are not well-aligned to the modern care needs of Canadians. Canada's healthcare system was established in a time when care delivery was focused on acute care needs. The legacy of this system exists today, at a time when patients rely on a variety of healthcare workers to provide services outside of acute care settings.[20] As care shifts to the home and community, there is an opportunity to better align the appropriate funding structures to support the models of care associated with each. For example, the existing fee-for-service physician compensation model is associated with independent practice rather than participation in teams.[21,22]

Provinces and territories have fragmented data and insufficient analytical capability. Canada is lagging behind comparable OECD countries including the US, UK, and Australia on workforce data and digital analytics.[23] Players in government, education, accreditation, regulation, and practice collect various forms of data reflecting workforce activities which should align to support utilization and comparability for decision making.[9] Notably, little demographic data is collected on our healthcare workers which is a barrier to creating a diverse workforce that is reflective of all of Canada's populations. If Canada is to respond to the Truth and Reconciliation Commission calls to action on recruitment and retention of Indigenous healthcare workers, maintaining a transparent count is critical to increasing this complement.[8]

Planning in disciplinary silos can result in misalignment of resource outputs to needs. Each province, territory, and federal jurisdiction generally plans for their health workforce independently, while each discipline plans independently from others. A siloed planning approach does not fully recognize and incorporate elements of the integrated care models that are encouraged as best practice. For example, there is a need to better understand how technology advancements and overlapping scopes of practice may shift how roles are optimized and/or generate the introduction of new roles, which has implications for educational institutions and collaborative learning environments. Moreover, siloed disciplinary planning focused solely on supply has the potential to drive higher costs related to workforce training and management.

Absence of a centralized structure to support pan-Canadian planning diminishes accountability. At the system level, countries that have a coordinated, centralized, and accountable structure responsible for particular elements of workforce planning (such as standardizing the collection, reporting, and dissemination of data, or collectively driving practice standards across disciplines) tend to demonstrate comparably better workforce intelligence capability.[9] An increase in performance measurement and public transparency on defined metrics can better incentivize health systems to track progress and be responsive to implementing changes required to address human resource challenges.

Insufficient focus on EDI preserves inequities related to workforce opportunities and patient access. For example, medical school admissions policies tend to favour students of higher socioeconomic status while admitted medical students are less likely to be black, Indigenous, or have grown up in a rural setting.[24] Women in medicine also face disproportionate rates of discrimination, less opportunity for advancement, and difficulties in work-life balance with respect to familial obligations.[25] Discrimination that creates barriers to entry and inclusivity also exists across other disciplines, including nursing and pharmacy.[26,27] A lack of inclusive curriculum in learning environments contributes to insufficient preparedness among healthcare workers to meet the needs of diverse population groups, consequently impacting appropriate access to care.[28,29] Diversity among healthcare professionals is essential to supporting inclusive care delivery that is culturally sensitive.

Limited holistic wellness support and promotion has perpetuated burnout. Canada's healthcare workers are facing high rates of burnout and psychological distress amid the pandemic. Over 60% of Canadian doctors, nurses and other healthcare professions reported severe burnout by spring 2021.[6] Issues with inadequate staffing ratios, growing workloads, and long work hours, much of which pre-dated the pandemic, have exacerbated mental health concerns. These factors, in turn, impact quality of care by way of increased turnover, absenteeism, and presenteeism, and have significant costs on the health system. For example, in Canada, it is estimated that physician burnout alone costs the healthcare system $213 million annually between early retirement and reduced clinical hours.[30]

Approaches to workforce planning should consider the realities of Canada's changing system. Planning efforts tend to be siloed and focused on physicians and nurses, and should instead account for new and emerging models of care that leverage the full range of healthcare workers, including families and carers. Doing so could facilitate better management of workloads while enabling optimal scope of practice and improved access to high-quality care.

What does Canada's future workforce look like?

The COVID-19 pandemic accelerated innovation through the quick adoption of new technologies and workflows. Pressures for change, as a result, have been exacerbated by the pandemic, and several trends that were already shaping the future of care delivery are increasingly relevant.

Future models of care will reflect a view of how governments, organizations, healthcare workers, and payers view the needs of patients and the resulting implications for care. In conjunction, the ways in which our health workforce is recruited, trained, deployed, and managed will evolve. Planning for the workforce of the future goes beyond the traditional elements of supply, mix, and distribution – looking at the holistic needs of both patients and healthcare workers will be essential for systems striving to achieve the Quintuple Aim for healthcare improvement, which incorporates advancement of clinician well-being and health equity as key elements to better health, in addition to improved patient care, outcomes, and costs.[31]

Imagine a healthcare worker that is…

Digitally Enabled. To accelerate efficiencies through capacity-building, healthcare systems will benefit from adopting digitally-enabled models of care. It is anticipated that nearly 40% of healthcare tasks could be automated by 2030, unlocking more time for care.[3] Curricula and on-the-job training programs will require significant investment in growing a digitally-skilled workforce and informing appropriate practice guidelines. The demand for digitally-enabled services is also growing. In 2020, 42% of Canadians surveyed who had experienced virtual care during the pandemic expressed preference for a virtual first point of contact with their physician moving forward.[32] Further, nearly 80% of Canadians are interested in accessing their personal health information electronically, and 82% prefer electronic prescriptions.[33]

Part of an Interdisciplinary Healthcare Team. Alberta has attached over 75% of its residents to its 41 Primary Care Networks, while approximately 25% of Ontarians are attached to a Family Health Team.[34,35] Although adoption of group practices and/or team-based care models varies across Canada, more Canadians are expecting seamless coordination across the providers delivering their care. High-performing healthcare teams help to establish a more comprehensive, coordinated, and effective system of care designed around the patient's needs.[36] Team-based care is beneficial for patients with chronic care conditions, can improve patient wellness and continuity of care, increase capacity to provide same/next day access and after-hours services, and offset emergency care costs.[37]

Agile and Adaptable. Agile health workforce planning will help develop a sustainable workforce that can withstand future threats and disruptions like the COVID-19 pandemic. Developing an agile health workforce means building the capacity to enable practice at optimal scope, and enabling task shifting models that are responsive to evolving population health needs. Such role optimization may be achieved by embedding interprofessional training models into curricula across disciplinary programs. However, healthcare workers will need to have access to team-based care models, supported by policies and funding, that permit entry into teams upon transition to practice. Effective workforce shaping will require health system leaders to plan for regular and surge capacity scenarios, incorporating workforce upskilling, ethical collaboration with internationally educated counterparts, and deployment of health workers between jurisdictions or medical wards.[38]

Patient- and Caregiver-partnered. Patient engagement improves outcomes and decreases costs.[39,40] In 2018, 7.8 million Canadians aged 15 and older were caregivers and 96% of long-stay home care recipients had an unpaid caregiver.[41,42] Providing care to aging parents is costing Canadians around $33 billion in direct expenses and unpaid leave from work.[43] In 2013, Nesta, an innovation foundation in the UK, estimated that the NHS could save £4.4 billion annually by mobilizing patients, families, and communities in care.[44] Policies that recognize and formalize the role and commitment of caregivers have the potential to facilitate decreased institutionalization of those requiring care and, therefore, reduced health system costs.[45]

An Ambassador for the Advancement of EDI. The benefits of advancing EDI in the healthcare workforce are well documented, including improved outcomes and access to care for patients, and improved workplace experiences and retention for healthcare workers.[46] With People of Colour representing 36% of the Canadian population by 2036, the need to address EDI in the workforce is clear – healthcare workers must reflect the populations and communities they serve.[47] Neglecting EDI in workforce planning threatens to worsen health disparities in minority populations, and hamper innovation and openness to change in the healthcare sector.[48] Healthcare leaders have advocated for new strategies to amplify EDI, including tailoring recruitment practices based on community needs and addressing antiquated educational programs that overlook cultural competencies.[49,50,51]

Resilient, Supported, and Thriving in Practice. Improving the well-being of healthcare workers was only widely recognized as a critical enabler of better health less than a decade ago, with the recommendation of the Quadruple Aim, which has since expanded to the Quintuple Aim.[52] In light of the dire mental health consequences experienced by healthcare workers during the pandemic, a collective push toward the development of healthcare worker and trainee wellness frameworks has occurred.[53,54] Implementation of wellness programs within healthcare organizations is anticipated to increase, which may require the future workforce to participate in resilience and well-being training. It is time that we now consider wellness as a core pillar of workforce planning in order to ensure safe staffing, enhance work-life flexibility, foster health-promoting environments, and importantly, view our healthcare workers as humans with needs too.

