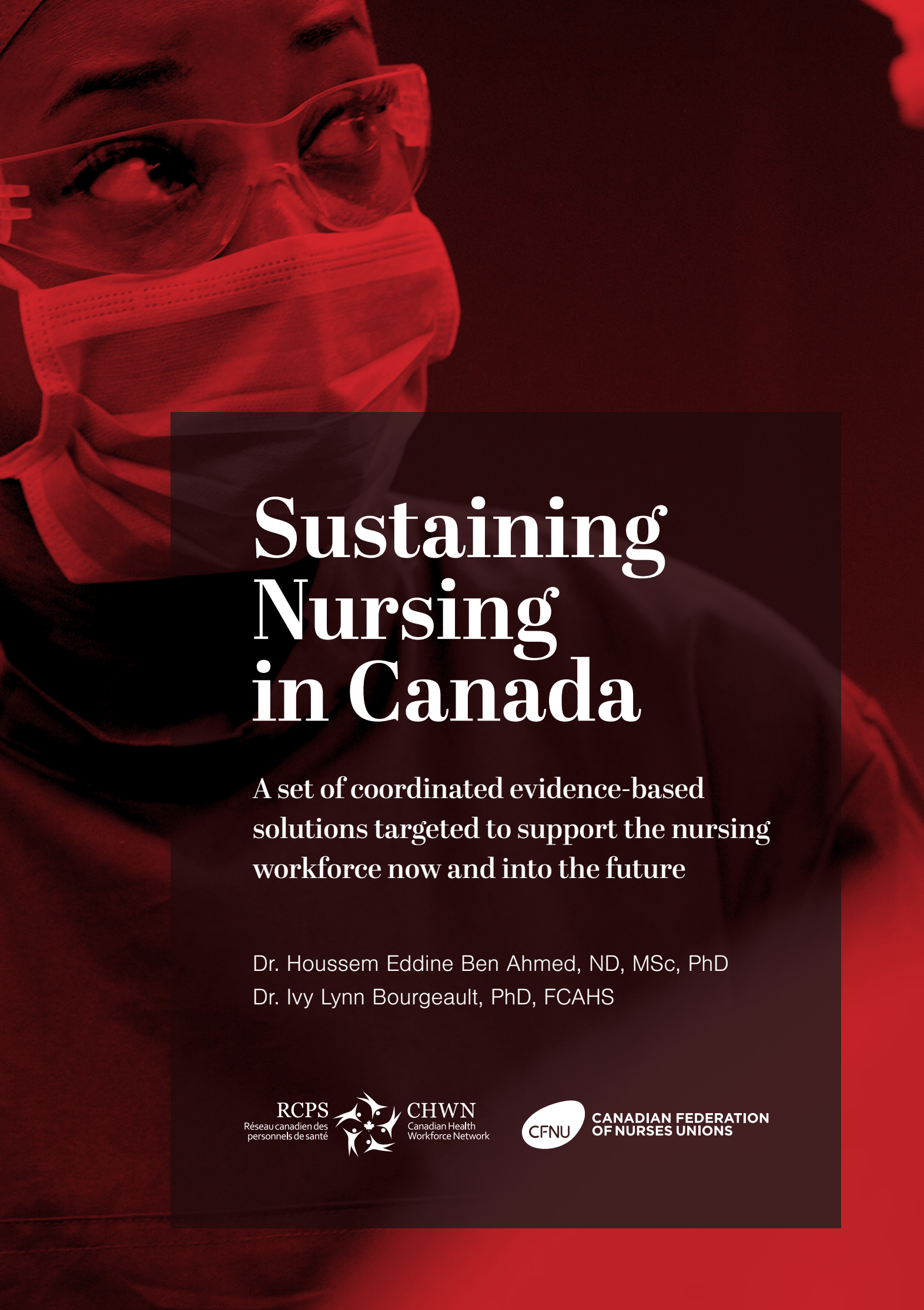

Sustaining Nursing in Canada

A set of coordinated evidence-based solutions targeted to support the nursing workforce now and into the future

Dr. Houssem Eddine Ben Ahmed, ND, MSc, PhD
Dr. Ivy Lynn Bourgeault, PhD, FCAHS

RCPS Réseau canadien des personnels de santé
CHWN Canadian Health Workforce Network
CFNU CANADIAN FEDERATION OF NURSES UNIONS

About the CHWN

The Canadian Health Workforce Network is a knowledge exchange network of researchers, decision-makers and other knowledge users with expertise in health workforce planning, policy and management.

About the CFNU

The Canadian Federation of Nurses Unions is Canada's largest organization representing Canada's frontline nurses in every sector of health care – from home care, longterm care, community and acute care, including nursing students – and advocating on key health priorities and federal engagement in the future of public health care.

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Message from the CFNU President

Linda Silas, president of the Canadian Federation of Nurses Unions

Half of nurses currently working wish to change jobs. Ninety-four percent are showing signs of burnout, and 83 per cent say they are so understaffed they worry for the quality of care they can provide. Meanwhile, nursing vacancies have more than tripled (+219.8%) in the last five years, according to Statistics Canada's July 2022 Labour Force Survey. Governments and employers at all levels and across all sectors are paralyzed by the magnitude of the situation.

Let no one say we are catastrophizing. The nursing shortage of 2022 is most certainly a crisis, and leaders need to address it as such.

Nurse leaders have seen this global crisis coming from afar. Our health care system has relied on the heroic dedication of frontline workers throughout the pandemic. Nurses and their colleagues were there when we needed them. They put the needs of patients first and foremost, and got us through some of our darkest times. But these burdens cannot be borne indefinitely. Nurses are frustrated and angry. Morale has reached a new low because nurses lack the resources to provide the quality of care they know patients deserve, and there is no clear plan in sight.

In this report, the Canadian Federation of Nurses Unions has partnered with health policy and workforce planning expert Dr. Ivy Bourgeault and her team. In the clearest terms, we present the magnitude of the situation and the known solutions to address it. Retaining our experienced nurses will ensure the highest quality of care; returning nurses who have left will bolster our

ailing workforce; recruiting and training the nurses of tomorrow will prepare us to meet future needs. Further, the collection and effective use of data will provide the roadmap to avoid recurring and drastic nursing shortages.

Nurses have been battered by the pandemic, but we are not beat. With government support directed at proven measures to address the staffing crisis, and with a commitment to effective health human resources management, we can turn the tide and bring about an era of effective health workforce management.

Immediate action is required to stop the bleed – we need to retain our current workforce to halt the closing of health services across Canada. We need to stem the increasing threat of privatization, which diverts health human resources to the privileged at the expense of everyday Canadians. Health care employers, for their part, must create workplaces conducive to the well-being of workers and patients.

In short, federal and provincial/territorial policy leaders and elected officials should assess their current challenges and begin implementing some of the targeted solutions outlined in this report. They should commit to standardized data submission, collection and analysis, developing systems that allow each jurisdiction to better manage health human resources in the future, heading off crises before they happen.

I would like to personally thank the CFNU team, including Carol Reichert and Paul Curry, the advisory committee on this project – Barbara Brookins, Bridget Whipple and Judith Grossman, and the authors – Ivy Bourgeault and Houssem Eddine Ben Ahmed. I reserve my strongest gratitude to every working nurse, for their commitment to Canadians and our health care system.

Together we can and will do better.

In solidarity always,

Linda Silas
President, Canadian Federation of Nurses Unions

Strategic Priority Actions

To address the immediate challenges in nurse retention

- The federal government should set standards for minimum care, including nurse-patient ratios, and support the spread and scale of promising initiatives from other jurisdictions.
- Provincial/territorial governments should spread and scale evidence-informed retention initiatives with targeted investments in partnership with employers and health authorities.
- Employers should foster safe, healthy, and supportive work environments, adding nursing support roles to reduce non-nursing duties and implement processes to reduce workloads.

To foster the return of nurses to the public health care system

- The federal government should create a public workforce agency to employ mobile nurses and other health workers licensed to temporarily address high-need areas.
- Provincial/territorial governments should fund flexible return-to-practice programs.
- Employers should provide mentorship and other supports bridging nurses' return to work.

To integrate internationally educated nurses (IENs) presently in Canada

- The federal government should enhance supports for IEN bridge training and mentoring programs enabling their more-timely integration in partnership with provinces/territories.
- Provincial/territorial governments should fund and encourage regulators to streamline the licensure recognition process supporting IENs through compensated bridge training.
- Employers should adopt tools to streamline IEN integration, including paid mentorship and support from experienced nurses in practice.

To strategically enhance appropriately mentored recruitment pathways

- The federal government should support strategic nurse faculty recruitment to increase enrolments and target tuition support for work in underserved communities and sectors.
- Provincial/territorial governments should scale employed student nurse programs to support transition to employment and micro-credentials to support nurse career laddering.
- Employers should support the capacity of clinical faculty to increase enrolments through funded secondments in partnership with universities and colleges.

To embed and enhance nursing workforce planning with digitally enabled tools

- The federal government should establish a health workforce agency that supports the enhancement of nursing and other workforce data and digitally enabled tools for employers and regional authorities to integrate into their ongoing planning.
- Provincial/territorial governments should initiate or reinstate ongoing nursing workforce planning in collaboration with nursing workforce partners.
- Employers should utilize human resource information systems to embed ongoing planning for nurse staffing.

Executive Summary

Challenges Facing the Nursing Profession

The nursing workforce – registered nurses (RNs), licensed practical nurses (LPNs), registered psychiatric nurses (RPNs) and nurse practitioners (NPs) – is struggling with numerous complex intersecting issues including chronic shortages, inadequate staffing, excessive workloads, mandatory overtime, toxic workplaces, and endemic violence. The pandemic has both compounded these challenges and introduced new concerns with occupational exposures, overcapacity issues and significant moral distress. Feeling disrespected, frustrated and overwhelmed, and lacking control over the way they practice their profession with little to no work-life balance, many nurses have left and many more are contemplating leaving full-time positions. This leaves those remaining in the profession with little hope unless there is clear, decisive, and coordinated action to change the dire situation.

How Did We Get to This Point?

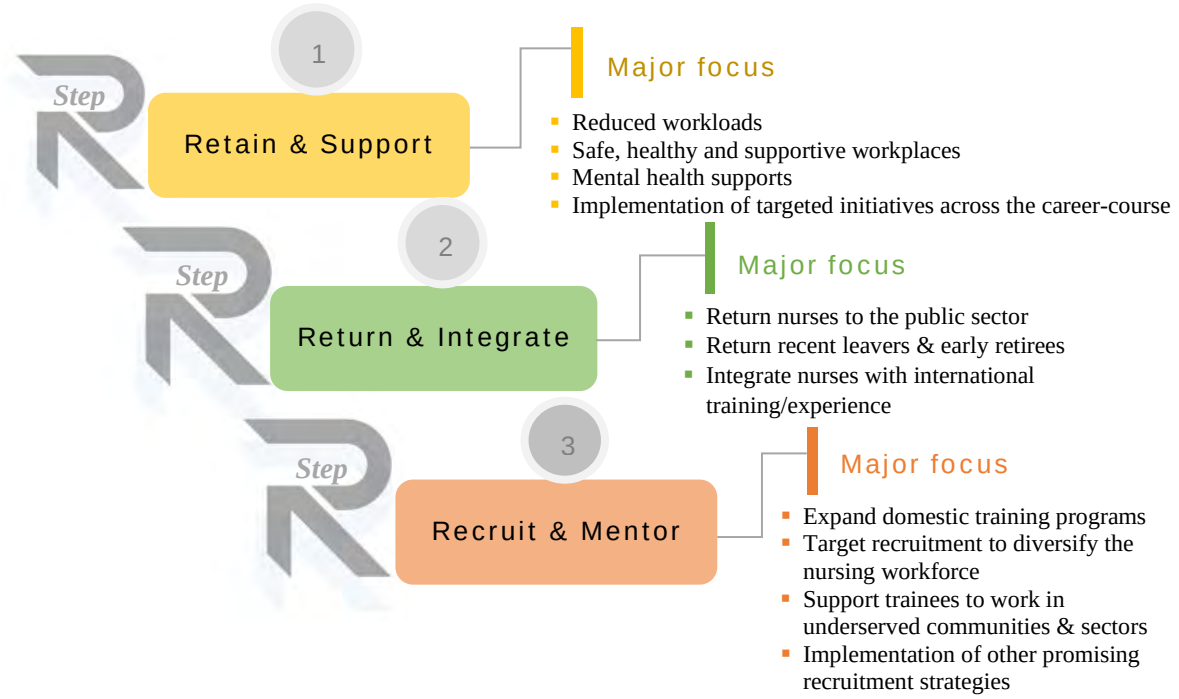
Over the past 20-plus years, report after report has detailed the toll on nursing as a result of several systemic challenges. Although the federal government and the provinces and territories have implemented a number of strategies and initiatives in the early 2000s to address nursing shortages, many of these have been ad hoc and time limited. Further, they have failed to address the systemic and intersecting nature of the challenges facing nurses, many of which are linked to poor planning for the whole of the nursing workforce.

Impacts on Nurses, Patients and the Health System

Leaving these chronic nursing workforce issues unaddressed has critical impacts beyond the nursing workforce. Patient safety, quality care, and health system sustainability are also at risk. There is extensive evidence linking the inadequacy of nurse staffing to missed care and patient morbidity and mortality. The perpetuation of these issues will worsen the current crisis, increase the health care disparities across the country, and have adverse economic impacts. Indeed, the health sector is not only critical for the services it provides, but it is also a key employment sector where over 10% of Canadians work, the largest group of which is nurses. Health spending constitutes nearly half of provincial/territorial budgets and over 8% of Canada's gross domestic product (GDP), making the lack of planning in this sector that much more egregious.

What Are the Solutions to Move Forward?

Because the global nursing workforce is also in crisis, we need to implement a coordinated series of collectively planned, carefully sequenced, and evidence-informed *made-in-Canada* solutions to this complex, multi-layered problem that starts with the ***retention*** of nurses in the workforce, fosters ***return*** of nurses who have left and considers local ***recruitment*** in that order of priority. Nurses from coast to coast to coast deserve respect and recognition of the critical role they play in the health care system. Listening to their concerns and acting on the solutions put forward are essential to addressing the crisis unfolding across our health systems.