Empowered to Drive System Change. The future of care delivery will require healthcare professionals that are engaged in continuous improvement and that think and act through a lens of health system science—the study of how care is delivered, how healthcare professionals work together to deliver that care, and how the health system can improve patient care and healthcare delivery.[55] This requires a deep understanding of the system that healthcare workers operate within, including how the historical confluence of systemic, structural, political, and cultural processes have led to the health system as it stands today. Igniting meaningful transformation across the health system begins with instilling a culture of continuous improvement. For example, a key component of Canadian physician competency is founded upon the CanMEDS role of the Health Advocate – developing the capabilities to influence system change that seeks to improve the health and well-being of disadvantaged populations.[56]

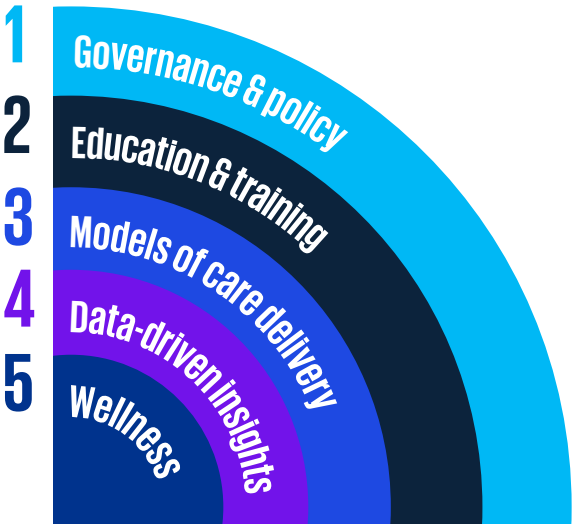
Drivers of effective health workforce planning

What we've learned from our insights in Canada and across the globe is that there is no one jurisdiction that gets all aspects of workforce planning "right". That is, in part, attributable to the reality of the matter at hand – planning for the years ahead will often be outpaced by a landscape faced with accelerating rates of change. Importantly, however, looking beyond the short-term requires an approach that is not only focused on increasing supply.

Forecasting exercises will only go so far if the right conditions to support implementation of holistic planning efforts do not exist. Our global experiences point to the following drivers to support more successful implementation of planning approaches. These drivers cannot exist in isolation – they are not mutually exclusive from one another.

From the system-level, reconsidering clear and accountable governance and policy measures has direct effects straight down to the front lines of care delivery to attract and retain high quality staff to work in settings and models of care that are responsive to population health needs.

Figure 1



1

- **Policy objectives and health system goals jointly support** recruitment and retention practices
- Payment models **encourage teamwork across professionals** while broader funding structures support **delivery of appropriate essential services** to Canadians
- **Cross-sector collaboration** involves trusted relationships and joint action between policy makers, educational institutions, professional bodies, and care providers
- **Governance models** include integrated decision-making structures involving policy, education, and regulatory oversight with clear accountability
- **Strong leadership** that is people-focused; dually committed to the health of the health workforce and patients alike
- Investment in making professions in need **more attractive**

2

- **Recruitment and curriculum** practices are **inclusive**, **equity-focused**, and uphold social accountability mandates
- Agile workforce shaping is supported through a **team approach** to curriculum
- **Digitally enabled** workforce is prepared to manage new and emerging technologies to accelerate efficiencies (e.g., digital front door, segmentation of populations, etc.)
- EDI-focused cohorts are prepared to deliver **culturally appropriate care**
- Professional schools have the **ability to adjust curriculum and training seats in a responsive manner**
- **Domestic capacity** is built and barriers are broken down to advance foreign-trained healthcare workers into practice

3

- Planning scenarios encapsulate the **patient-centric models of care** we want to advance
- Workers are able to **adapt and ably move across delivery models** in order to provide a range of services through task shifting and practice at optimal scope
- Health system planners capitalize on **strategic technology initiatives** and leverage centralized staffing models to **enhance employee productivity**
- Health workforce is empowered to explore opportunities to **collaborate, share knowledge**, and continuously work toward **developing innovative models of care**

4

- **Data collection** is standardized, regulated, transferrable across jurisdictions, and used appropriately to enable national comparability – **strategically integrated and leveraged** to inform workforce planning
- Workforce planning models leverage **quantitative and qualitative inputs** that shape future models of care around need
- Workforce data quality and utilization is improved and enables workforce productivity
- **Data collection facilitates more inclusive planning** to ensure healthcare workers are reflective of the populations they serve

5

- **Unnecessary administrative burden** is reduced and strategies to optimize workload are implemented to support improved work-life flexibility
- Top-down and bottom-up approaches are established to drive a **positive organizational culture**
- Programs and standards to support and promote a **resilient health workforce that is physically** and **psychologically safe** are developed
- A sense of **inclusion** and **belonging** in learning and practice environments is fostered by leadership

Considering how care delivery is going to change in the future, how healthcare workers will collaborate in teams, how tasks will be redistributed, and how technology and automation will change existing roles, leaders and decision-makers need to reframe their thinking around planning and deployment of the most appropriate skill mix. Most critically, modern approaches to planning should also include a holistic view of the healthcare worker. Comprehensive wellness strategies must be in place to prevent burnout, absenteeism, and presenteeism – each of which can impact productivity, access, and quality of care.

Leading practices from around the globe

While unique to their local health system contexts, there are many examples of jurisdictions that have taken approaches to enhancing their planning efforts. Many of the examples highlighted have faced similar challenges that Canada has experienced.

These jurisdictions provide tangible examples of the drivers at play, together facilitating an environment that encourages meaningful action in communities, from the system-level through to the practice-level.

The examples provided are plotted against each of the five drivers. These jurisdictions are not intended to provide a collectively exhaustive list of practices that address all drivers, however, they are meant to provide inspiration for the practical application of solutions.

Figure 2

	Governance and policy	Education and training	Models of care delivery	Data-driven insights	Wellness
Northern Ireland *Medical & Dental Training Agency*	■	■	■		
Australia *Australian Digital Health Agency*	■	■	■		
United States *Kaiser Permanente School of Medicine*	■	■		■	■
Netherlands *Advisory Committee on Medical Manpower Planning (ACMMP)*	■	■	■	■	
Netherlands *Buurtzorg Community Care Nursing Company*			■		
New Zealand *New Zealand Ministry of Health*	■		■	■	
Germany *Federal Ministry of Health*	■		■		
Canada *Humber River Hospital*		■	■	■	
United States *Baltimore Alliance for Careers in Healthcare*	■	■			
United States *Mount Sinai Health System*					■
Canada *Ontario COVID-19 Lab Testing Strategy*		■			■

Northern Ireland: Retaining tomorrow's healthcare leaders through compassionate training

Organization: Northern Ireland Medical & Dental Training Agency (NIMDTA)

Description: The VALUED strategy aims to facilitate the retention of doctors-in-training within Northern Ireland's home and social care systems and increase workforce engagement. Over 20 initiatives have been developed using the VALUED strategy, which includes six key components (see Figure 3 (VALUED Strategy table)). Together, the trainee initiatives designed and undertaken by NIMDTA provide a clear example of a system-level approach to facilitating enhanced retention of medical trainees and new graduates during critical career transitions. NIMDTA has created a lateral culture, in which leadership is attentive and responsive to trainee needs, and where the trainee voice is heard.

Objective(s):

- To address key issues top of mind for physicians in Northern Ireland, including increased workloads, working hours, work-life flexibility, and a disconnect between trainees and those in leadership roles in hospitals and trusts.

Main approach elements:

- **Leadership and learner alignment:** The ADEPT program aims to develop effective medical leaders, generate interest in medical leadership roles, and cultivate a supportive leadership model responsive to trainee needs. Through an apprenticeship model, trainees are provided an opportunity to work alongside senior leaders in clinical organizations and receive formal leadership and management training.[57]
- **Compassionate leadership model:** NIMDTA developed an induction program for new graduates entering clinical positions during the COVID-19 pandemic. Flexible completion of digital orientation, welcome packs, a buddy system, and practical and psychological support were central features of the program.

Outcomes:

- ADEPT program: Quantitative pre- and post-surveys from program participants demonstrated increased awareness of leadership styles, increased capabilities in relationship management, and increased ability to devise improvement strategies.[58]
- Compassionate leadership model: Feedback surveys indicated trainees had high satisfaction with the induction program (83%) and high feelings of being valued by NIMDTA (82%).[59]
- Effective leadership of clinical supervisors has been previously documented to be strongly associated with greater fulfilment and lower burnout rates among those they lead.[60] Future outcomes from the NIMDTA's trainee programs may support these findings.

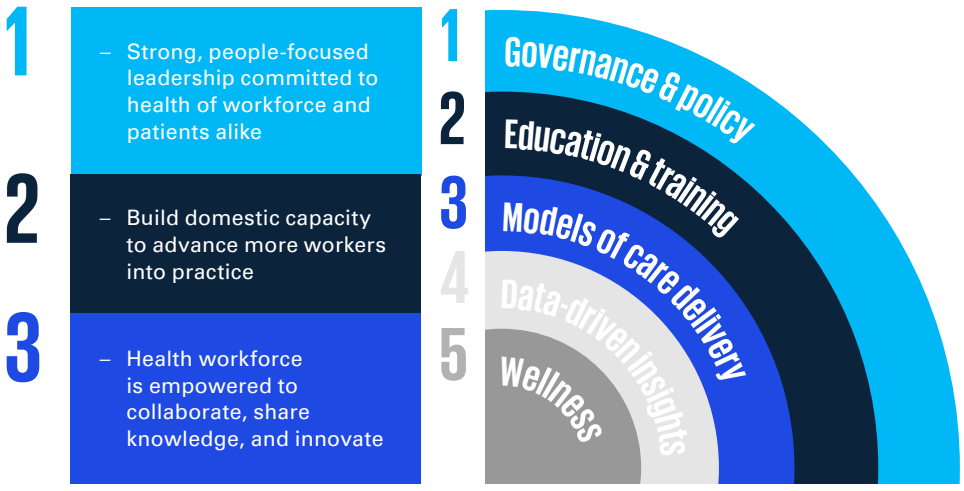
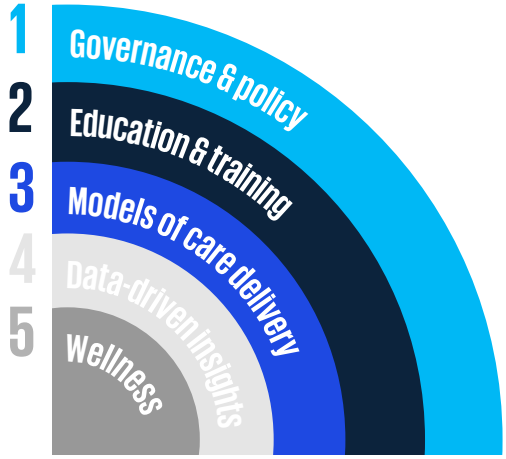


Figure 3

VALUED Strategy
Voice is listened to
Applaud and acclaim success
Life-work balance & support
Up to date and high-quality training
Enhanced learning opportunities
Distinctive training

Source: Northern Ireland Medical & Dental Training Agency. Retrieved from: https://www.nimdta.gov.uk/valued/

Australian Digital Health Agency: Preparing the workforce to thrive in digital transformation



Organization: Australian Digital Health Agency (ADHA) (established in 2016 within Australia's national Department of Health)[61]

Description: In 2019, ADHA engaged in a multi-professional, multi-stakeholder collaboration to create the National Digital Health Workforce and Education Roadmap – the purpose of which was to support Australia's health workforce to confidently use digital technology to deliver higher quality care and outcomes through building digital health capability and leadership.[62] The roadmap provides a framework from which health sector leaders can build an understanding of digital capability requirements for their workforce.[63] Importantly, the roadmap also provides a view into anticipated application of digital health technologies that will impact the workforce and educational requirements in the short- to medium-term.[64]

Objective(s):

– The roadmap is intended to assist the workforce in confidently using digital technologies in healthcare settings to build capability and leadership.

Main approach elements:

– **Evolving competencies:** The roadmap highlights three strategic horizons that contemplate the workforce and education shifts that will be required to facilitate successful adoption of digital health technologies in an evolving healthcare landscape over the next decade (Figure 4).[64] For example, Horizon 2 (now to 2027) focuses on scaling adoption of emerging technologies such as artificial intelligence and advanced robotics. Leveraging this technology to enhance productivity and meet contemporary care needs will involve new ways of working, shifts in scope of practice, and introduction of new roles.[64]

– **Specificity by role and setting:** The roadmap also acknowledges that there are different healthcare professional roles that require different digital capabilities in different settings – from the nurse at the bedside to cyber security experts. Digital profiles are created to support the development of action plans for each.

Outcomes:

– ADHA highlights the benefits emerging out of this horizon for both patients and healthcare workers, including interoperability that will support clinical decision-making in real time, minimization of redundancies, and improvement of diagnostic and treatment options due to the scaled adoption of digital health technologies.[64]

– Although outcomes have not yet been published, steps for implementation of the roadmap include development of Capability Action Plans (CAPs), which will detail accountabilities of all stakeholders in achieving the vision of each Horizon. The process to do this will be developed in collaboration between government, educational institutions, accreditors, clinicians, and patients.[65]

Figure 4

	Horizon 1	Horizon 2	Horizon 3
VISION	**Embedding safe, ethical and effective use of systems of record**	**Integrating new technologies and ways of working**	**Digital health transformation**
	Healthcare workers and consumers have access to digital health tools and increased access to information, equipping them with greater decision-making power.	Systems and organizations are better connected, enabling them to analyze information, plan, and respond to health demands. Emerging digital technologies will re-shape health functions and new roles will emerge. The focus will be in enterprise transformation.	Healthcare delivery is transformed, for example, through value-based healthcare, personalized medicine, empowered consumers, and a shift towards home and community health service delivery and primary and preventative health.