We strategically begin with the foundational step of ***retaining and supporting*** existing nursing personnel. Many have likened the nursing workforce to a patient in critical condition who needs to be stabilized. The key strategies here include:

- reducing excessive nursing workloads;
- fostering safe, healthy and supportive work environments;
- supporting nurses' mental health; and
- implementing targeted retention initiatives, taking into consideration nurses' career course from early to mid to late career.

The next, often overlooked, step is to foster the ***return and integration*** of recent leavers and internationally educated nurses, here in Canada, whose skills are being underutilized. The key strategies here include:

- encouraging nurses to return from private agencies to the public sector;
- facilitating the return of recent and early leavers; and
- integrating nurses with international training and experience.

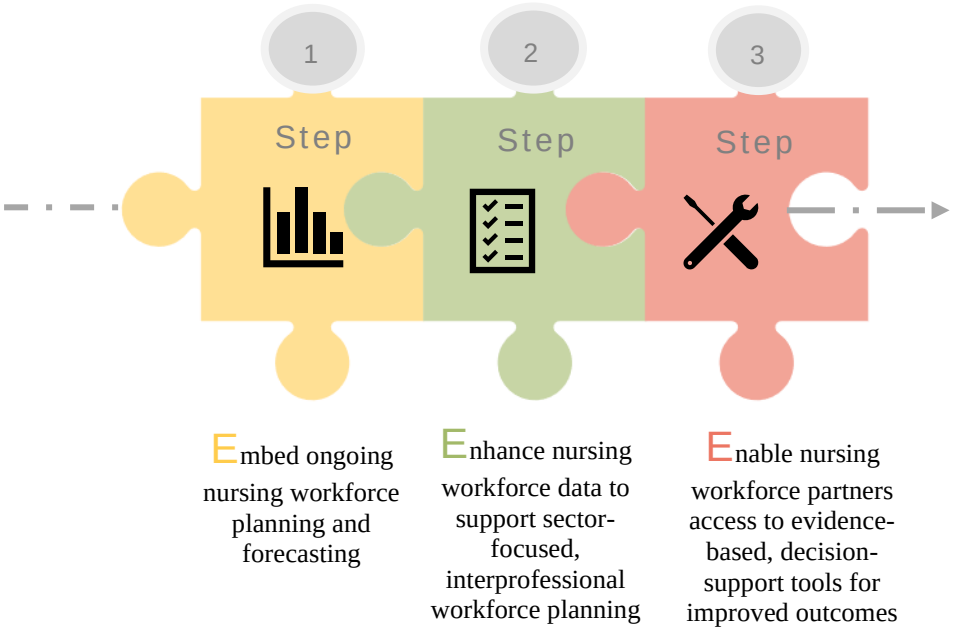
The next step is to ***recruit and mentor*** new trainees into a system that is stabilized. The key strategies here include:

- expanding domestic training programs, with targeted recruitment to diversify the workforce;
- supporting trainees to work in remote, rural and underserved communities and sectors through a range of promising recruitment incentives.

Cutting across these steps would be a fourth 'R' includes ***respect*** for nurses, including them at key decision-making tables.

Workforce Planning Will Help to Weather Future Crises

Given that the primary roots of the current crisis can be traced back to inadequate nurse and broader health workforce planning, there is a need to strategically build on the following steps:



First, ***embedding nursing workforce planning and forecasting*** into ongoing planning: since there has been no ongoing, comprehensive provincial/territorial nor pan-Canadian nursing workforce planning undertaken or made publicly available to the range of nursing workforce stakeholders for more than a decade, existing data should be utilized for planning, following leading practices.

Next, ***enhance nursing workforce data*** to support sector-focused, interprofessional workforce planning: since nurses are a critical part of a health workforce that is necessarily collaborative, it is relevant to focus on interprofessional rather than simply siloed workforce planning. A promising foundation to help support integrated planning is an inclusive, harmonized, and comprehensive health workforce minimum data standard (MDS). Integrated planning would enable stakeholders and policy decision-makers to track trends over time to inform future nursing workforce planning.

Then, ***enable access to evidence-based, decision-support tools*** to a range of nursing workforce partners for improved outcomes: it is leading practice to support stakeholders and decision-makers in producing a more robust plan of action to meet a range of potential futures through interactive dashboards. Digital decision-support tools based on enhanced data enable higher quality policy and practice decisions to sustain nursing and other health workforces across sectors and planning jurisdictions.

Building on leading practices in other OECD countries, these three steps can be best accomplished through a dedicated pan-Canadian health workforce agency tasked with developing a comprehensive, timely and accessible plan, that can forecast needs and capacity

through decision-support tools based on standardized high-quality nursing and other workforce data. Pre-existing Canadian models exist which could be adopted and adapted by the federal government to play an important coordinating role vis-à-vis key provincial, territorial, regional, hospital and education partners.

What Are the Benefits of the Proposed Solutions?

The proposed solutions to retain, return, recruit nurses combined with embedded and enhanced nursing workforce planning enabling better decision-making will together have a significant impact on the nursing workforce, patients, and health system sustainability. It can also help alleviate systemic health inequities. In this way, these integrated proposed solutions will advance the quintuple aim of health care improvement: better population health outcomes, lower costs, improved patient experience, clinician wellbeing and health equity.

Adopting a coordinated multi-faceted, stepwise and evidence-informed road map of actions will significantly help address the current crisis, setting in place measures to head off future crises and sustaining Canada's much needed nursing workforce into the future. Moreover, any investment in the nursing and health workforce also constitutes an investment in economic development and pandemic recovery.

We cannot respond to the crisis with continued inaction; it is costly to nurses, patients, the system and the economy. It is imperative that all levels of government act now.

Challenges Facing the Nursing Profession

In Canada, the nursing workforce – registered nurses (RNs), licensed practical nurses (LPNs), registered psychiatric nurses (RPNs) and nurse practitioners (NPs) – has struggled with several complex intersecting issues including chronic shortages, inadequate staffing, excessive workloads, mandatory overtime, toxic workplaces, and endemic violence[1]. A 2020 CFNU report revealed that thousands of nurses across the country screened positive for major depressive disorder, generalized anxiety disorder, posttraumatic stress disorder (PTSD) and other mental disorder symptoms including suicidal ideation.[2] The latter was related to several stressors, including high workloads and physical assault. Over four out of five nurses reported at least some symptoms of burnout, with about half indicating that the primary source of extreme stress was related to not having enough staff to cover the unit. *All these challenges predated the pandemic*.

The pandemic has not only compounded these challenges, but it has also introduced new concerns with occupational exposures, overcapacity challenges and significant moral distress. Nurses have worked millions of hours of involuntary overtime (up to five more hours per week in 2020 compared to 2019).[3] Many have been unable to take vacation or sick days, working with little or no time off. They were also often redeployed to work in areas or specialties for which they may not have had the required specialized training, exacerbating concerns about errors. The CFNU has sounded the alarm, highlighting that the situation of nurses across the country has significantly worsened since the first wave of COVID-19. According to its 2022 national survey that was conducted with 4,467 practicing nurses:

- 94% of nurses are suffering from symptoms of burnout
- 45% of nurses are experiencing severe burnout[4], up from 29% pre-pandemic[5].

Feeling frustrated, overwhelmed and lacking little work-life balance or control over the way they practice their profession, many nurses have left and many more are contemplating leaving full-time positions. Some are shifting to casual or part-time work, while others are choosing to work in the private sector, in temporary nursing agencies, or leaving the profession altogether. According to 2022 CFNU's national survey, more than half of nurses are considering leaving their current job within the next year. Within this group:

- 59% of early-career nurses, 56% of mid-career nurses and 20% of late-career nurses are considering leaving their current job within the next year.
- 19% of nurses are considering leaving the profession altogether.
- 41% of nurses who suffer from clinical symptoms of burnout are more likely to say they are considering leaving the nursing profession altogether[6].

In addition, based on the data released by Statistics Canada, there were:

- over 34,000 nursing vacancies (excluding NPs) and 126,000 health care and social assistance sector vacancies - an all-time high - in the fourth quarter of 2021.
- in the two years between the fourth quarters of 2019 and 2021, nurse vacancies increased by 133%.[7]

This leaves those remaining in the profession with little hope unless there is clear, coordinated, and decisive action to change the conditions causing this dire situation.

Impacts on Nurses, Patients and the Health System

There is considerable evidence indicating that leaving these chronic nursing issues and concerns unaddressed erodes the safety and quality of the care provided to patients, residents and clients. High levels of burnout and job dissatisfaction due to insufficient nurse staffing prevent nurses from providing the highest quality of care. Missed care, for example, is an important indicator of insufficient nurse staffing both in acute care and nursing homes[8]. In addition, evidence shows that there is a clear association between inadequate nurse staffing and patient mortality,[9] indicating that the risk of mortality may increase by 2% with each nurse missing from a full shift complement.[10] By contrast, data show that patients' complications and length of hospital stay decline when there is sufficient nurse staffing, saving costs and improving national productivity.[11]

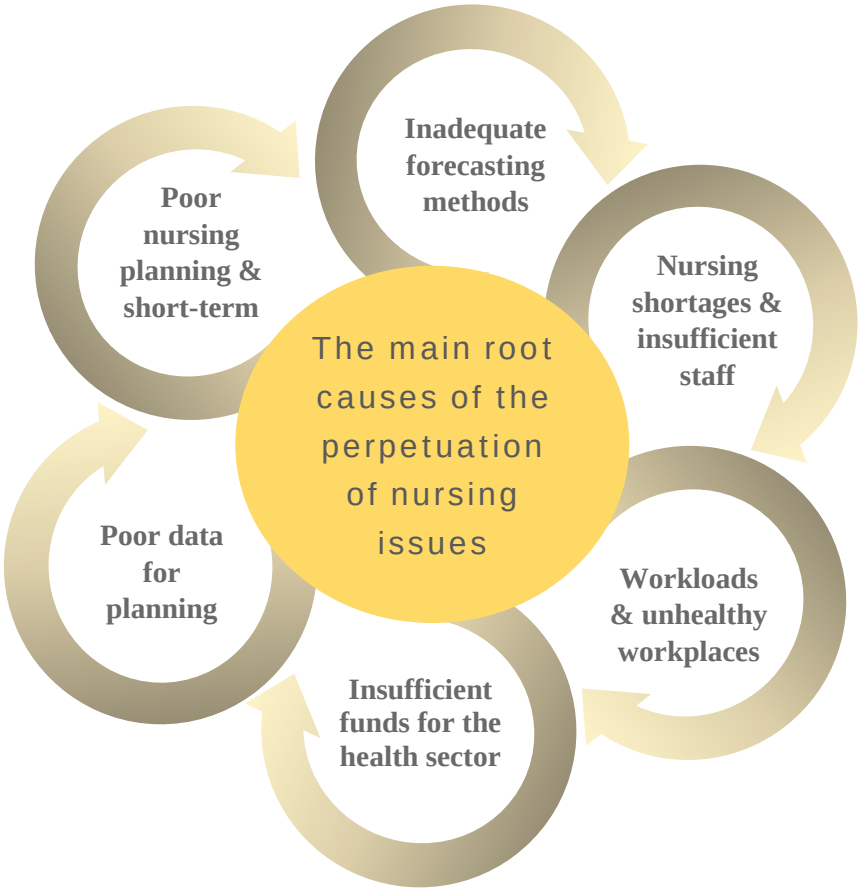
The perpetuation of these issues has adverse economic impacts on the health care system. The health sector is not only critical for the services it provides, but also a key employment sector where over 10% of Canadians work, many of whom are nurses. Health spending constitutes nearly half of provincial/territorial budgets and over 8% of Canada's GDP, making the lack of workforce planning that much more egregious.[12] Any investment in the nursing and health workforce also constitutes an investment in economic development and pandemic recovery.

> ***Canada's nurses are sounding the alarm: if we don't act urgently on nursing and health worker shortages, we risk a system-wide failure of our treasured universal public health care system.***
>
> **— Linda Silas, president, Canadian Federation of Nurses Unions**

How Did We Get to This Point?

Over the past 20-plus years, report after report has detailed the toll on nursing in Canada as a result of a number of systemic challenges including insufficient seats and faculty in nursing programs, the limited availability of full-time jobs, high rates of nursing attrition due to heavy workloads, involuntary overtime, job dissatisfaction, burnout, absenteeism, violence, and insufficient funding. There has been a lack of focus on nursing retention across the career path, and on the aging nursing workforce, among a host of other complex intersecting factors.[13] *Figure 1* (see below) illustrates some of the overlapping root causes that have led to the perpetuation of nursing workforce challenges in Canada.

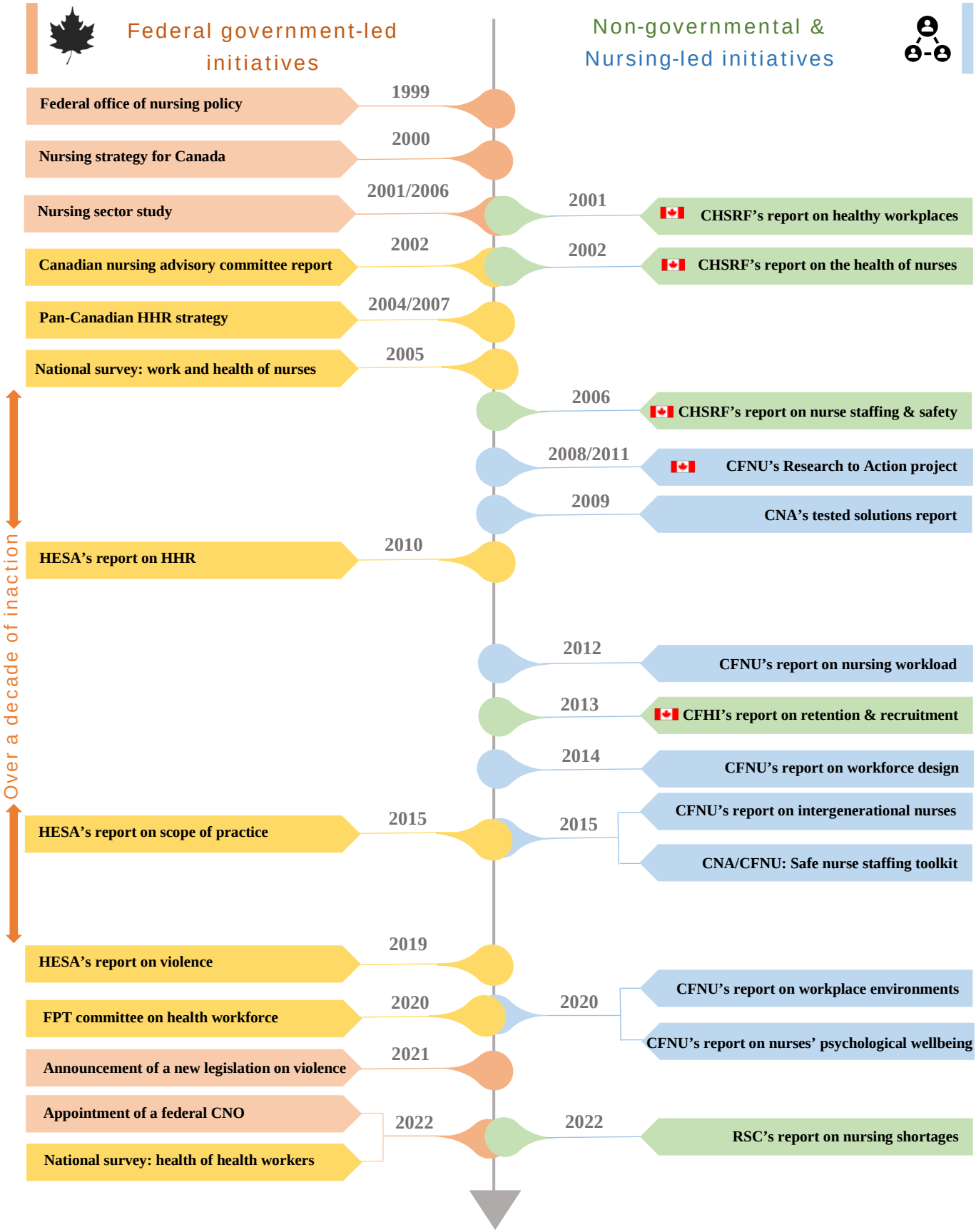
Figure 1. **The main root causes of the perpetuation of nursing issues in Canada**



Although the federal government supported the provinces and territories in implementing a number of strategies and initiatives in the early 2000s to address nursing shortages *(Figure 2)*, many of these efforts were ad hoc, time limited and lacked a coordinated plan for scaling promising practices. Further, they failed to address the systemic and intersecting nature of the challenges facing nurses, many of which are linked to the lack of robust and ongoing planning for the whole of the nursing workforce across jurisdictions and across nurses' life course.

> ***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.***[14]
>
> **— Advisory Committee on Health Delivery and Human Resources, 2007, p. 5**

Figure 2. **Key pan-Canadian nursing workforce initiative & reports, 1999 to 2022**



Note: for the governmental initiatives, ***Reports & Studies*** are indicated in ***Actions*** are indicated in
The non-governmental initiatives are indicated in and the nursing-led initiatives in
The Canadian flag indicates initiatives funded by Health Canada
CFNU: *Canadian Federation of Nurses Unions;* ***CNA:*** *Canadian Nurses Association;* ***CHSRF:*** *Canadian Health Services Research Foundation;* ***HHR:*** *Health Human Resources;* ***HESA:*** *House of Commons Standing Committee on Health;* ***CFHI:*** *Canadian Foundation for Health Improvement;* ***CNO:*** *Chief Nursing Officer;* ***RSC:*** *Royal Society of Canada.*
[CHSRF became CFHI which is now Healthcare Excellence Canada [HEC]]

In 1999, the federal Office of Nursing Policy was established to give nurses and nursing stakeholders a dedicated office and staff to inform and support nursing policy decision-making.

The Nursing Strategy for Canada was launched in 2000, followed by the 5-year Nursing Sector Study (2001-2006). The Nursing Sector Study, which was composed of two phases, aimed to develop long-term strategies designed to ensure an adequate nursing supply to meet the population's needs. Phase 1, which went until 2004, explored the state of the nursing workforce in Canada, including nursing mobility, the international labour market, and nursing education in Canada, resulting in 15 technical research reports. Phase 2 began in 2005 with the aim of developing a national nursing human resource strategy, in consultation with government and non-governmental stakeholders, building on the findings and recommendations from phase 1.

A parallel Canadian Nursing Advisory Committee issued its report in 2002, and from October 2005 to January 2006 the first ever National Survey of the Work and Health of Nurses (NSWHN)[15] was conducted jointly by the Canadian Institute for Health Information (CIHI), Statistics Canada and Heath Canada. The study included more than 18,000 nurses. The Canadian Nursing Advisory Committee recommended that the NSWHN be repeated annually but it was never repeated.

These nursing-focused efforts aligned with the broader health workforce initiatives the federal government led during this period including the Pan-Canadian Health Human Resources (HHR) Strategy (2004-2005 and updated in 2007-2008). Out of the strategy, several federally funded health workforce initiatives were launched in 2009 and 2010. These involved increasing the number of different cadres of health workers, using health worker skills more effectively, creating healthy, supportive and learning workplaces, more effective planning and forecasting, and an internationally educated health professionals' initiative. Some of the initiatives focused on the nursing workforce, including the CNA-led NurseONE/INF-Fusion: The Canadian Nurses Portal and the CFNU-led Research to Action (RTA) project (Box 1).[16]

Box 1: The Research to Action Project

The CFNU engaged in a multi-stakeholder initiative from 2008-2011 involving nurses' unions, employers and provincial ministries in its Research to Action (RTA) project with funding from Health Canada. Strong partnerships and buy-in from health authorities, employers, as well as from frontline nurses provided a potential model for retention and recruitment going forward. According to the evaluation, the nine provincial and one territorial pilot projects were "effective at improving work environments in support of the retention and recruitment of nurses," "significantly strengthened the level of collaboration between key stakeholders at the national, provincial and local levels," and were "sustainable and transferable with the appropriate resources and buy-in."[17] Bringing these promising initiatives to scale remained elusive once the funding ceased.

Paralleling federal efforts led by Health Canada, the House of Commons Standing Committee on Health (HESA) studied and issued a report in 2010 which recommended the establishment of a health human resources (HHR) observatory to "promote research and data collection on HHR; serve as an effective knowledge translation mechanism; and identify key priorities for future research." None of its recommendations were implemented. A second study undertaken by HESA in 2015 addressed the federal role in the scope of practice of health care workers in Canada. Its recommendations called for the federal government to work in collaboration with provincial and territorial governments and other interested stakeholders to assess health workforce planning challenges, facilitate the sharing of best practices and planning data, and encourage Pan-Canadian harmonization of scopes of practice. These recommendations were also not implemented. A third study undertaken by HESA in 2019 made several recommendations to address the rising levels of violence facing health care workers, many of which are yet to be fully implemented. Importantly, in 2021, the federal government made some modifications to the *Criminal Code of Canada* to protect health care workers from violence and intimidation.[18]

Nursing stakeholders did not remain silent during these years of federal government inaction. In the absence of an integrated, pan-Canadian approach to health workforce planning, the CNA commissioned a report in 2009 on the nursing human resources landscape. *Tested Solutions for Eliminating Canada's Registered Nurse Shortage* provided new projections on nursing shortages taking into consideration the changing health needs of the Canadian population. The report predicted that Canada would be almost 60,000 nurses short by 2022 if no new solutions were put into place.[19] No update or comprehensive nursing workforce planning has been undertaken by the government since that time.

The CFNU also commissioned reports on a range of critical topics including nursing workload (2012),[20] workforce design (2014),[21] early-, mid-, and late-career nurses' career expectations and needs (2015),[22] as well as on the occupational stress injuries experienced by nurses, such as posttraumatic stress disorder, major depressive disorder, general anxiety disorder and panic disorder (2020).[23] In 2015, CNA and CFNU co-created an online interactive safe nurse staffing toolkit, composed of four modules that aim to promote safe nurse staffing in order to enhance the quality and safety of patient care. These four modules were designed to improve the knowledge and skills of both nurses and nurse managers and provide them tools to address patient safety issues and nursing practice gaps and concerns.[24]

CFNU's most recent partnership with the Canadian Health Workforce Network (CHWN) focuses on a comprehensive review of the evidence to address these systemic nursing workforce concerns, curating critical short- and medium-term evidence-informed solutions that could be undertaken by a range of stakeholders to better sustain a healthy nursing workforce across all jurisdictions (Box 2).

Box 2: The CHWN-led rapid review of nursing workforce solutions

CHWN investigators conducted a rapid review of the existing literature on nursing workforce concerns, initiatives, planning activities, data quality, and sufficiency to better understand the barriers and facilitators to nurse workforce sustainability across Canada. Three complementary data sources inform this analysis: (1) an environmental scan and review of the academic and policy literatures, (2) individual and group interviews and a policy dialogue with key nursing stakeholders held May 25th, 2022, and (3) a survey completed by chief negotiators of CFNU member organizations between July and August 2022. Based on these data a set of short- and medium-term reactive and proactive solutions that could be undertaken to contribute to the sustainability of the nursing workforce across Canada.

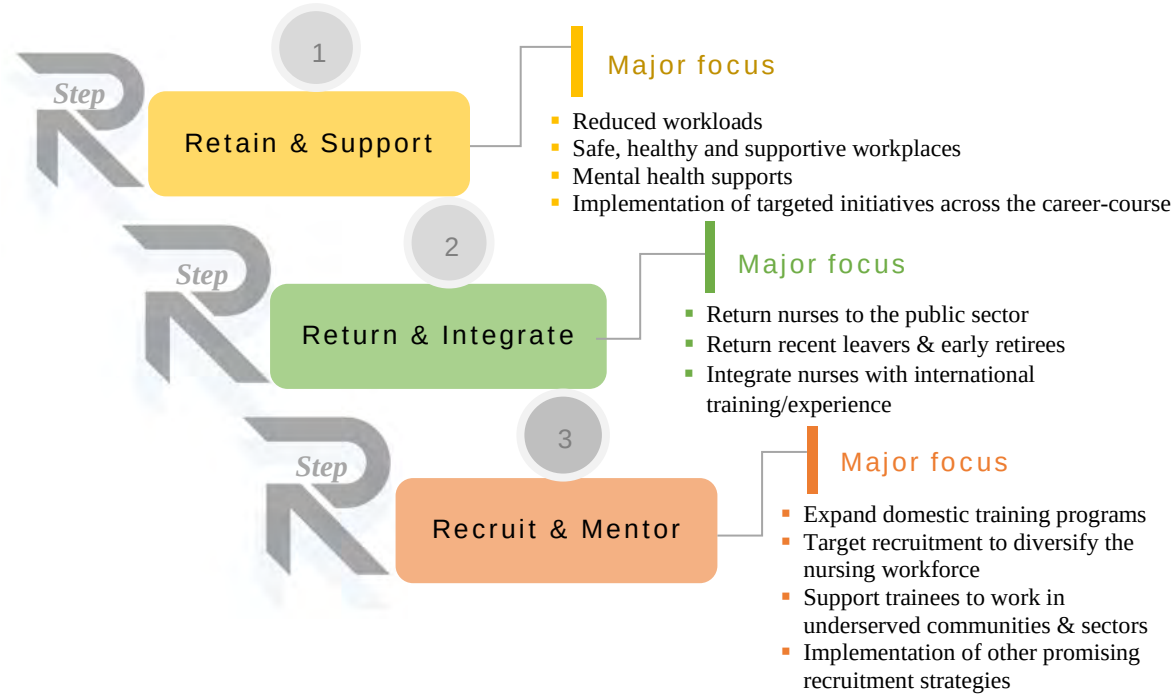
See Appendix for details

> ***Maintaining effective retention of nurses should be the cornerstone of an effective nurse workforce strategy. Keeping scarce and vitally skilled staff for as long as possible is a more effective, and less costly organisational response than having to replace them. … Improved retention of nurses must be a key policy goal of any health system that hopes to "build back better" and must be combined with a broader approach to supporting nurse workforce sustainability.***[25]
>
> **— International Council of Nurses, 2022, p.46-47**

Globally, we know the nursing workforce is also in crisis. The International Council of Nurses (ICN) in partnership with the International Centre on Nurse Migration (ICNM) and the Commission on Graduates of Foreign Nursing Schools (CGFNS) detailed how COVID-19 has worsened the nursing workforce crisis and the pre-existing deficiencies of our health systems (e.g., nursing understaffing and resource limitations).[26] This has resulted in an increase in nurses' mental disorders, workload, and the incidence and risk of infection. In the ICN's 2021 report[27], it estimated that more than 13 million nurses will be needed to respond to the global nursing shortage gap. Focusing extensively on international recruitment raises ethical concerns regarding the equitable distribution of the nursing workforce between high- and low-income countries according to the report, not in keeping with the spirit of the 2010 WHO Global Code of Practice on the International Recruitment of Health Personnel.[28] The maldistribution and underutilization of these much needed resources may have negative impacts on achieving universal health care in all countries, making this a "transnational social justice matter" (p. 250).[29]

We are going to need a series of evidence-informed *made-in-Canada* solutions to this complex, multi-layered problem that start with retention, foster return and consider local recruitment in that order (*Figure 3*). Indeed, we suggest investing in the in-country internationally educated nurses (IENs) and encouraging Canada to reduce the active recruitment of nurses from low-income countries which are already facing critical shortages.

Figure 3. **Three critical Rs of nurse workforce sustainability: retain, return & recruit**



What Are the Multi-layered Solutions to Move Forward?