Source: Australian Digital Health Agency. (2020). National Digital Health Workforce and Education Roadmap. Retrieved from: https://www.digitalhealth.gov.au/sites/default/files/2020-11/Workforce_and_Education-Roadmap.pdf

Kaiser Permanente's School of Medicine: Living equity, diversity, and inclusion

Organization: Kaiser Permanente Bernard J. Tyson School of Medicine

Description: The school hosted its inaugural class of 50 in 2019. One of the foundational principles underpinning Kaiser's vision and values is its commitment to championing equity, diversity, and inclusion (EDI) within medical education, the profession, and the health system, in response to evidence demonstrating that the U.S. provider cohort lacks the diversity reflective of the populations they serve.[66,67]

Objective(s):

– Increase the diversity of the health workforce, which starts with admissions in professional schools. Importantly, this can support the elimination of health disparities and inequities by facilitating greater trust and communication between patients and providers, enhancing access to quality care.[68]

Main approach elements:

– **Leadership:** Kaiser employs an Associate Dean for Equity, Inclusion, and Diversity, who is a full member of the leadership team, and has been appropriated a budget and supporting personnel to implement a strategic framework for embedding Kaiser's commitment to EDI throughout the school.[68] The school has also engaged a highly diverse group of board members.

– **Admissions:** Admissions are led by the Associate Dean, with the support of a diverse admissions committee with respect to gender, race, ethnicity, sexual orientation, and specialty.[68] Kaiser has also committed to waiving the tuition fees of all students in its first five cohorts, supporting increased socioeconomic diversity of its students and reducing the likelihood of debt impacting students' career choices.[69]

– **Curriculum:** Kaiser leverages the Longitudinal Integrated Clerkship (LIC) model, which has been implemented elsewhere to increase retention of providers in underserved communities.[68,70] The LIC model is organized around Kaiser's unique, team-based, interprofessional care models across each specialty within Kaiser's integrated system.[71] The school has supported all academic departments and those responsible for curriculum development in ensuring culturally-sensitive content is developed.

Outcomes:

– Kaiser is transparent with its class diversity statistics, demonstrating an accountability to the public and the communities the institution serves. See the school's inaugural class profiles below.

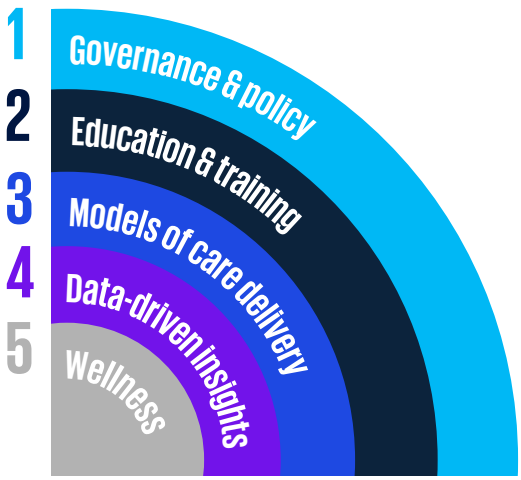
Figure 5

Kaiser Permanente's First Class Profiles[72]

**Percentages equal above 100% as students may identify as more than one demographic listed*

Student Demographic	Class of 2024 (%)	Class of 2025 (%)
Race/ethnicity underrepresented in medicine	36%	40%
LGBTQ+ community	30%	30%
Socioeconomic disadvantage	34%	26%
Non-traditional students	26%	34%
Non-science undergraduate majors	30%	30%
Females	48%	52%

The Netherlands: Closing gaps in primary and community care



1
- Investment in making professions in need more attractive

2
- Professional schools have the ability to adjust curriculum and training seats in a responsive manner

3
- Health workforce is empowered to collaborate, share knowledge, and innovate

4
- Data collection is standardized, regulated, transferable; data is strategically integrated and leveraged
- Workforce data enables workforce productivity

Planning for the general practitioner workforce

Organization: Advisory Committee on Medical Manpower Planning (ACMMP)

Description: In response to a looming shortage of general practitioners (GPs) and medical specialists in the late 90s, medical professions, educational institutions, and health insurers formed the independent ACMMP with the mandate of determining appropriate training capacity required to meet future demand for care.[73] The government has been in support of this approach as it sees GPs as central to controlling secondary care costs in a strained system, investing heavily in resources and infrastructure to support physicians and make primary care an attractive career choice.[3]

Objective(s):

- To facilitate an understanding of the gap between required and available numbers of healthcare professionals, and the balance between the two for the coming 10 to 20 years.[3]

Main approach elements:

- **Workforce evolution:** The model addresses a number of elements, including, but not limited to, labour market migration, sociocultural evolution, technical advancements, efficiency changes, shifts in working hours, retirements, and task shifting within and between professions.[3,74]
- **Decision-making:** Leveraging the simulation outputs associated with various scenarios, the ACMMP provides recommendations to the Ministry of Health, Welfare, and Sport. The government then determines the budget for training of health professionals in order to support the determination of enrollment numbers at educational institutions.[3]
- **Alignment across stakeholders:** Agreement among stakeholders is required to implement the recommendations. It is recognized that modelling is not an isolated exercise – inputs to the model are updated regularly to address changing conditions and growing complexities.[75]

Outcomes:

- It was estimated that unmet demand for primary care was approximately 5%.[75] By 2010, this estimate was close to zero, reaching an equilibrium that reflected neither an oversupply or shortage of GPs.[75]
- The number of GP vacancies has remained low and relatively stable at 1.7 vacancies per 100 GPs – most GPs who completed GP training found an appropriate place to work.[75] Lastly, the Dutch inhabitant-to-GP ratio has remained stable.[75]

To support these types of outcomes, investments are made to ensure general practice is an attractive and highly respected specialty – practitioners are well-supported by collaborative teams, organizational networks, and high-quality infrastructure. A segment of primary care physician payment involves a bundled payment system, which is focused on delivering care for chronic conditions through GP-owned care groups in a given region.[75] The care group coordinates the care and facilitates composition to the healthcare professionals supporting the patient's care.

The Buurtzorg Community Care Nursing Company

Organization: Buurtzorg Nederland

Description: The Buurtzorg care model, which has received widespread international attention, was developed in 2006 by Buurtzorg Nederland; a non-profit Dutch home care organization.[76] The organization employs over 10,000 nurses and assistants in 850 self-managed teams that support approximately 70,000 patients per year.[77] The organization keeps a small team of 45 back-office staff which keeps overheads to a minimum, unlocking more time for patient care.[78]

Objective(s):

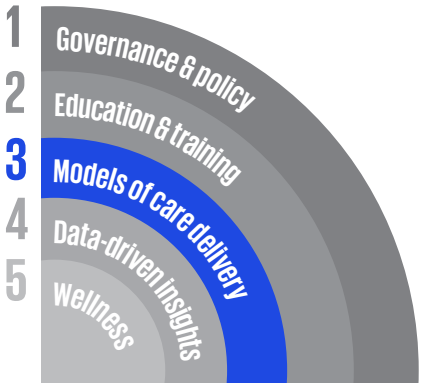
- Bringing a holistic, neighbourhood approach to care in the community – Buurtzorg lives this vision through the motto of CEO Jos de Blok, "humanity over bureaucracy".[77]

Main approach elements:

- **Self-managed teams:** Buurtzorg's self-managed teams consist of up to 12 nurses that are responsible for a range of 40 – 60 individuals in a given community.[3] While certain home care services require specific nursing skillsets, other tasks individuals require support with, such as activities of daily living (e.g., bathing, eating, etc.), are provided by staff who are less trained and more cost effective resources.[76]
- **Collaborative approach:** The team works with primary care providers, community resources, and importantly, patients and their families to facilitate a continued degree of independence in the home.[77] Buurtzorg nurses provide a range of services including patient assessments, establishing and implementing care plans, scheduling medical visits, and care coordination.
- **Centralized data:** The organization also uses a centralized information technology system and intranet to facilitate scheduling, nursing assessment documentation, billing, and information-sharing within and between teams.[77]