We strategically begin with the foundational step of *retaining and supporting* existing nursing personnel. Many have likened the nursing workforce to a patient in critical condition who needs to be stabilized. The key strategies referenced here include reducing excessive nursing workloads, fostering safe and supportive work environments, supporting nurses' mental health and implementing targeted retention initiatives taking into consideration nurses' career-course from early to mid to late career. The next, often overlooked, step is to *return and integrate* recent workplace leavers and internationally educated nurses here in Canada whose skills are being underutilized. The key strategies referenced here include encouraging nurses to return from the private to the public sector, facilitating the return of recent and early leavers and re-integrating nurses with international training and experience. The next step is to *recruit and mentor* new trainees into a system that is stabilized. The key strategies referenced here include expanding domestic training programs to target recruitment to diversify the nursing workforce, supporting trainees to work in rural, remote and underserved communities and health sectors through a range of promising recruitment incentives.

Cutting across these steps would be a fourth 'R' includes ***respect*** for nurses, including them at key decision-making tables.

In the sections that follow, we map out each of the intersecting elements of a multi-faceted, evidence-informed set of solutions.

STEP 1: Retain & Support

1. Reduced Workloads

Workload corresponds to the number and volume of direct or indirect tasks and activities that nurses are expected to perform in the time allocated for the work to be done. The activities encompass both the nursing duties, including direct care, indirect care (e.g., medication management, charting) or both, and the non-nursing duties that may cover all the administrative works (e.g., unit management, staff meetings, attending educational and other professional development activities, etc.).[30] Excessive workload is one of the top chronic issues that has been burdening the Canadian nursing workforce since the 1990s.[31] Based on the nursing research literature, we suggest the following solutions to respond to this issue:

1.1. A legislated minimum nurse-to-patient ratio (NPR)

Legislated minimum nurse-to-patient ratio policies are a leading international practice that has demonstrated benefits in reducing nursing workloads especially in acute care settings.[32] Extensive evidence shows that adopting safe nurse-patient ratios has significantly contributed to reducing excessive nursing workloads, ensuring their safety, and thus, allowing patients to receive safe and high-quality care services.[33] This promising solution may stabilize health work teams and foster the retention of nurses.[34] In determining appropriate staff scheduling, annual base staffing calculations should take into consideration the projected human resource requirements, including vacation, family responsibilities, and professional development. After recent negotiations with the *Fédération Interprofessionnelle de la santé du Québec (FIQ)*, Quebec implemented NPR in different health care settings to respond to the issue of the excessive workloads in 2018.[35] This is a promising initiative that could be scaled. FIQ stated:

> ***Ratios are a strong measure to attract and retain staff. The population has been invited to sign a plea demanding a law on safe ratios in the health sector in Quebec.***

1.2. A legislated minimum care standard

The implementation of a legislated minimum care standard is a promising policy to decrease excessive workloads in non-acute health care settings where NPR is not feasible. For example, within long-term care settings, a minimum standard of 4.1 hours of direct care per resident per day has been proposed, with care hours increasing depending on the complexity of residents.[36] Nursing research documents that the implementation of a minimum standard of care has significant benefits for nursing practices (e.g., improving nurses' performance, providing safe and competent care)[37] and resident health and quality of life indicators.

1.3. Increasing float team/pool capacity

Considerable evidence attests that a float pool is a cost-effective solution that offers significant savings to organizations through less reliance on overtime and contract labor.[38] This can be achieved when we invest in allocating resources and coaching float team members to better practice to their full potential.[39] They need training to ensure they can work competently and confidently across different units. This solution has been shown to positively contribute to improving the quality of teamwork and patient care along with the satisfaction and retention of nurses.[40] Health care organizations should invest in increasing and building a cohesive and highly skilled float pool team to support nursing staff.

1.4. Implement a support team to reduce non-nursing duties

Sustain the nursing workforce by implementing a support team within health care organizations to reduce non-nursing duties. Relieving the burden of performing non-nursing duties is one of the leading practices that may foster nurse retention.[41] Employers should invest in hiring a range of health care workers (including clerks, administration, cleaners, etc.) to reduce non-nursing tasks and maximize nurses' scope of practice.[42] Many nursing stakeholders advocate for supporting nurses by hiring health care workers to reduce non-nursing duties:

> ***I think there needs to be an evolution with organizations, particularly some units that are not utilizing PSWs [personal support workers] within their model of care. You know, I've been in a situation where I've had to advocate for a whole year, so 12 months, for PSWs to be included in the model of care delivery.***
>
> **— Nursing stakeholder participant, dialogue policy, May 25th, 2022**

1.5. Evidence-based tools and processes to address heavy workloads

Adopt evidence-based tools or processes to systematically identify workload issues within their organizations as a first step towards a workload reduction strategy. The following *table* presents some examples of the tools and processes that have been recommended by key nursing stakeholders who have participated in our dialogue policy.

Table 1. Evidence-based tools and processes

Professional responsibility workload report form	This is a promising tool negotiated in Ontario that can be used to report nursing workload and patient safety issues in hospitals. Similar professional practice workload tools exist within other collective agreements across Canada.[43]
The patient care assessment process (PCAP)	This tool, negotiated in British Columbia, can be utilized to manage nursing workload and maintain safe patient care, allowing employers to determine patients' care needs and the appropriate staffing required to respond to their assessed needs.[44]
Monitor six safety CLUEs (Care left undone events)	This process can be integrated into IT workload management systems to assess, escalate and respond to missed or unmet care events to determine the adequacy of the nursing resources.[45]
Core staffing review	This process negotiated in Newfoundland and Labrador can be utilized to analyze the existing core staffing methods to assess the nursing workload and skills mix and provide solutions and concrete actions for improvement going forward.[46]

1.6. Synergy professional practice model

Implement workload management models like the synergy professional practice model to better align patient care needs with nursing competencies to reduce excessive workloads. Nurses may use the synergy tool, a patient needs assessment tool derived from this model, to inform staffing decisions with respect to skill mix in a timely way. Evidence has documented the effectiveness of this tool in improving workload management in diverse care settings.[47]

One academic expert in the field stated that the synergy tool has been used in British Columbia, Saskatchewan and Ontario:

> ***The Synergy model patient characteristics tool, also known as the "synergy tool," is a validated assessment tool that nurses complete after their primary assessments of patients/clients/residents. The tool has eight characteristics; five are acuity-based and three are based on patient dependency needs, such as assistance of daily living. This tool is considered a holistic, patient-centered assessment tool that can be easily adapted to different healthcare settings. Once patient needs are known, nurse staffing (skill mix, staffing levels) can be determined objectively in a patient-centered fashion.***
>
> **— Nursing stakeholder participant, dialogue policy, May 25th, 2022**

2. Foster Safe, Healthy and Supportive Work Environments

Thousands of Canadian nurses have been facing physical and verbal abuse, along with incivility in their work environments. A 2020 CFNU national study[48] revealed that physical assault was the most reported type of trauma exposure, affecting 92.7% of nurses. National and international research in nursing highlights that unhealthy work environments have negative impacts on nurses, leading to poor care services.[49] To foster safe, healthy and supportive workplaces, we suggest the following solutions:

2.1. Foster workplaces free of violence and bullying

Promoting a respectful and safe environment is a shared responsibility to prevent adverse outcomes for workers, clients, and organizations.[50] This includes raising public awareness about violence against health care workers through a national campaign and a pan-Canadian prevention framework as recommended by HESA in 2019.[51] In addition, to help prevent workplace violence the number of available security personnel should be increased and specialized training for security should be provided, along with standardized protocols for reporting and responding to workplace violence when it occurs.[52]

2.2. Implement the psychological health and safety in the workplace standard

Research has shown that the standard is beneficial in creating healthier and more productive workplaces.[53] Employers should adopt and implement this standard to promote their employees' psychological safety within their health care organization.

2.3. Build caring work environments

Employers should adopt policies to foster caring interpersonal relationships between nurses, nurse managers, other health care professionals, patients and their families. Evidence has shown

that this fosters engagement, empowerment, and nurse satisfaction, increasing feelings of inclusion and retention.[54]

2.4. Provide appropriate and sufficient access to personal protective equipment (PPE)

Since the first wave of the pandemic in 2020, nurses have been on the frontlines to care for patients and their families, educating the public on how to prevent transmission, and putting their lives at risk with limited resources for protection and training.[55] It is imperative to provide health care organizations with sufficient, appropriate and accessible PPE (e.g., fit-tested NIOSH-approved N95 respirators or higher levels of protection such as powered air-purifying respirators [PAPR] or elastomeric respirators). Evidence has shown that PPE can protect nurses and health care workers and reduce the risk of COVID-19[56] or other airborne vectors.

3. Embed Mental Health Supports

Many nurses are suffering from stress, depression, and burnout. As noted above, the recent CFNU survey released alarming findings, highlighting that 94% of nurses are suffering from symptoms of burnout, and 45% of them are experiencing severe burnout, up from 29% pre-pandemic.[57] There is an urgent need to pay more attention to the mental health and well-being of nurses across Canada[58]. In this regard, we suggest the following evidence-based solutions:

3.1. Dedicate mental health days

Employers should be aware of the negative outcomes of critical incidents on nurses' mental health and promote their wellbeing by providing them time off to re-energize and the time and space to integrate self-care into their schedule, advocating for them and facilitating access to mental health services.[59] Most of the stakeholders who have participated in our policy dialogue underscored the importance of addressing nurses' mental health.

> ***I think that attention to support for nurses' mental health and well-being, in the current system, is critical because where we're seeing the highest number of individuals with expressed intent to leave or being forced into mental health leave of absence ... it's alarming to think that we would move forward with any initiative without addressing the lack of mental health support for nurses, and instituting some support for them immediately ... giving people one day off versus forcing them into taking a six month leave of absence. I think it's really critical!***
>
> **— Nursing stakeholder participant, dialogue policy, May 25th, 2022**

3.2. Embed peer-support programs (PSP)

These programs aim to provide health workers who are experiencing emotional distress with non-clinical emotional support from their peers.[60] For example, Schwartz Rounds are a relevant peer-support program which offer health care staff a safe space to come together to reflect on the emotional impact and the realities of their work by sharing their experiences through storytelling. Schwartz Rounds have been proven to increase emotional resilience, empathy and compassion for oneself and others, improve teamwork and organizational change.[61]

3.3. Make accessible targeted internet-based cognitive behavioral therapy (iCBT)

To foster Canadian nurses' retention, it is imperative that sustainable mental health programs be implemented to support nurses' wellbeing, especially those who work in rural and remote areas. Evidence shows that iCBT is a flexible, accessible, and cost-effective online program, which has contributed to improve individuals' well-being.[62]

3.4. Embed wellness programs

Resourcing nurses with different mental health support programs is fundamental to helping them manage their professional stress. Evidence shows that wellness programs provide significant positive outcomes for nurses, improving their wellbeing and enhancing their job performance.[63]

4. Implement Targeted Retention Initiatives across the Career-Course

Retaining nurses across the career continuum (i.e., early-, mid- and late-career) is challenging. Each generation has its own characteristics and expectations towards work.[64] In this regard, the implementation of evidence-based retention programs targeted at nurses across the career-course is an asset for the sustainability of the nursing workforce.

4.1. Transition new graduate nurses

4.1.1. Offer nurse residency programs (NRP)

New graduate registered nurses require support to better enter the clinical settings and practice in a safe manner.[65] The NRP is a supportive strategy designed to facilitate new nurses in their transition to clinical settings to increase their engagement and retention within the nursing profession.[66] The NRP is a structured and comprehensive program (generally varies from 3 to 18 months) that incorporates formal education and clinical support by a qualified preceptor/mentor to allow new graduates to expand their knowledge and develop their nursing competencies.[67] Evidence highlights that the NRP may successfully contribute to nurses' retention[68] and offer a cost-effective innovative approach compared to more traditional approaches.[69] The Canadian Association of Schools of Nursing (CASN) has recently developed a national six-month Competency-Based Residency Program for health care organizations to support new registered nurses and respond to the current nursing shortages across Canada.[70]

4.2. Support continuing nursing education and enable career laddering

4.2.1. Facilitate access to continuing education

Considerable evidence highlights the importance of continuing education to foster nurses' professional development and contribute to their retention. This could include providing opportunities to transition from LPN to RN, and from RN to NP, as well as taking on new skills within a current role. Governments and employers can support nurses by offering training opportunities to enhance their knowledge and skills through free or subsidized tuition, fast-tracked programs, flexible work schedules, accommodation of time off requests, bridging programs, workplace-based training opportunities, and online learning.[71]

4.2.2. Implement mentorship programs across the career course

Offer online or workplace-based mentorship opportunities for new graduate, mid- and late-career nurses to foster their retention and support them through their career pathway. Research has highlighted that mentorship programs are an effective and essential strategy that has clear benefits in creating a healthy workforce and retaining nursing staff.[72]

4.2.3. 80/20 professional development model

This model allows nurses to spend 80% of their salaried work time in direct patient care and 20% of their time on professional development activities (e.g., participate in leadership development or research proposal-writing workshops, attend conferences). The evaluation of this strategy showed that nurses are satisfied to have more time dedicated to participating in professional development activities and indicated that the model has various positive outcomes, including a reduction in sick time, overtime hours and turnover rates.[73] This promising strategy is highly recommended by many key nursing stakeholders who have participated in our policy dialogue.

> ***The 80/20 model is an excellent way to keep mid- to late-career nurses, or those who have maybe chosen early retirement, bring them back in the system.***
>
> **— Nursing stakeholder participant, dialogue policy, May 25th, 2022**

4.3. Support nurse leadership training

4.3.1. Leadership and management for nurses program

This is an interactive learning strategy that can be offered two full days per month within a period extending over four months. It is recommended to foster the retention of nurse leaders across all sectors by offering them professional development programs to enhance and

consolidate their knowledge and skills in leadership, and to help them gain more confidence in their managerial roles.[74]

4.4. Support late-career nurses

4.4.1. Offer pre-retirement full-time equivalent (FTE) reduction program

This program was introduced in Alberta to offer late-career nurses an opportunity to reduce their FTE before their retirement without having negative impacts on their pension. This resulted in positive outcomes for nurses who reported having more time, more energy and more stability during their work resulting in their ability to provide better care services.[75]

4.4.2. Offer more flexible scheduling

Offering late-career nurses flexible scheduling is supported by evidence that older nurses appreciate having more control over their shift scheduling and the number of days worked.[76]

4.4.3. Scale the late-career nursing initiative (LCNI)

This Ontario initiative was designed to retain older nurses, aged 55 and over, by reducing their physically or psychologically demanding tasks, enabling them to provide high-quality patient care. Overall, participating nurses reported positive perceptions regarding their managers' ability, leadership and support along with their intention to participate in hospital affairs within their organization.[77]

4.4.4. Scale the seasonal part-time position program

This initiative was introduced in Alberta and gives nurses the option to designate a period in which they work (e.g., winter or summer). The program evaluation showed positive outcomes, indicating that nurses were very satisfied with the hours they worked and their organizational leadership, as well as with their work-life balance.[78]

4.4.5. Support succession planning

This strategy provides an opportunity for employers to discuss with late-career nurses their retirement plans and goals and support them if they would like to continue working and using their nursing knowledge, skills, and experiences to enrich patient care services.[79] The nursing literature has proven that succession planning strategy is a viable best practice to sustain the nursing workforce.[80]

STEP 2: Return & Integrate

1. Return Nurses to the Public Sector

Intricately connected to the poor work conditions within many public health care organizations, nurses are quitting to work in private agencies where they may receive higher wages and greater control over their working hours.[81] To foster nurses' return to the public sector and back to work in health care more broadly, federal, provincial and territorial governments should allocate resources to health care organizations to undertake the following:

1.1. Improve working conditions through a Magnet-like accreditation program

Magnet hospitals are classified as the gold standard for excellence in nursing practice in the United States. They are characterized by five major features: 1) effective nursing leadership; 2) shared governance, including nurses' direct involvement in decision-making; 3) respectful and collegial interpersonal relationships; 4) professional development opportunities; and 5) staffing and resource adequacy. Extensive evidence has highlighted the effectiveness of this program in enhancing the organizational culture for nurses, attracting them and increasing their job satisfaction and engagement within their organization.[82] Mount Sinai Hospital in Toronto was the first Canadian health care organization to achieve Magnet designation.[83] Furthermore, one of our key stakeholders who has expertise in Magnet-like environments stated:

> ***I study those factors that are associated with Magnet-like work environments ... and I know what a difference that can make. One of my goals has been to bring those Magnet-like factors to the Canadian work context.***
>
> **— Nursing stakeholder participant, dialogue policy, May 25th, 2022**

1.2. Improve wages and benefits

Offering competitive wages and benefits is a significant factor in fostering nurses' motivation and job satisfaction. Providing wages commensurate with skills, effort, responsibility and working conditions helps ensure positive nurse outcomes.[84]

1.3. Scale the nursing education initiative (NEI)

This educational grant program was introduced in Ontario and designed to provide all nurses access to continuing education and professional development opportunities. It allows nurses to reimburse their tuition fees related to their registration for a course, conferences, seminars as well as workshops that they would like to attend to improve their knowledge and skills.[85] The NEI is one of the programs that were supported by employers and nurses to continue. It even expanded its application to all other health care sectors including primary care, home health care and long-term care facilities, among others.[86]

1.4. Create a public agency for mobile nurses

To address the urgent but temporary needs for nurses to shore up services in some jurisdictions, sectors and facilities, a public workforce agency could employ mobile nurses and other licensed health workers. In the Rural Roadmap developed by the College of Family Physicians of Canada and the Society for Rural Physicians of Canada, they proposed a Canadian rural medicine service to provide a skilled workforce ready and able to work across provincial and

territorial jurisdictions, enabled by the creation of a special national locum licence designation.[87] Integrating nurses into such a service, not only in rural and remote locations, was noted by stakeholders as a promising approach.

2. Return Recent Leavers and Early Retirees

Failure to implement effective long-term strategies led many nurses, who work in public organizations, to leave their jobs and the nursing profession altogether. A 2022 CFNU national survey indicated that 27% are looking for a different nursing job, 19% are intending to leave the profession, and 7% are thinking of retiring.[88] The intention to leave their current job is more common in early-career nurses compared to others. Based on the nursing literature and our policy dialogue with key experts, we suggest the following solutions:

2.1. Support a flexible return-to-practice program

Offer flexible return-to-practice programs to encourage recent leavers and early retirees to return to work. Evidence has shown that having more flexibility in the design and the delivery of this kind of program encouraged many nurses to return to work.[89]

2.2. Provide mentorship and preceptorship opportunities as return-to-work strategies

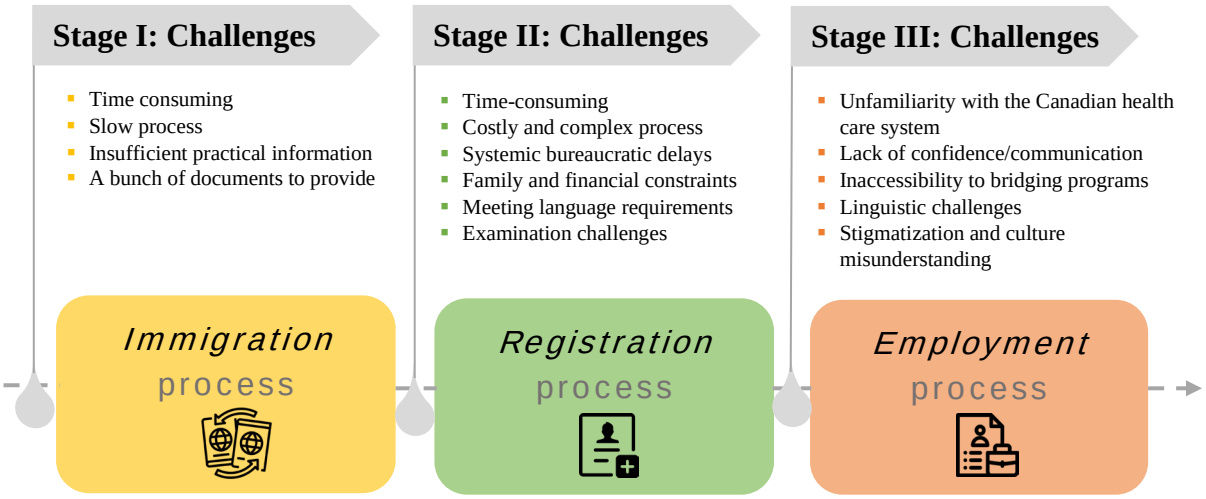
Provide recent leavers and nurses who have retired early with opportunities to return to work through mentorship and preceptorship programs to upgrade their knowledge, skills and expertise in support of their return to practice.

3. Integrate Nurses in Canada with International Training/Experience

Identified as "an untapped source of nursing resources," [90] potentially thousands of internationally educated nurses (IENs) already living in Canada are unemployed or underemployed, struggling with the complex, costly and time-consuming registration process preventing them from using their expertise and knowledge to work in Canada as nurses.[91]

Figure 4 (see below) illustrates the challenges that IENs face along their pathway from immigration to licensure recognition to employment.

Figure 4: Immigration, registration and employment challenges faced by internationally educated nurses along their pathway to integration



To help address these challenges, the federal government, in collaboration with provincial/ territorial regulatory authorities and other stakeholders in the IEN licensure and integration process, should work to facilitate credential recognition, registration and the employment process through:

3.1. Fast-track the immigration process for IENs in Canada

A number of federal, provincial and territorial immigration programs exist to support IENs who live inside Canada such as the Federal Skilled Worker Program (FSWP) and the Provincial Nominee Program (PNP).[92] In 2021, the government of Canada announced a temporary public policy to enable foreign nationals who work in essential occupations (including nursing) in Canada, outside of Quebec, to get their permanent residency in a shorter period.[93] This new program – Temporary Resident to Permanent Resident (TR to PR) Pathway – could be expanded to provide a faster process to IENs who are already in Canada.

3.2. Streamline the registration process

The major barriers to IEN registration are related to the multi-layered process involving several organizations, which can lead to prolonged and expensive processing times, discouraging IENs to continue their registration process.[94] Except for Quebec, IENs who plan to work as a nurse in the rest of Canada must begin the registration process by completing an application with the National Nursing Assessment Service (NNAS), which includes several documents; this process often takes one year. Once through this process, an IEN may apply for a licence as LPN, RN, or RPN in a province of their choice.[95] Often IENs must resubmit similar documents previously submitted to the NNAS to the regulatory bodies, a process which could be streamlined reflecting the role of each organization in the registration process.[96] There may be an additional requirement (and associated costs involved) of attending a bridging program offered online or in person with collaborating colleges and universities. One example to expedite the process is the Manitoba government's funding to support IENs by covering costs associated with

certification and ordering the College of Registered Nurses of Manitoba to allow IENs already licensed in other jurisdictions to work in Manitoba.

3.3. Facilitate the employment and integration process

IENs should be considered a rich and valuable resource to contribute to the diversity of the Canadian nursing workforce. There are some notable evidence-based guides that have been developed to foster the hiring and integration of IENs.[97] A web-based guide – *Internationally Educated Nurses: An Employer's Guide* – was developed to help health care employers in hiring and integrating IENs in Ontario, for example. The evaluation of the usability of this leading strategy was positive, increasing employers' awareness of the key benefits of hiring and integrating IENs within the Canadian workforce.[98]

Also, research identified that there is a gap between the availability and desire for supportive programs to facilitate the integration of IENs, highlighting how the Ontarian Nursing Career OrIENtation (NCO) Initiative is a promising strategy that could be scaled to other provinces.[99] The NCO was launched in 2014 to help IENs find a job after their registration with the College of Nurses of Ontario (CNO), provide them bridging positions to facilitate their transition and integration into practice, and promote their retention within the health care settings.[100] In addition, collaborative partnerships could be developed between health care organizations and the Centre for Internationally Educated Nurses (CARE), which has a range of mentorship programs to facilitate IENs' integration into the Canadian nursing workforce.[101]

In brief, to support IENs, it is important to reduce costs, enhance timeliness, improve access to credential recognition, streamline the registration process, and provide financial support and employment opportunities to IENs. This can be accomplished by drawing on the dozens of existing successful programs and models to effectively assess, orient, bridge or upgrade, where necessary, and integrate IENs into our Canadian workplaces.

STEP 3: Recruit & Mentor

1. Expand Domestic Training Programs

As mentioned above, the nursing shortage is a global crisis and focusing extensively on nurse recruitment overseas raises ethical concerns regarding the equitable distribution of the nursing workforce between high- and low-income countries.[102] In this regard, the federal, provincial and territorial governments should strategically focus on local solutions:

1.1. Increase the number of seats in local nursing training programs

This will require the often overlooked parallel need to increase the number of nursing faculty to ensure there is sufficient capacity to train the increased number of students.[103]

1.2. Increase clinical faculty capacity to enable the expansion of nurse training

Any increase in nursing training spots will require consideration of the capacity of clinical faculty. Here is an untapped opportunity to retain late-career nurses, IENs with education

experience and recent leavers/early retirees in training roles, including preceptorships.[104] For example, specific licences could be developed for IENs with graduate training to work in academia to address the shortfall in doctoral graduates and the lack of diversity among the nursing faculty.[105] Another promising strategy for employers is to develop partnerships with nursing training institutions through funded secondments. This can entail a loan of an employee from a service organization to a training institution for a specific role/time,[106] where any difference in salary can be bridged. Research has shown that secondments have successful outcomes for both host and home organizations, including financial benefits for the employers, enabling nursing institutions to benefit from nursing faculty who have strong clinical expertise, bridging the gap between theory and clinical practice, as well as strengthening the links between health and academic organizations.[107]

1.3. Offer stackable micro-credentials programs

Stackable micro-credentialing became a growing educational trend that is designed to provide students with courses that can be stacked into one's current degree or diploma. Micro-credentials programs have gradually received increased attention from several educational institutions based in British Columbia, Alberta, Ontario, and the Maritime provinces[108]. Nursing schools could invest in implementing these kinds of programs to support nurses in their training.

2. Target Recruitment Strategies to Diversify the Nursing Workforce

Cultivating diversity in the nursing workforce is important to fostering patients' satisfaction and quality outcomes.[109] Racism, invisibility, and underrepresentation in nursing education are some barriers that contribute to the lack of diversity in the nursing workforce.[110] To alleviate this issue and reduce health disparities, it is crucial to target recruitment of Indigenous, Black and other people of colour, as well as men and gender-diverse people to enter the nursing profession.

2.1. Forming partnership with Indigenous and Black nursing organizations

Work in partnership to support diverse trainees throughout their training to ensure their retention, fostering a more inclusive nursing workforce across the country that is more representative of the population of Canada. Forming partnership with some partners (e.g., ethnic community associations, employers, and foundations) may contribute to developing innovative initiatives that foster diversity in the nursing workforce.[111] For example, employers may work in partnership with the Canadian Black Nurses Alliance (CBNA), whose mission is to support and empower Black nurses across Canada, and the longstanding Canadian Indigenous Nurses Association (CINA).

2.2. Holistic admissions review (HAR)

The HAR is a comprehensive, flexible and individualized admission process designed to evaluate applicants based on their capabilities, experiences, attributes and their academic metrics to create a more inclusive academic environment.[112] Considerable evidence reports that holistic admissions review (HAR) is one of the promising strategies that nursing schools and faculties can adopt to contribute to the diversification of the nursing workforce.[113]

2.3. Expand French-delivered nursing programs

Since many health care organizations are struggling to recruit francophone nurses, it would be advantageous to increase the accessibility of nursing education programs delivered in French to support francophone populations, particularly in rural and remote areas.[114] In addition, regarding the challenges faced by francophone nursing graduates, it is important to ensure that they have an equitable access to preparatory resources in French to facilitate their success on their National Council Licensure Examination for Registered Nurses (NCLEX-RN).[115]

3. Support Trainees to Work in Underserved Communities and Sectors

A national survey of rural regulated nurses from all Canadian provinces and territories[116] concluded that the proportion of nurses who work in rural and remote communities continues to decline compared to the proportion of the population in these areas. In addition to the limited number of nurses across the country, there are geographical variations and disparities in underserved communities. The federal, provincial and territorial governments should develop policies and programs to support trainees to work in underserved communities and sectors through:

3.1. Target tuition support program for nurses (TSPN)

Ontario's TSPN program offers tuition reimbursement for new nurses who graduate from rural and remote communities and choose to sign a return-of-service agreement to work in underserved communities.[117] During their studies, RN and LPN students in Newfoundland and Labrador can receive $5,000 per year over two years if they commit to a return of service agreement and work in a rural or remote area.