Outcomes:

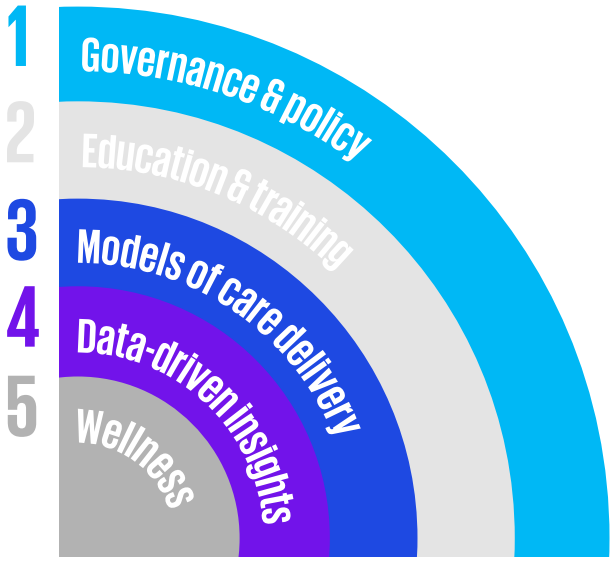
- Buurtzorg has received high patient and family satisfaction ratings and has demonstrated positive health outcomes among patients, resulting in a growth of referrals from physicians, hospitals, and word-of-mouth recommendations.[77]
- In a study published in 2015, Buurtzorg was among the top 10 of nearly 400 home care agencies in the Netherlands on measures of patient-reported experiences, while providing 60 fewer hours of care per patient per year than the average home care organization in the Netherlands.[76]
- Buurtzorg's case-mix adjusted costs for nursing home care were lower than 62% of home care providers in the Netherlands. The total case-mix adjusted cost per client, including both home care and follow-up costs from physicians and hospitals, is just below average in the Netherlands.[76]



3

- Workers are able to adapt and ably move across delivery models in order to provide a range of services through task shifting and practice at optimal scope
- Health system planners capitalize on strategic technology initiatives and leverage centralized staffing models to enhance employee productivity
- Health workforce is empowered to explore opportunities to collaborate, share knowledge, and continuously work toward developing innovative models of care

New Zealand: Interdisciplinary planning uplifted by collaborative governance



Organization: New Zealand Ministry of Health

Description: New Zealand takes an interdisciplinary, needs-based approach to planning, focused on optimizing roles, and addressing regulation and education to empower providers to meet patient needs.[78] While, to some degree, these efforts focus on increasing supply, New Zealand's approach is suggested to be a model that countries can look to for application of planning methodologies that are framed around the question, "how can we more effectively redeploy and retrain our existing workforce?", particularly in a cost-constrained system.[79]

Objective(s):

– To achieve a consolidated voice for workforce planning at the national level following a period of time when there was a myriad of advisory, self-interest, academic, and government groups, often based in professional silos.

Main approach elements:

– **Forecasting methodologies**: Workforce Service Reviews (WSRs), which are sets of possible service-aggregated future scenarios, aim to make the best use of existing health human resources.[79] WSRs assess how redesign, technology, and capital adjustments can be merged with workforce reconfigurations to meet shifting population health needs through the redesign of care pathways.[79] The forecasts often recommend task shifting and expansion of the scope of roles, including advanced training for nurses to perform endoscopies and enabling optometrists to prescribe glaucoma medications.[79]

– **Interprofessional planning**: The WSRs are clinician-led and engage patients, healthcare workers, and workforce planners. Planning is completed across disciplines for services rather than in silos as models of care continue to drive more team-based service provision.

Following development of the WSRs, providers from varying professions will work together to modify training programs and registration to ensure alignment to patient needs rather than professional interests.

– **Centralized governance:** The Health Workforce Directorate reports to New Zealand's Ministry of Health, providing coordination and leadership on operational workforce initiatives at the national level.[80] The Directorate advises on regulation, consolidation of workforce data and intelligence, and directing investments in training.[81] Strategic oversight, advice, and recommendations are provided through a non-executive Health Workforce Advisory Board in partnership with New Zealand's Ministry of Health.[81,82] Moving decisions on policy implementation forward based on WSRs requires collective agreement between government, regulators, and academic institutions through the Advisory Board – no group makes decisions in silos.

Outcomes:

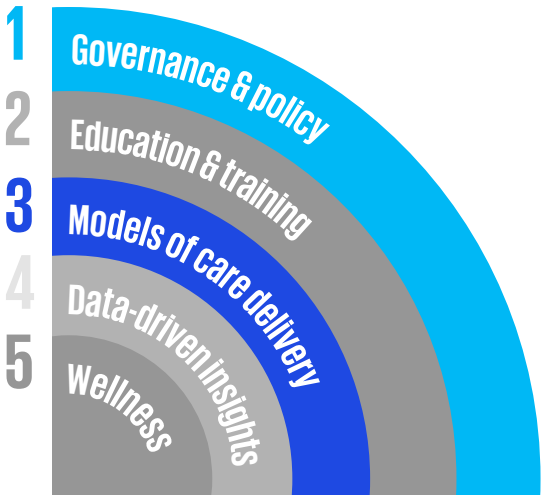
– The forecasts have highlighted gaps in skills and training needs of the existing workforce, such as New Zealand's home and community care resources who could potentially safely take on new tasks, if trained.[80]

– Establishing a single, accountable structure for workforce planning has supported the consolidation and coordination of a fragmented system that previously functioned in a more reactive manner with a short-term view.

– Clarity around the role and mandate of entities involved in planning to facilitate consolidation is critical. As the health sector was made aware of the Advisory Board, it became the "go-to" for all professional bodies to engage with on planning efforts.

Note: The content of this spotlight reflects the New Zealand Ministry of Health's approach prior to June 2022. As a result of the 2022 health reform, the majority of the health workforce function will transfer from the Ministry of Health to the newly created entity, *Health New Zealand*.

Germany: Empowering caregivers as workforce partners



1
- Cross-sector collaboration
- Governance models include integrated decision-making structures

3
- Planning scenarios encapsulate the patient-centric models of care we want to advance

Organization: Federal Ministry of Health

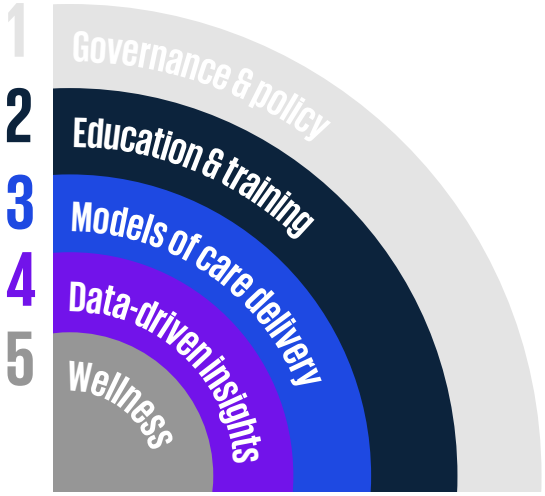
Description: Germany hosts a compulsory insurance system for long-term care (LTC) as part of the country's broad social safety net.[45,83] This insurance scheme was introduced in 1995 mainly to address the anticipated financial burden related to supporting a rapidly aging population.[84] The model is founded upon the core German value of social solidarity; it considers universal public payments and means-tested social assistance against personal and family responsibilities.[46]