3.2. Scale the student loan forgiveness program

Offer more opportunities through the student loan forgiveness program.[118] For example, the federal government could invest more in offering this program to support nurses and doctors who agree to work in rural or remote underserved communities.[119] This program should also be scaled to other hard-to-fill health care sectors to increase the nursing workforce capacity and fill the existing gaps in these settings.

3.3. Scale the employed student nurse (ESN) program

This initiative has been successfully implemented in British Columbia and Nunavut, which can be particularly targeted to the long-term care sector. It offers a paid practicum program designed to tackle nursing shortages by providing nursing students an opportunity to work in a clinical setting for up to 300 hours to consolidate their knowledge and clinical skills and allow them to participate in the teamwork. Several testimonials documented that ESN supports nurses in gaining experience and navigating their career path.[120] Several stakeholders advocate that ESN is a successful recruitment strategy, highlighting some key considerations (e.g., equitable access to ESN programs, students' workloads, type of activities to accomplish, and number of clinical hours required to graduate). One of them stated:

> ***One of the things that has worked really well, in British Columbia, where we've had partnerships between the academic organizations, our Ministry of Health, Ministry of advanced education, and also the health care employers, is what we call the employed student nurse program, … where you basically start transitioning students into practice before they graduate, and the earlier the better.***
>
> **— Nursing stakeholder participant, dialogue policy, May 25th, 2022**

4. Implement Other Promising Recruitment Initiatives

Supporting nurses through their educational pathway (i.e., from high school to personal support workers [PSW] to licensed practical nurses [LPNs] to registered nurses [RNs] to nurse practitioners [NPs]) is of utmost importance to sustain the current and future nursing workforce. The following targeted solutions may align or intersect with those proposed to support nurses through their career pathway.

4.1. Implement tuition-free nursing programs

Offer free education for the next several years with permanent jobs through the creation of partnerships between nursing schools and hospitals. For example, in the United States, Chamberlain University has partnered with Louisiana Children's Medical Center (LCMC) Health to launch a new initiative to tackle nursing shortages by fully covering tuition costs for students for up to three years in combination with an employment incentive within LCMC Health.[121]

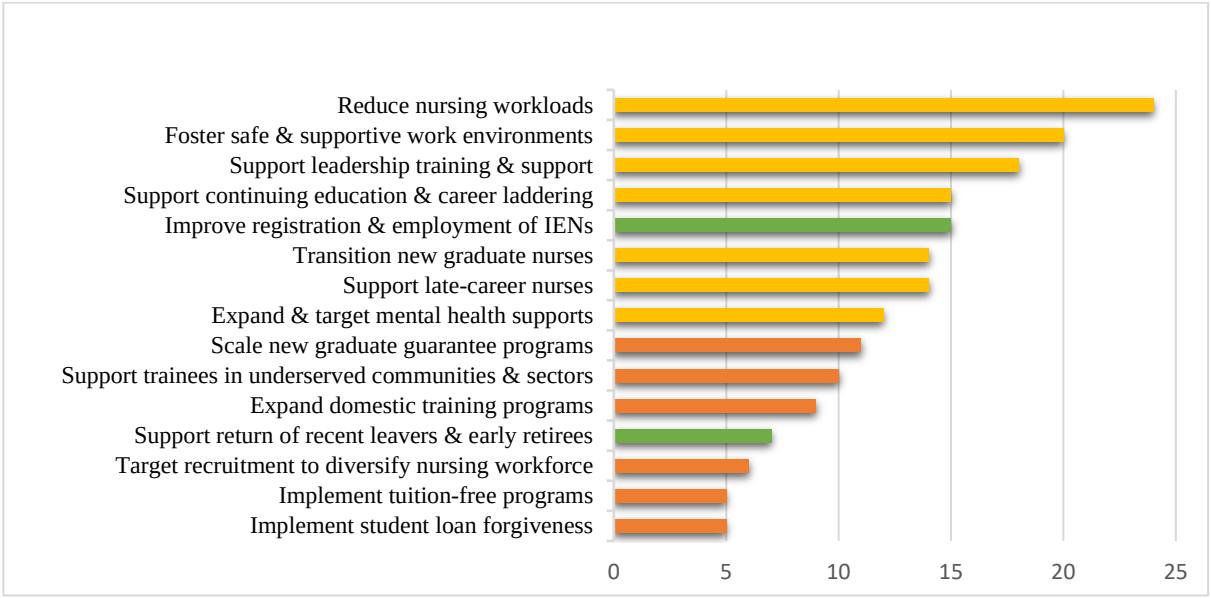
4.2. Scale the Ontario nursing graduate guarantee (NGG) program

Build on this initiative designed to assist new nursing graduates to find full-time jobs, give them the opportunity to work in different facilities (e.g., home care, mental health, etc.). In addition, this program provides a total of 20 weeks of funding: twelve weeks for a transition to practice where the nursing graduate receives dedicated mentorship, and eight weeks of funding to reinvest in supporting existing frontline nurses and their professional development.[122] The evaluation of this program indicated that this strategy has successfully increased the full-time employment of new graduate nurses within health care organizations.[123]

> ***Sustained success in improving nurse retention is likely to be related to planned, and perhaps sequenced, multi-policy interventions - so-called "bundles" of linked policies, rather than single interventions.***[124]
>
> **— Buchan et al., 2018, p. 18**

The suggested solutions are not presented here as a smorgasbord of options from which to pick and choose, but should be considered as an integrated set for coordinated action. Recognizing that not all can be implemented simultaneously, *Figure 5* presents the ranking of these initiatives in the May 25th, 2022 policy dialogue we held with nearly 40 nursing stakeholder representatives.

Figure 5. Rank order of promising retention, return and recruitment strategies by nursing workforce partners



Note – ***Retention*** *initiatives:* ***Return*** *initiatives:* ***Recruitment*** *initiatives:*

Each of these recommended evidence-informed actions aligns with other recommended actions to establish a pan-Canadian nursing workforce strategy.[125] Indeed, if Canada were to focus first on making investments in retention strategies and developing innovative measures to improve work environments (a fundamental component of retention) and then explicitly encourage the return of nurses who left the profession, left to work in private agencies or left their countries to come to work in Canada, this would significantly increase the workforce. Combined with immediate additional investments in recruitment this would help to address our current nursing shortage crisis.

These evidence-based solutions would be most successful if implemented through a coordinated and multi-layered approach in partnership between the federal, provincial, and territorial governments along with key nursing stakeholder organizations. Conversely, ad hoc and uncoordinated actions across jurisdictions will limit the ability to solve this pan-Canadian crisis. A promising example that may inspire other Canadian provinces is the think-tank (Box 3), that was recently undertaken in Newfoundland and Labrador. It corresponds to a collaborative initiative between the Government of Newfoundland and Labrador and the Registered Nurses' Union Newfoundland and Labrador (RNUNL), which is designed to address some challenges that nurses are currently facing.

Box 3: Think-tank: A collaborative initiative in Newfoundland and Labrador

A two-day virtual think-tank event took place in April 2022 to explore nurses' concerns and challenges. Additionally, participants worked to suggest solutions to immediately improve their work environments and develop strategies aimed at retaining and recruiting nurses within the province. Among these measurements, three requests for proposals (RFPs) were issued for:

1) *A registered nurse workforce research initiative to understand the shift in the nursing workforce within Newfoundland and Labrador;*
2) *The creation of a health workforce plan to ensure that Newfoundlanders and Labradorians receive the appropriate care at the right place and time; and*
3) *A nursing core staffing review to conduct an analysis of the current staffing methods and suggest promising avenues for improvement.*[126]

Another promising example for scaling is the new *Office of Healthcare Professionals Recruitment* in Nova Scotia (Box 4), which urgently responded to meet the health needs of Nova Scotians by ensuring sufficient health workers, including nurses.[127]

Box 4: A new Office of Healthcare Professionals Recruitment in Nova Scotia

In Nova Scotia, a new office – the Office of Healthcare Professionals Recruitment – was recently established to attract and retain health care workers, as well as to overcome obstacles to recruitment and retention processes. This office is currently working with community groups, partners (within and outside of the province) along with key stakeholders, suggesting some creative and innovative initiatives to retain and recruit health workers. Among several initiatives, two strategies are relevant to nursing:

1) *Offering incentives to recruit and retain highly qualified health workers to respond to population health needs within the province; and*
2) *Developing a mentorship program along with an online tool to support novice nurses in finding jobs.*

To successfully implement the solutions presented above, we have augmented our review by conducting an online survey on provincial/territorial nursing workforce initiatives with chief negotiators working within the CFNU's member organizations. The survey's findings highlighted the importance of taking into consideration several facilitators and barriers before implementing retention, return and recruitment solutions, as noted in *Table 2*.

Table 2. Facilitators and barriers to retention, return and recruitment initiatives according to provincial nurses' union representatives

Facilitators	Barriers
Retention Initiatives	
▪ Access to and collaboration between key partners	▪ Lack of collaboration between the government and unions
▪ Political will and financial investment by governments	▪ Lack of willingness by governments
▪ Embedded initiatives in collective agreements	▪ Lack of equal labour-management representation
▪ Employers' willingness	▪ Employers slow to implement the initiatives without union pressure
Return-to-practice/Integration Initiatives	
▪ Political willingness and support	▪ Lack of clarity and resources
▪ Collaboration between all key partners	▪ The regulatory body requirements
▪ Union involvement and good relationships	▪ Difficulty accessing internship and professional retraining for IENs
▪ Embedded initiatives in collective agreements	
Recruitment Initiatives	
▪ Government support	▪ Heavy workloads and expectations
▪ The emergence of a crisis (e.g., COVID-19)	▪ The absence of safe nurse-patient ratios
▪ An authentic political willingness	▪ The numerous hours of mandated overtime
▪ Collaboration between key partners	▪ Little focus on improving working conditions
	▪ Low morale and unhealthy workplaces
	▪ Minimal regard given to junior nurse experience level
	▪ Lack of experienced nurses to mentor IENs and new nursing graduates
	▪ The absence of provincial and local workforce planning
	▪ Lack of collaboration between governments and key partners

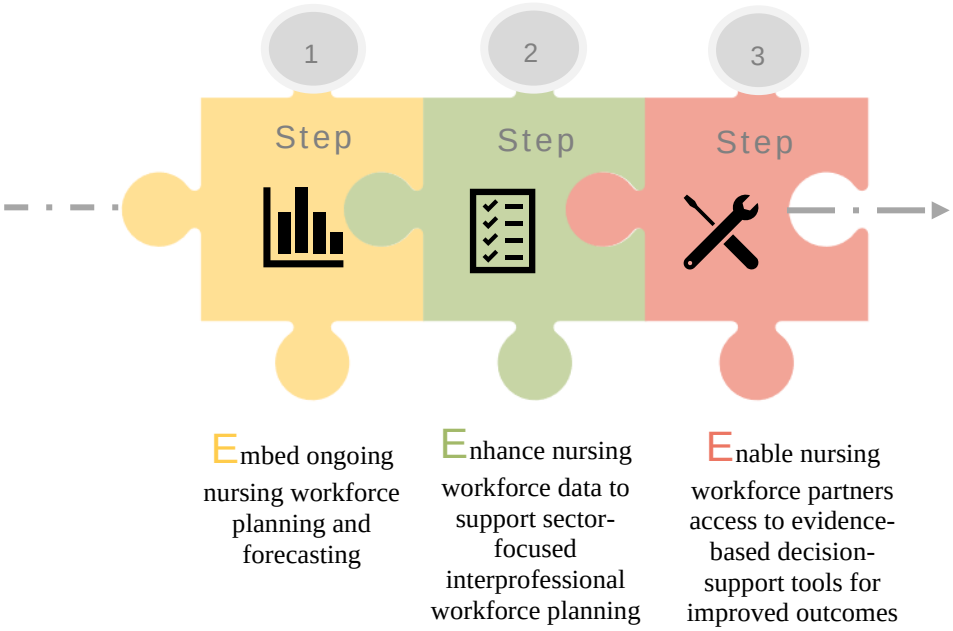
Workforce Planning Will Help Weather Future Crises

Given that one of the primary roots of the current nursing workforce crisis is inadequate workforce planning, the next set of strategies is to apply leading practices to ***embed nursing workforce planning and forecasting*** as an ongoing process utilizing existing data. Next is to work towards ***enhancing nursing workforce data*** to support more precise interprofessional, sector-focused planning. The goal is to ***enable all nursing workforce stakeholders' access to evidence-based decision-support tools*** to inform future decisions, collectively improving outcomes *(Figure 6)*. Each of these recommendations is based on international leading practices (Box 5).

Box 5: Leading international practices in health workforce planning:

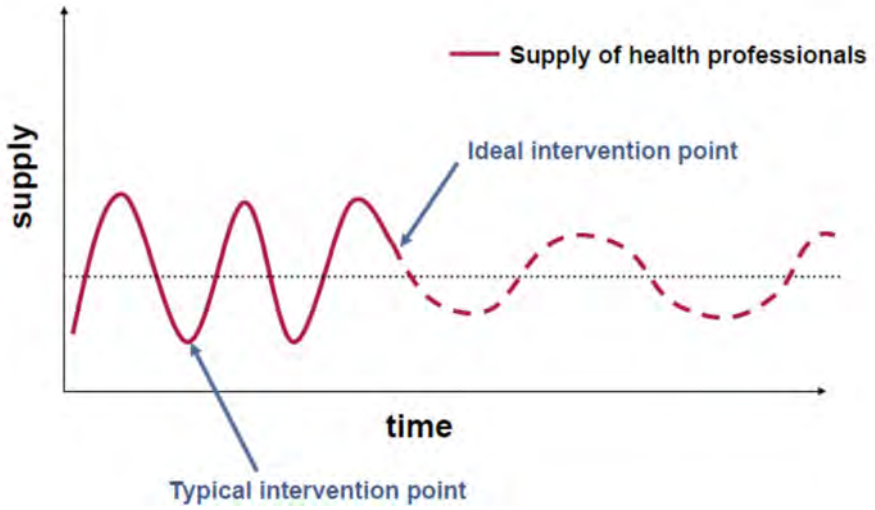
- *are **evidence-informed**, utilizing high-quality data to inform assessments of requirements, capacity and alignment, recognizing the broader social, political and economic contexts;*
- *are **integrated** and **multi-professional**, rather than revolving around single professions in isolation, reflecting the reality that high-quality health care is delivered in teams;*
- *adopt a **life-course approach**, spanning from education and entry into the workforce, through to active practice, and then to retirement and exit from the workforce;*
- *include detailed standardized data on the **activities** of a variety of health care professionals - including the services provided, the health care setting and location;*
- *are **interactive** exercises that leverage both quantitative workforce data and qualitative workforce intelligence from key stakeholders to develop locally relevant plans; and*
- *are **iterative,** embedding cycles of workforce planning and evidence-generation into the decision-making processes of a learning health system, enabling regular revisions of projections and course correction.*[128]

Figure 6. A triple-E approach to nursing workforce planning



These additional steps will help future-proof the nursing profession with proactive planning. They will help develop sustainability strategies, supporting nurses and the health workforce more broadly. As depicted in *Figure 7*, these activities will help to smooth out fluctuations in the nursing workforce, enabling decision to be made before more extreme crises are upon us.

Figure 7. Role of strategic health workforce planning in 'smoothing' the fluctuations from surplus to shortage[129]



STEP 1: Embed Ongoing Nursing Workforce Planning

As noted earlier, there has been no comprehensive, ongoing pan-Canadian nursing workforce planning undertaken since the 2009 report commissioned by the Canadian Nurses Association of the team led by Dr. Gail Tomblin Murphy from the WHO Collaborating Centre at Dalhousie University. Detailed in a subsequent paper by this team,[130] the approach taken to the nursing workforce projections utilized existing data on the population health needs and nursing workforce to a stock and flow model *(Figure 8)* from the sources listed in *Table 3*.

Briefly, the model developed by this team outlines the pathway from training of new nursing students, which added to in-migration by IENs are new providers added to the existing stock. Attrition during training programs, outmigration and exits reduces the stock of nurses. Then these head counts are adjusted for activity and participation rates (e.g., full time equivalency), which can be further adjusted by rates of productivity. This estimate of nurses required is matched to population health needs, demographic and utilization to identify gaps, which can be course corrected through various scenarios that modify the numbers along these pathways.

These datasets used to create this model remain available and thus subsequent pan-Canadian or provincial/territorial nursing workforce planning can be undertaken on an ongoing basis. Based on our environmental scan and stakeholders' interviews, there has been no such planning undertaken or made publicly available for the range of nursing workforce stakeholders to make informed decisions along the training, practice and retention pathway. Thus, most nursing workforce decisions were made in the absence of the guidance this could have provided.

Figure 8: Stock and flow model for nursing workforce planning[131]

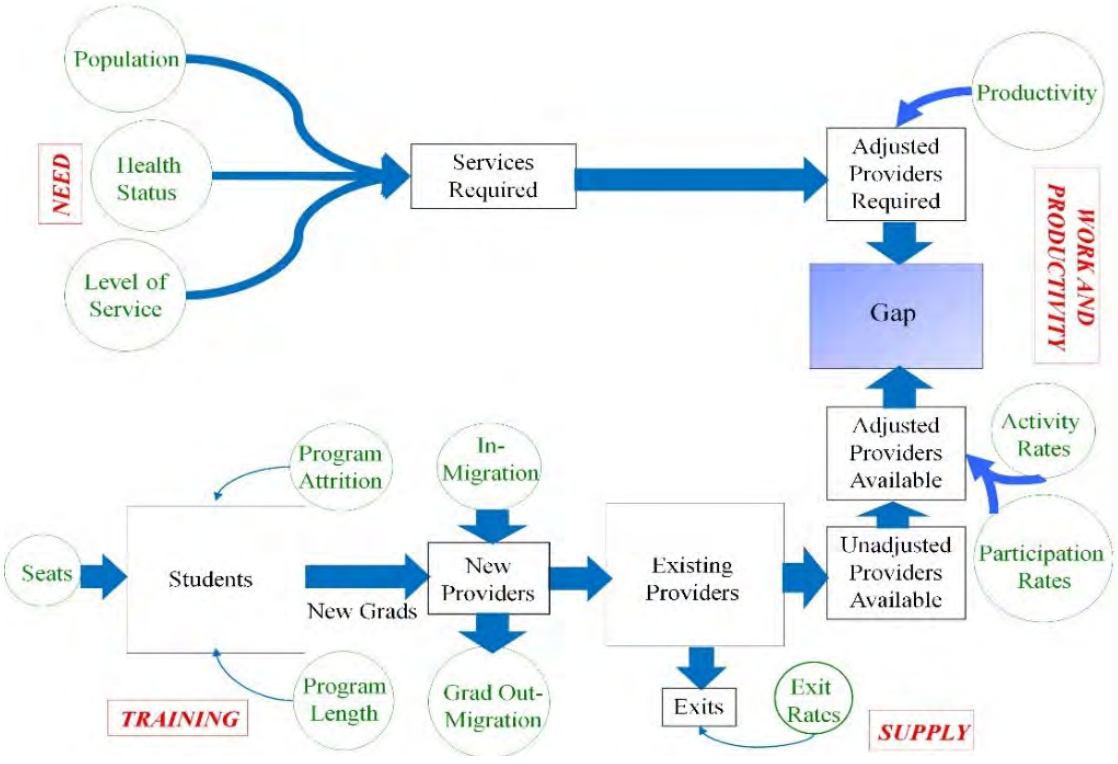


Table 3: Data sources to populate a population needs-based nursing workforce planning model

Population Needs		**Workforce Supply**	
Population		**Training**	
Demographics	Census	# Students, program length, attrition, completion & outmigration	CNA, CASN, National Student & Faculty Survey
Need & Level of Service		**Supply**	
Acute care (injury prevalence, chronic condition prevalence, self-assessed unmet need)	National Population Health Survey (NPHS), Canadian Community Health Survey (CCHS)	Existing stock, in-migration, out-migration	CIHI Registered Nurses Database (RNDB), licensing exam and p/t regulatory authorities
Home & Community care (self-assessed health status, unmet need, patient visits)	NPHS, CCHS, CIHI Discharge Abstracts Database (DAD)	**Productivity**	
Long-term care (assistance with activities of daily living, residence in LTC, alternative level of care beds in hospitals)	NPHS, CCHS, Residential Care Facilities Survey (RCFS), Hospital Association data	Activity, participation, and productivity	RNDB, DAD, CCHS

Note: The information is synthesized from Tomblin Murphy, G., Birch, S., MacKenzie, A., Alder, R., Lethbridge, L., & Little, L. (2012). Eliminating the shortage of registered nurses in Canada: An exercise in applied needs-based planning. Health Policy, 105(2–3), 192–202. https://doi.org/10.1016/j.healthpol.2011.11.009

Our review has identified a number of key considerations in addressing some of the systemic issues to nursing and overall health workforce planning. *Table 4* illustrates numerous facilitators and barriers to nursing workforce planning that have been emerged from both the literature and a policy dialogue undertaken in April 2022 with over 20 key nursing stakeholders consulted for this project.

***Table 4*. Facilitators and barriers to nursing workforce planning**

Facilitators	Barriers
▪ Awareness of the issues and the recent projects underway	▪ Variation in legislation across jurisdictions
▪ National agreement between jurisdictions	▪ Competitions between jurisdictions
▪ Importance of having consistent definitions and terminology minimum data standards to inform nursing workforce planning	▪ A lack of standard definitions and role descriptions of nursing within and across countries
▪ Coordinated efforts between jurisdictions	▪ A lack of participation in sharing data
▪ Collaboration between nurse leaders and nurse regulators	▪ Privacy and confidentiality of data collection
▪ Collaborative effort between stakeholders and experts to achieve a timely and comprehensive data collection	▪ A lack of fundings and resources
▪ Recognition of the importance of having consistent, accurate and detailed data collection	▪ Variations of collecting data sources
▪ Comprehensive and high-quality data	▪ Insufficient data for planning
▪ Nursing workforce data for planning should be longitudinal	▪ A lack of data collection by regulatory bodies and national organizations to capture nursing students' attrition and their graduate outcomes
▪ Nursing workforce data should be collected periodically and in a timely manner	▪ A lack of relevant and timely accessible data on the nursing workforce

STEP 2: Enhance Nursing Workforce Data to Support Sector-Focused Interprofessional Workforce Planning

In addition to the principles of an iterative evidence-informed workforce planning approach that takes a career course approach, other leading practices in health workforce planning include that they are *integrated* and *multi-professional*, rather than revolving around single professions in isolation; this reflects the reality that high-quality health care is delivered in teams.[132] A key facilitator for integrated planning is datasets which contain comparable data elements – particularly on the health workforce side. A tool to achieve standardized datasets is a minimum data standard (MDS).

> ***Without standardized minimum data sets, no further work would be possible.***[133]
>
> **— Moulton et al., 2012, p. 169**

The Canadian Institute for Health Information (CIHI) developed a health workforce MDS in 2012[134] which was to serve as a guide for health professional regulatory authorities to follow when voluntarily submitting data to CIHI for synthesis. Unfortunately, there was little uptake. In 2022, they refreshed and simplified this MDS towards a more standardized approach for workforce planning purposes, including equity data elements previously absent. CIHI has also partnered with investigators at CHWN to develop a more integrated, enhanced and inclusive MDS covering a broader range of data elements and a wider range of health professions (including the medical profession), with research funds from the Canadian Institutes of Health Research. In making the case for this enhanced MDS, CHWN investigators raised concerns regarding the inefficiencies raised by health workforce data that are disparate across jurisdiction and profession, and how this limits more effective integrated health workforce planning.[135]

The national and international literature highlights the need to standardize nursing workforce data and underscores the utmost value of an MDS to improve data analysis and collection and contribute to more accurate and effective nursing workforce planning.[136] The standardization of nursing workforce data can allow stakeholders and policy decision-makers to track trends over time that would inform future nursing workforce planning.[137] To achieve this goal, collaborative efforts and engagement between all stakeholders (e.g., governments, unions, regulatory authorities, employers, educators, associations, etc.) are fundamental.

STEP 3: Enable Nursing Workforce Stakeholders' Access to Evidence-based Decision-Support Tools for Improved Outcomes

> ***Through the use of appropriate planning tools, management practices and policy levers, health systems can align the available health workforce to the needs of the populations they serve while increasing efficiency, efficacy and equity.***[138]
>
> **— Bourgeault et al., 2021, p. 26**

Another leading international practice in iterative evidence-informed health workforce planning is that they should be *interactive* exercises that leverage both quantitative population health and health workforce data and qualitative workforce intelligence from key stakeholders to produce locally relevant plans with easy-to-understand outputs to assist in coordinated action.[139] Interactive tools or dashboards enable stakeholders and decision-makers to pose different scenarios to anticipate the outcomes of different decisions which taken together produces a more robust plan of action to meet a range of potential futures. Three international examples are noteworthy.

1. The WHO Workload Indicators of Staffing Need (WISN)

WISN is another promising health workforce planning tool that has been successfully implemented in many countries (there are users from over 140 countries and around 1,500 members that share their experiences in using WISN).[140] The WISN is a context-adaptable tool that can be applied in all health care settings (e.g., primary to tertiary health care facilities and emergency departments), and all health care professions, and can be complemented with other existing planning tools. It can improve data availability, and thus, equip planners and policy decision-makers with extensive information regarding staffing norms, health workforce distribution, upgrading health care facilities, staffing needs, skill-mix and so on.[141] Box 6 presents the eight technical steps of the WISN. Seven of these were rated in an international Delphi study as either "very easy" or "easy" to be implemented.[142]

Box 6: Eight technical steps of the WISN

1. Determining priority cadres and health facility types
2. Estimating available working time (AWT)
3. Defining workload components
4. Setting activity standards
5. Establishing standard workloads
6. Calculating allowance factors (CAF)
7. Determining staff requirements
8. Analyzing and interpreting WISN results

2. The Australian HeaDS UPP Tool

The Australian Government Department of Health and Aged Care developed the online Health Demand and Supply Utilisation Patterns Planning (HeaDS UPP) Tool[143] which is an integrated source of health workforce and services data that informs workforce planning and analysis among government and non-governmental organizations (e.g., rural workforce agencies, primary care networks, medical colleges and regional training organizations). It brings together a range of datasets to geographically represent community needs, patient utilization and workforce availability. It makes it easier to measure health service needs and the workforce required to meet those needs and identify gaps. This provided a ready infrastructure for a more effective pandemic response.[144]

3. The US Workforce Projections Dashboard

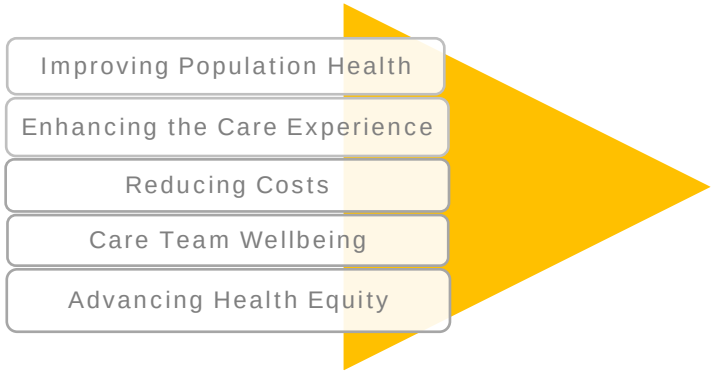
The National Center for Health Workforce Analysis of the United States Department of Health Resources and Services Administration recently released an online, interactive Workforce Projections Dashboard[145] that projects the supply and demand of health workers through to 2030. The dashboard is organized by sector – allied health, behavioural health, long-term care, oral health, primary care and women's health – and within each of these sectors a number of health occupations can be included for an overall assessment of workforce capacity to meet population health needs. Also included in the dashboard are built-in scenarios that address potential changes in population health and workforce supply that can inform decision-making in this regard. As stated on its website, "[b]y estimating supply, demand, and distribution of health care workers, we inform public policy to help prevent shortages and surpluses."