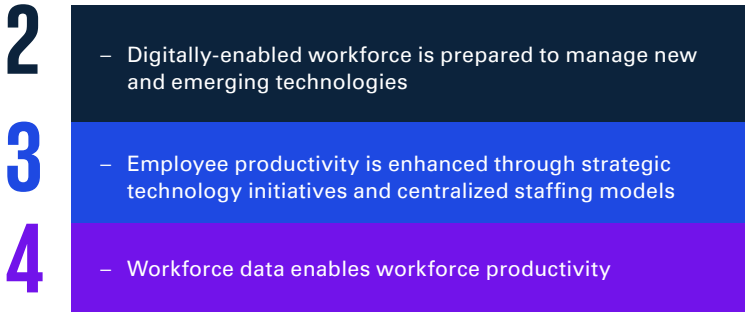
Objective(s):
- To strengthen care at home and in the community, partly through subsidized family caregiving costs.[85]

Main approach elements:
- **Payment options that promote family caregiving:** Benefit access is stratified into one of five categories for LTC based on an individual assessment identifying the level of need of care, and eligible beneficiaries can receive services in-kind, cash payments, or a combination of the two.[84,86] 80% of beneficiaries opt for cash payments, which can be used freely, such as for a family caregiver, despite the value of cash benefits being lower than services in-kind.[86]
- **Continuous expansion of home and community care support services:** The LTC insurance system underwent a series of modernization acts from 2015 – 2017, which expanded support services to include day care and assistance to everyday life. To finance additional services, the contribution rate has been raised to 3.05% of wage income.[87]
- **Support for informal caregivers:** The Care Leave Act of 2015 was a pivotal piece of legislation aimed at improving financial security for informal caregivers.[88] The Act provides legal entitlement to financial provisions for caregivers, including care support payments for acute care leave.[89] Free training courses in LTC and a counselling hotline are offered by the state to family caregivers.[89]

Outcomes
- Within three years of the introduction of the national LTC insurance system, Germany saw a 50% reduction in individuals requiring social assistance for LTC owing to increases in home care and delayed residential care.[3]
- Two-thirds of those receiving the subsidy are receiving services in the home.[45]

Humber River Hospital in Toronto, Canada: Unlocking more time for care with data insights and automation





Organization: Humber River Hospital (HRH)

Description: Toronto, Ontario is home to North America's first fully digital hospital: Humber River Hospital.[90] The hospital's integration of technology into patient care is extensive, including automated medication administration, automated vehicles for supply transport, and patient- and staff-locating devices for care flow optimization.[91] The technological advancements embraced by HRH have led to improved clinical outcomes and are positively impacting its workforce by increasing efficiency and unlocking more time for care.[92]

Objective(s):

– To integrate cutting-edge technology into a myriad of hospital functions to optimize patient care and hospital capacity through data-driven decision-making.

Main approach elements:

– **Control room:** HRH hosts Canada's first hospital command center: a data-driven control room likened to NASA's mission control. The control center is outfitted with state-of-the-art artificial intelligence (AI) technology that generates real-time data and leverages predictive analytics.[92]

– **Data visualization:** Key data points and patient flow elements are visualized on a "data wall" to provide patient information at-a-glance, and include emergency department volume, bed allocations, critical care capacity, and discharge planning.[93] This data can be used to guide and manage patient flow and staff resourcing, thereby optimizing capacity.

– **Encourage technology adoption:** A key enabler to facilitating enhanced technology adoption by nurses at HRH was consistent exposure to technology, including computerized systems.[94] HRH also purposefully designed education modules to promote adoption by positioning new technology in line with nurses' values, such as improving safety, promoting teamwork, and saving time.[95]

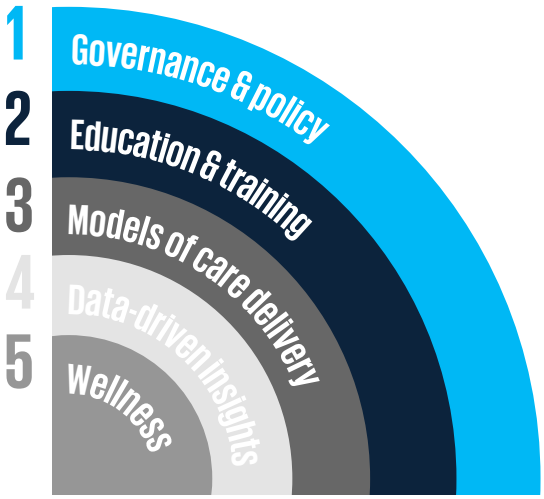
Outcomes:

– HRH reports increasing inpatient capacity equivalent to the addition of 35 beds, has eliminated hallway medicine, and reduced emergency department wait times despite an 8% growth in volume since the opening of the Command Centre.[95] Similar hospital command centers in the U.S. have demonstrated that leveraging these data points can increase hospital occupancy by 7% and improve bed cleaning turnaround times by over 29%.[96, 97]

– The hospital has automated over 75% of back-of-the-hospital services, including pharmacy medication administration, food delivery, and laundry services, allowing human resource planning to focus on patient engagement roles.[92]

– An HRH study revealed that nurses in the baby boomer generation had similar proficiency with technology as their younger generational counterparts.[98] Nurses across all generations surveyed reported that adjusting to new technology occurred rapidly, within approximately 2-3 weeks from initial exposure.[98]

Baltimore, Maryland: Forging collaborations to diversify the workforce



1 – Investment in making professions in need more attractive

2 – Recruitment and curriculum practices are inclusive, equity-focused, and socially-accountable

Organization: The Baltimore Alliance for Careers in Healthcare (BACH), a non-profit organization in Baltimore, Maryland

Description: BACH's programs, intended to address health workforce shortages, draw on evidence-based, industry-sector workforce models, and have served over 1,500 participants, the majority of which live in underserved communities.[99,100,101] 86% of participants are African-American and 83% are female.[100] Beginning as a collaboration between the Head of Human Resources for Johns Hopkins Health System, the Baltimore Mayor's Office of Economic Development, and the Baltimore City Empowerment Zone, BACH has expanded to involve 11 regional hospitals and more than 80 partners, including hospital associations, community-based agencies, community colleges, and local high schools.[100,102]

Objective(s):

– To address healthcare workforce shortages and reduce regional unemployment and underemployment rates.[100]

Main approach elements:

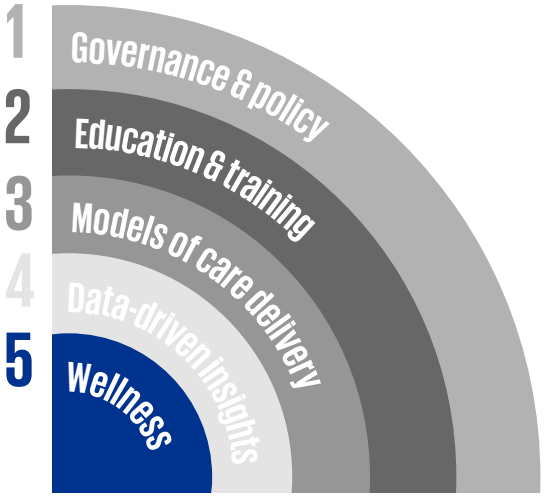
– **EARN Maryland**: One of BACH's programs, EARN Maryland, trains underemployed residents for healthcare roles specifically identified by healthcare employers within Baltimore. The program involves collaboration between a funding partner, the Maryland Department of Labor, seven major hospitals, and community organizations, and has placed almost 700 workers into roles including certified nursing assistants, geriatric nursing assistants, patient care technicians, certified medicine aides, and central sterile tech processors.[102] Through collaborative efforts, the program removes barriers to employment for residents, is free of charge, and covers tuition and exam fees.[103]

– **BACH Fellows program:** The BACH Fellows program caters to high school students who are interested in healthcare careers.[103] By partnering with healthcare institutions including Johns Hopkins Hospital, Hopkins Bayview, and University of Maryland Medical System, BACH offers six-week paid internships where students shadow healthcare workers, gain valuable experience in the field, and receive support developing an Individualized Development Plan.[104] This program supports the next generation of healthcare workers from low socioeconomic backgrounds, while addressing the critical shortage of skilled healthcare employees in Baltimore.

Outcomes:

– Outcome data are expected as additional program participants are served.

Mount Sinai Health System in New York: Addressing the hierarchy of health worker care needs



5

- Positive organizational culture driven by top-down and bottom-up approaches
- Programs and standards are developed to promote a resilient health workforce

Organization: Mount Sinai Health System

Description: New York City (NYC) was an epicenter of the COVID-19 outbreak in 2020.[105] Mount Sinai Health System—the largest hospital system in NYC, with eight member hospitals, nearly 400 ambulatory practice locations, and over 40,000 employees—responded promptly to the needs of its health workforce early in the pandemic.[106, 107] In March 2020, an Employee, Faculty, and Trainee Support Task Force was established to address immediate workforce support needs arising from the pandemic. The Center for Stress, Resilience, and Personal Growth (CSRPG) was launched in April 2020 to address the overall well-being of front-line healthcare workers.

Objective(s):

- To establish an immediate pandemic response plan to address workforce wellness.

Main approach elements:

- **Rapid needs assessment**: To address the unprecedented stressors of the COVID-19 pandemic, Mount Sinai conducted a rapid needs assessment, which informed the design of a staff intervention model based on Maslow's Hierarchy of Needs (Figure 6).[108]
- **Phased intervention model:** The intervention model focused on three priority areas for workforce wellness: meeting basic needs, providing consistent and reassuring communications, and offering accessible mental health support.[109] Recognizing that concerns evolve over time, early pandemic interventions that focused on providing basic daily resources were front-loaded. To meet basic needs, for example, free meals were provided through a system-wide provision of food for front-line workers, and free or reduced-cost food options for staff to order.[109]
- **Transparent communications strategy:** Both system-wide and local communications tactics were implemented. At the system-level, town halls with leadership occurred at least weekly, and at the local-level, daily departmental emails were sent, and daily to weekly conferences were held to disseminate information tailored to the local context.[109]
- **Accessible mental health assistance:** On-the-ground mental health rounding teams were deployed, and interactive recharge rooms were created to provide immediate support and front-line relief.[108] As the

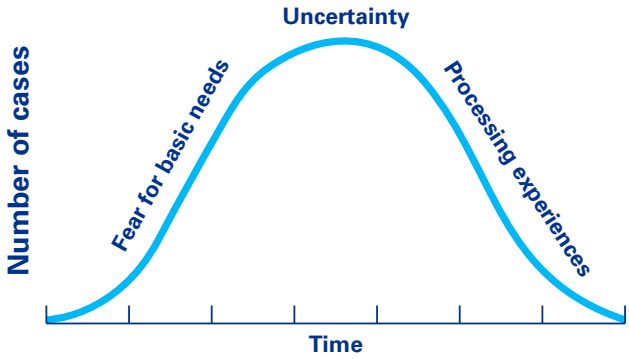
pandemic evolved, mental health assistance expanded to include hot lines, support groups, crisis support, and selfcare programming.[109]

– **Longer-term resilience planning:** Clinical programming, educational workshops, and mental healthcare pathways were continuously informed by stakeholder input and previous resilience research, including evidence from 9/11 responders.[109] The CSRPG built a resilience-building app, the "Wellness Hub", which houses mental health tools tailored to the Mount Sinai community.[109]

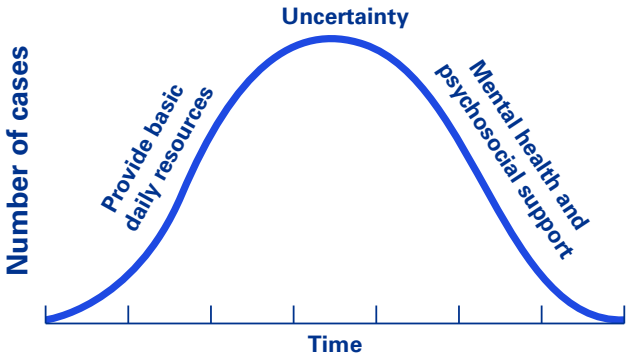
Outcomes

– CSRPG initiatives are still in their early stages and outcomes data are expected in the near future.

Figure 6



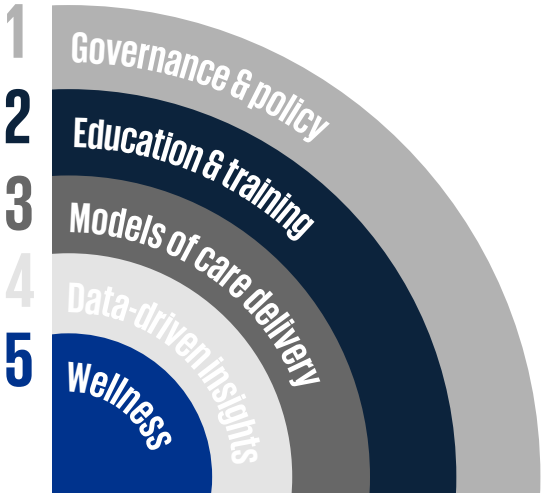
Pandemic Curve and Associated Stressors | Greatest Concerns



Pandemic Curve and Associated Stressors | Strategies to Address

Source: Mount Sinai. (2020). Pandemic Workforce Well-Being.
Retrieved from: https://icahn.mssm.edu/files/ISMMS/Assets/About%20the%20School/Office-well-being/MSHS_COVID-19_Toolkit.pdf

Ontario's COVID-19 lab testing strategy: Rapid workforce upskilling to meet surges in demand



2 – Build domestic capacity to advance more workers into practice

5 – Strategies to optimize workload are implemented

Organization: Ontario Health

Description: Facing a shortage of lab professionals and growing demand for COVID-19 lab testing across the province during initial waves of the pandemic, Ontario Health sought to expand its laboratory workforce in 2020 to address new testing requirements. This initiative was part of a broader assignment to establish a COVID-19 testing partnership across laboratories in Ontario. A workforce strategy was developed and included several tactics aimed at increasing the urgent and immediate need for medical laboratory technologists (MLTs).

Objective(s):

– Create a workforce strategy aimed at increasing the number of workers to supplement the limited supply of MLTs. The province of Ontario was faced with inadequate supply of MLTs and an inability to fill demand in a short period of time. It can take two to four years to become a registered MLT, and graduating classes would be insufficient to fulfill laboratory needs. Challenges impacting the supply of MLTs included retirements, burnout, and limited training opportunities.

Main approach elements:

– **Increasing recruitment efforts and visibility to the urgent needs within the province:** The Canadian Society for Medical Laboratory Sciences (CSMLS) disseminated broad communications about job opportunities, while Ontario Health (through the former HealthForceOntario) used its specifically developed COVID recruitment portal and referred vetted MLT candidates directly to laboratories with vacancies.

– **Targeting out-of-province recent graduates:** Communications-based strategies were used to target out-of-province recent graduates, with the aim of relocating health workers from other geographies to Ontario. The regulatory college then facilitated registering out-of-province MLTs in Ontario, where possible.