Conclusions

There is a clear case for urgent action by all stakeholder organizations and levels of governments toward better planning and support for our nurses, creating more favorable work conditions to ensure their retention and return to the public health care system. Ad hoc approaches to nursing workforce support and planning have proven to be ineffective at best and have been linked to adverse consequences for the population's health and safety, as well as the accessibility of health care services. The result is the maldistribution of the health workforce, leading to significant economic impacts on the health care system.

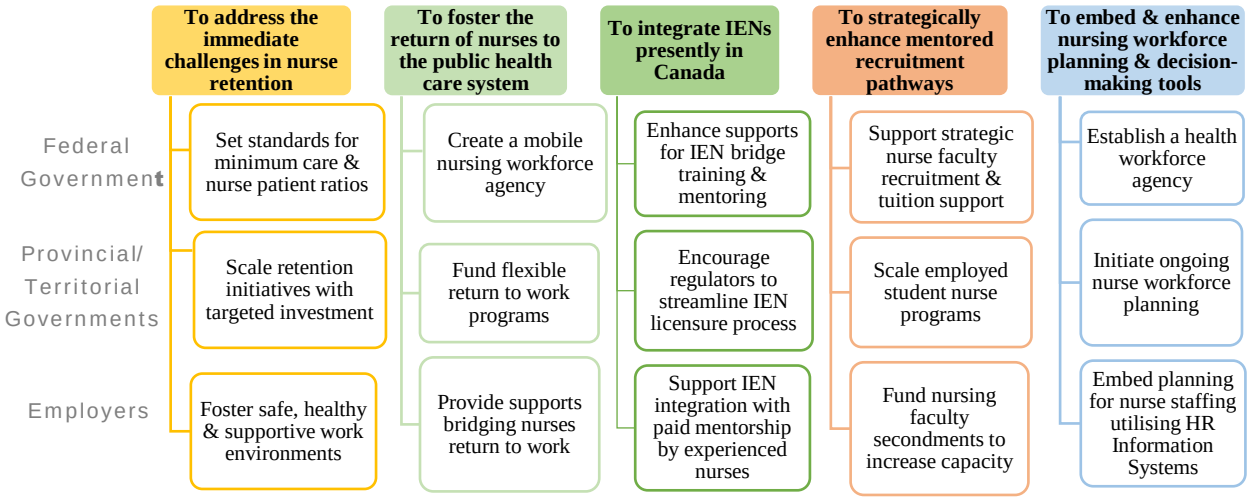
We believe that the proposed solutions on retention, return, recruitment and nursing workforce planning integrated into overall workforce planning will have a significant impact not only on the nursing workforce and health workforce more broadly (given that nurses work with so many other health providers), but also on patients, overall population health, the sustainability of the health care system as a whole, and equity concerns. In this way, these integrated proposed solutions will advance the quintuple aim of health care improvement *(Figure 9)*.

Figure 9: The quintuple aim for health care improvement



Note: This figure was adapted from Ma. A. (2022). Building a healthcare system that's fit for purpose. PWC

Figure 10: Strategic priority actions to support the Canadian nursing workforce



Strategic Priority Actions

To address the immediate challenges in nurse retention

- The federal government should set standards for minimum care, including nurse-patient ratios, and support the spread and scale of promising initiatives from other jurisdictions.
- Provincial/territorial governments should spread and scale evidence-informed retention initiatives with targeted investments in partnership with employers and health authorities.
- Employers should foster safe, healthy, and supportive work environments, adding nursing support roles to reduce non-nursing duties and implement processes to reduce workloads.

To foster the return of nurses to the public health care system

- The federal government should create a public workforce agency to employ mobile nurses and other health workers licensed to temporarily address high-need areas.
- Provincial/territorial governments should fund flexible return-to-practice programs.
- Employers should provide mentorship and other supports bridging nurses' return to work.

To integrate internationally educated nurses (IENs) presently in Canada

- The federal government should enhance supports for IEN bridge training and mentoring programs enabling their more-timely integration in partnership with provinces/territories.
- Provincial/territorial governments should fund and encourage regulators to streamline the licensure recognition process supporting IENs through compensated bridge training.
- Employers should adopt tools to streamline IEN integration, including paid mentorship and support from experienced nurses in practice.

To strategically enhance appropriately mentored recruitment pathways

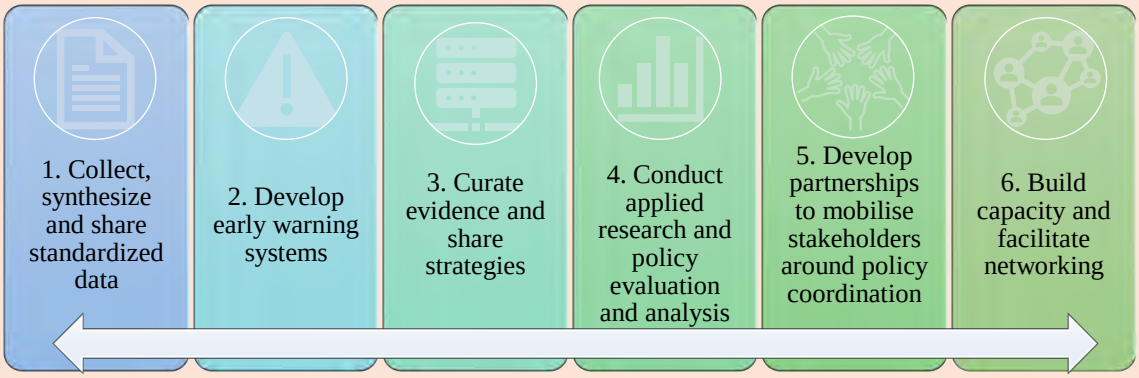
- The federal government should support strategic nurse faculty recruitment to increase enrolments and target tuition support for work in underserved communities and sectors.
- Provincial/territorial governments should scale employed student nurse programs to support transition to employment and micro-credentials to support nurse career laddering.
- Employers should support the capacity of clinical faculty to increase enrolments through funded secondments in partnership with universities and colleges.

To embed and enhance nursing workforce planning with digitally enabled tools

- The federal government should establish a health workforce agency that supports the enhancement of nursing and other workforce data and digitally enabled tools for employers and regional authorities to integrate into their ongoing planning.
- Provincial/territorial governments should initiate or reinstate ongoing nursing workforce planning in collaboration with nursing workforce partners.
- Employers should utilize human resource information systems to embed ongoing planning for nurse staffing.

Many of these strategic priority actions could be coordinated, monitored over time and evaluated for efficacy through the establishment of a dedicated *Canadian Health Workforce Agency*. Indeed, successful agencies have been playing an essential role in planning in comparable sectors in Canada and in other OECD countries.[146] The federal government could play an important coordinating role vis-à-vis key provincial, territorial, regional, hospital and education stakeholders to establish this agency, to enhance health workforce data and planning, coordinating action across professions and jurisdictions, to develop publicly accessible tools to support planners and policy makers to make informed and improved decisions based on high-quality and comprehensive data (Box 7).

Box 7: Integrated function of a health workforce agency



Note: Inspired by: World Health Organization. (2012). Human Resources for Health Observatories: Contributing to evidence-based policy decision. https://www.who.int/publications/m/item/9789241504232

There are at least six integrated functions of an effective health workforce agency:

1A: Collect, process, analyse, synthesize and share standardized data on health workers across Canada through an online interactive analytic platform;

1B: Develop health workforce information systems that harmonize data collection methods and tools according to common guidelines and ensure linkages with other interjurisdictional health data systems;

2A: Develop early warning systems anchored to key indicators/provincial/territorial/ regional profiles that helps to identify, forecast and monitor health workforce problems/needs that proactively advise workforce planning processes to avert health workforce crises;

3A: Curate and share the latest evidence, strategies and innovative approaches to tackle health workforce challenges through decision-support tools for a range of stakeholders and decision-makers;

3B: Facilitate the sharing of successful experiences in resolving critical health workforce challenges through cooperative arm's-length discussion forums, technical meetings and policy dialogues between stakeholders, generating multi-level recommendations;

4A: Conduct applied research to generate evidence in support of more informed approaches to decision-making and policy development and evaluate health workforce development policies, strategies, plans and their implementation;

5A: Develop partnerships to mobilize stakeholders for pan-Canadian synergy and coordinate advocacy to build consensus around coordinated policy development and action regarding timely health workforce issues prioritizing strategic interventions;

6A: Build capacity in health workforce analysis, evaluation and monitoring health workforce trends through training programs, and facilitate the networking of health workforce expertise;

6B: Build and strengthen health workforce governance and regulatory capacity, harmonizing regulatory policies and practices across federal/provincial/territorial jurisdictions.

List of acronyms

AWT	Available working time	**LCNI**	Late-Career Nursing Initiative
CAF	Calculating allowance factors	**LPN**	Licensed practical nurse
CARE	Centre for Internationally Educated Nurses	**MDS**	Minimum Data Set
CASN	Canadian Association of Schools of Nursing	**NCLEX-RN**	National Council Licensure Examination for Registered Nurses
CBNA	Canadian Black Nurses Alliance	**NCO**	Nursing career orientation
CCHS	Canadian Community Health Survey	**NEI**	Nursing Education Initiative
CFHI	Canadian Foundation for Health Improvement	**NGG**	Nursing Graduate Guarantee
CHWN	Canadian Health Workforce Network	**NNAS**	National Nursing Assessment Service
CIHI	Canadian Institute for Health Information	**NP**	Nurse practitioner
CNA	Canadian Nurses Association	**NPHS**	National Population Health Survey
CFNU	Canadian Federation of Nurses Unions	**NPR**	Nurse-to-patient ratio
CHSRF	Canadian Health Services Research Foundation	**NRP**	Nurse Residency Programs
CLUE	Care left undone event	**NSWHN**	National Survey of the Work and Health of Nurses
CGFNS	Commission on Graduates of Foreign Nursing Schools	**OECD**	Organisation for Economic Co-operation and Development
CINA	Canadian Indigenous Nurses Association	**PAPR**	Powered air-purifying respirators
CNO	Chief Nursing Officer	**PCAP**	Patient Care Assessment Process
CNO	College of Nurses of Ontario	**PNP**	Provincial Nominee Program
DAD	Discharge Abstracts Database	**PPE**	Personal protective equipment
ESN	Employed student nurse	**PSP**	Peer-support programs
FIQ	Fédération Interprofessionnelle de la Santé du Québec	**PSW**	Personal support worker
FSWP	Federal Skilled Worker Program	**PTSD**	Post-traumatic stress disorder
FTE	Full-time equivalent	**RCFS**	Residential Care Facilities Survey
GDP	Gross Domestic Product	**RFP**	Requests for proposal
HAR	Holistic admissions review	**RN**	Registered nurse
HESA	House of Commons Standing Committee on Health	**RNUNL**	Registered Nurses' Union Newfoundland and Labrador
HEC	Healthcare Excellence Canada	**RPN**	Registered psychiatric nurse
HeaDS UPP	Health Demand and Supply Utilisation Patterns Planning	**RTA**	Research To Action
HHR	Health Human Resources	**RSC**	Royal Society of Canada
iCBT	Internet-based cognitive behavioral therapy	**TR to PR**	Temporary Resident to Permanent Resident
ICN	International Council of Nurses	**TSPN**	Tuition Support Program for Nurses
ICNM	International Centre on Nurse Migration	**WHO**	World Health Organization
IEN	Internationally educated nurse	**WISN**	Workload Indicators of Staffing Need
LCMC	Louisiana Children's Medical Center		

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Appendix

A Comprehensive yet Rapid Review Methodology

A multi-methodological approach was undertaken for this comprehensive yet rapid review of evidence-based solutions, several research strategies were utilized: (1) consulting the peer-reviewed and policy literature, (2) conducting an environmental scan (3) administering a survey to CFNU member chief negotiators, and (4) undertaking individual and group interviews online with key nursing stakeholders.

First, three databases (CINAHL, Medline, and PubMed) of published literature were searched with the assistance of a social sciences librarian from the University of Ottawa (and peer-reviewed by another librarian), using the following three concepts: (1) health workforce, (2) workforce data, and (3) workforce planning. The results from this search strategy were imported into Covidence, a platform used to support the process of screening, extracting, and synthesizing data. To better select the most relevant writings, the following inclusion criteria have been defined: (1) any data related to nursing workforce planning and data, retention, supply, demand, barriers, facilitators, strategies, and workforce initiatives, (2) no restriction regarding the date, the type, or the language of publication. An additional research specific for retention solutions has been conducted, using the following research equation: *(MH "Nursing Manpower+") AND ((MH "Personnel Loyalty") OR (MH "Personnel Recruitment") OR (MH "Personnel Retention") OR (MH "Personnel Staffing and Scheduling") OR (MH "Personnel Turnover") OR (MH "Job Satisfaction") OR (MH "Work Environment") OR (MH "Burnout, Professional+")) AND (TI (initiatives or programs or strategies* or interventions*))*.

Second, an environmental scan of governmental websites and grey literature was conducted to identify any nursing workforce initiatives that have been implemented across Canada, focusing especially on some issues regarding nursing staffing, workload along with retention, return-to-practice and recruitment. Nurse's unions websites and government departments of different Canadian provinces and territories, and key pan-Canadian organizations were also consulted to obtain updates on the nursing workforce. An informational-only survey of CFNU chief negotiators was undertaken to supplement the environmental scan to ensure coverage of promising initiatives, including a specific focus of relevant items in Collective Agreements.

Finally, after securing approval from the uOttawa Research Ethics Board, individual and group interviews to identify the most relevant evidence-based solutions and to better understand the barriers and facilitators to nursing workforce planning in Canada. Three stakeholder sessions were taped, transcribed and promising practices extracted according to the recruitment, return and recruit categories, and subcategories. Verbatim quotes have been excerpted to provide additional details. Two of the stakeholder interviews utilized a facilitated session using Xleap software to cluster and rank order solutions for targeted discussion (*see Figure 5)*.

The pandemic has greatly impacted the nursing profession in Canada, a workforce that had already been struggling with heavy workloads, chronic shortages and a high prevalence of burnout. Urgent and coordinated actions by all levels of governments are needed to better support nurses now and into the future.