– **Expanding cohort of international lab workers:** The Ontario government partnered with The Michener Institute of Education at University Health Network in downtown Toronto to expand the cohort size of an existing internationally educated MLT bridging program.

- **Upskilling science graduates and task shifting:** The Ontario government funded The Michener Institute of Education at University Health Network in downtown Toronto to develop an upskilling initiative enabling recent Science Graduates from Masters or PhD programs to play a role in laboratory testing. (more akin to MLAs)
- **Leveraging existing databases to identify potential job candidates:** The College of Medical Laboratory Technologists of Ontario (CMLTO) used its database of practice-ready MLTs—individuals who meet practice requirements but are not registered owing to retirement, career switching, or other reasons—to communicate job opportunities in laboratories across the province. The regulatory college facilitated registering these MLTs, where possible. The Ontario government explored policies required to quickly re-register these practice-ready MLTs to increase the workforce.

Outcomes:

Through the tactics identified, and strong support of partners from government, regulatory organizations and the Michener Institute, several outcomes were achieved:

- Coordinated recruitment process for the province through Ontario Health (Workforce Ontario) to meet demand for MLTS
- Coordinated development and implementation of a provincial upskilling training program
- Increased task optimization and development of new roles to accommodate science graduates with upskilling program

Where do we start? Primary care.

While this brief provides innovative examples of how jurisdictions have made efforts to address health workforce challenges that are similar to Canada's in a variety of settings, they do present a broad landscape. The question becomes, where can we start? There is a greater likelihood of success at meeting population health needs when looking at solutions by setting, given the high degree of complexity associated with varying geographical, community, jurisdictional, and political contexts.

Keeping patients out of acute care settings requires a critical review of how Canada can strengthen its primary and community care system following the pandemic, particularly given the forecasted shortage of family doctors within the next decade and indications of multiple disciplines considering reducing their clinical hours in the coming years.[15,110] International evidence demonstrates that countries that have a proactive approach to Health Human Resource planning in primary care tend to have stronger population health management, health outcomes, and greater cost savings.[111]

While the commitments made by the federal government in 2021 to grow investments in primary care are a step in the right direction, bolder action is needed to transform the system our healthcare workers work within. To effectively plan for the future of the primary care workforce and meet growing demand, there are fundamental elements of the health system that require reform and collaboration across governments, policymakers, leaders, educational institutions, and researchers to implement.

Define essential services based on population health needs

Consideration should be given to establishing clearer parameters around what is defined within a basket of publicly funded services as *need*. This goes back to examining what types of services provinces and territories receive transfer payments for under the Canada Health Act, so as to uphold the principle of comprehensiveness in a manner that meets the care needs of all populations equitably. What is the definition of comprehensive care that is accessible? Answering this question will enable health system stakeholders to plan for appropriate models of care and deliver those services supported by robust accountability frameworks.

Psychological services are one example of a key service not covered by provincial/territorial health insurance plans, despite the fact that patients in low income and low education cohorts are twice as likely to develop anxiety and depressive disorders.[112,113] Canadians pay for 30% of private psychological services out of pocket while the remainder is generally paid for privately or through employment insurance coverage. Those who are unable to secure stable employment or are underemployed may not necessarily qualify for those benefits. Policy initiatives targeted toward reducing incidence by 10% in a given year have the potential to save the economy $4 billion per year after 10 years of investment.[14]

Plan for team-based models of care

Exercises that tailor planning efforts towards integrated models of care facilitate a broader, longer-term view that goes beyond addressing short-term supply concerns. New Zealand's service-aggregated planning approach considers the redistribution of tasks and the introduction of new roles to ensure all healthcare workers are performing high-value work flexibly – a method that addresses how existing workforce roles and skills will evolve over time and how this aspect influences supply needs based on care demand.

Interprofessional, team-based primary care models encourage the full suite of healthcare workers to work at optimal scope, can support a more optimally distributed workload across all team members, and promote access to the most appropriate provider based on a patient's needs. These models are underpinned by high-functioning team members who deeply

understand their roles and responsibilities, the unique contributions of other team members, scope of practice and competencies, as well as limitations, which has implications for how healthcare workers are trained interprofessionally in educational environments.[114]

Innovate with payment models that focus on outcomes and facilitate increased access to team-based care

Canada has seen the introduction of alternative payment plans (APPs) in recent decades, however, the fee-for-service (FFS) payment model remains the dominant form of physician compensation.[115] Challenges identified with the FFS model include the quality of care provided under this structure, the "one problem per visit" approach, and the perpetuation of inequities among vulnerable groups.[116] APPs can better enable the appropriate funding, implementation and support of collaborative, comprehensive, team-based primary care models that employ the full suite of healthcare professionals to work at optimal scope.[116] Moreover, evidence out of Ontario suggests that physicians who practice in non-FFS models have greater levels of work satisfaction compared to physicians practicing in FFS models.[116]

Closing thoughts

The COVID-19 pandemic has exacerbated longstanding gaps in Canada's health system, and health systems around the globe. The challenges that have led to a demoralized, overworked, and burnt-out workforce – and resulting issues with respect to inequitable access to care – are fundamental structural and systemic challenges that existed long before the pandemic that have further revealed the status quo is unsustainable.

There have been numerous public calls-to-action on the need for solutions to address the workforce crisis on our hands, for both the short- and long-term. Some might ask, what is different now? Are leaders and decision-makers prepared to engage in system change at this inflection point?

What will be different going forward?

This brief provides inspiration from global jurisdictions that decision-makers and health leaders can leverage to reconsider how to create a safer and healthier future for all healthcare workers and people living in Canada. Leveraging the insights from this report, we hope to unify patients, caregivers, decision-makers, policymakers, regulators, educational institutions, and professional associations together to meaningfully take concerted action on redesigning how we plan for, recruit, train, retain, distribute, and support the holistic needs of our health workforce, which means taking action on redesigning the system our healthcare workers work within.

Through our work, we have seen that what has changed is that the pandemic accelerated *the desire* across the health system to disrupt the status quo. Stakeholders across provinces, territories, and at the national level are aligned on the need for concerted action now to drive the development and implementation of meaningful solutions to support our health workforce and, in turn, enhance the quality of care that Canadians receive. A few examples include:

- The Canadian Medical Association and Canadian Nurses Association have hosted two crisis summits with representatives from approximately 40 organizations to identify both short- and long-term solutions to Canada's health workforce challenges – many of which are rooted in concrete policy shifts.
- The Canadian House of Commons Standing Committee on Health is studying Canada's health workforce crisis through engagement with pan-Canadian subject matter experts to inform policy.
- The Canadian Health Workforce Network has led a call to action to the federal government, signed by over 60 organizations, requesting investment in resources and infrastructure that will support development of minimum data standards and improved data collection for planning purposes.
- The 2022 National Health Leadership Conference, co-hosted by HealthCareCAN and the Canadian College of Health Leaders, held its annual Great Canadian Health Policy Dialogue with a focus on Canada's HHR challenges exacerbated by the pandemic. This resulted in the delivery of a federal call-to-action on implementation of policy recommendations jointly generated by stakeholders across over 230 organizations in Canada.

This is the time to redesign the healthcare system.

Stakeholders should be prepared to deeply collaborate to support the redesign of a system that better serves the contemporary care needs of patients and healthcare workers alike. Addressing this crisis will be a challenging undertaking. The health human resource challenge before us is a complex issue requiring a multi-faceted solution that is fundamentally focused on people. Following the events of the pandemic, planners, decision-makers and stakeholders have the opportunity to consider how we can more effectively plan for and redeploy our workforce. Consideration of health and well-being of the healthcare worker should be woven into these efforts while balancing the advancement of patient-centred models of care.

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