

BEYOND THE BEDSIDE: The Nursing Shortage in British Columbia

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MTS 2023

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Map the System 2023

INTRODUCTION

Nurses are the backbone of the healthcare system. They “advocate for health promotion, educate patients and the public on the prevention of illness and injury, provide care and assist in cure, participate in rehabilitation, and provide support”, an all-encapsulating job description unique to nurses.¹ However, British Columbia (B.C.), whose healthcare system is dependent on nurses, encounters a shortage in its workforce. By 2031, the province will need 26,000 more nurses to meet the healthcare demands.² Shortages are cyclical and have been long occurring before the COVID-19 pandemic that revealed just how close to the breaking point the public health system had been functioning for decades.³ Healthcare is one of the most complex environments to work in due to the high stakes involved, a large number of stakeholders with varying interests, constantly changing regulations, and rapidly evolving technologies and treatments, all of which can impact patient care and safety.⁴ As Canada's nurse workforce is projected to face a shortage of 117,600 nurses by 2030,⁵ system stakeholders have attempted to raise awareness and implement solutions for years. However, a discontinuity of governments and senior leadership renders promising potential solutions ineffective as policies and objectives change over time.

PURPOSE & SCOPE

Although the nursing shortage and healthcare crisis exist globally, our research looks at the nursing shortage in B.C. among registered nurses (RNs), licensed practical nurses (LPNs), clinical nurse specialists (CNSs), registered nurse practitioners (RPNs) and nurse practitioners (NPs) working in hospitals. By narrowing our scope to nurses working in hospitals in B.C., our analysis seeks to present a concentrated and holistic view of the issue. We do so by first identifying the key system stakeholders, trends, and macro-environmental factors that directly contribute to the nursing shortage.

We continue to map the problem landscape by exploring how the COVID-19 pandemic has exacerbated the crisis and how related systems such as education and government determine the efficacy of solutions. We conclude by addressing gaps within the current system essential to reduce the shortage and the key insights and lessons we have learned through our research.



¹ D. Doyle, former CEO of providence healthcare, March 22, 2023

² B.C. will pay fees, fund schooling upgrades to get more nurses in health-care system. (2023, January 9). CTV News Vancouver Island. Retrieved April 13, 2023, from <https://vancouverisland.ctvnews.ca/b-c-will-pay-fees-fund-schooling-upgrades-to-get-more-nurses-in-health-care-system-1.6223540>

³ A. Allore, Medical Researcher, March, 2023

⁴ D. Doyle, former CEO of providence healthcare, March 22, 2023

⁵ Projecting shortages and surpluses of doctors and nurses in the OECD: what looms ahead. (n.d.). PubMed. Retrieved April 13, 2023, from <https://pubmed.ncbi.nlm.nih.gov/29357954/>

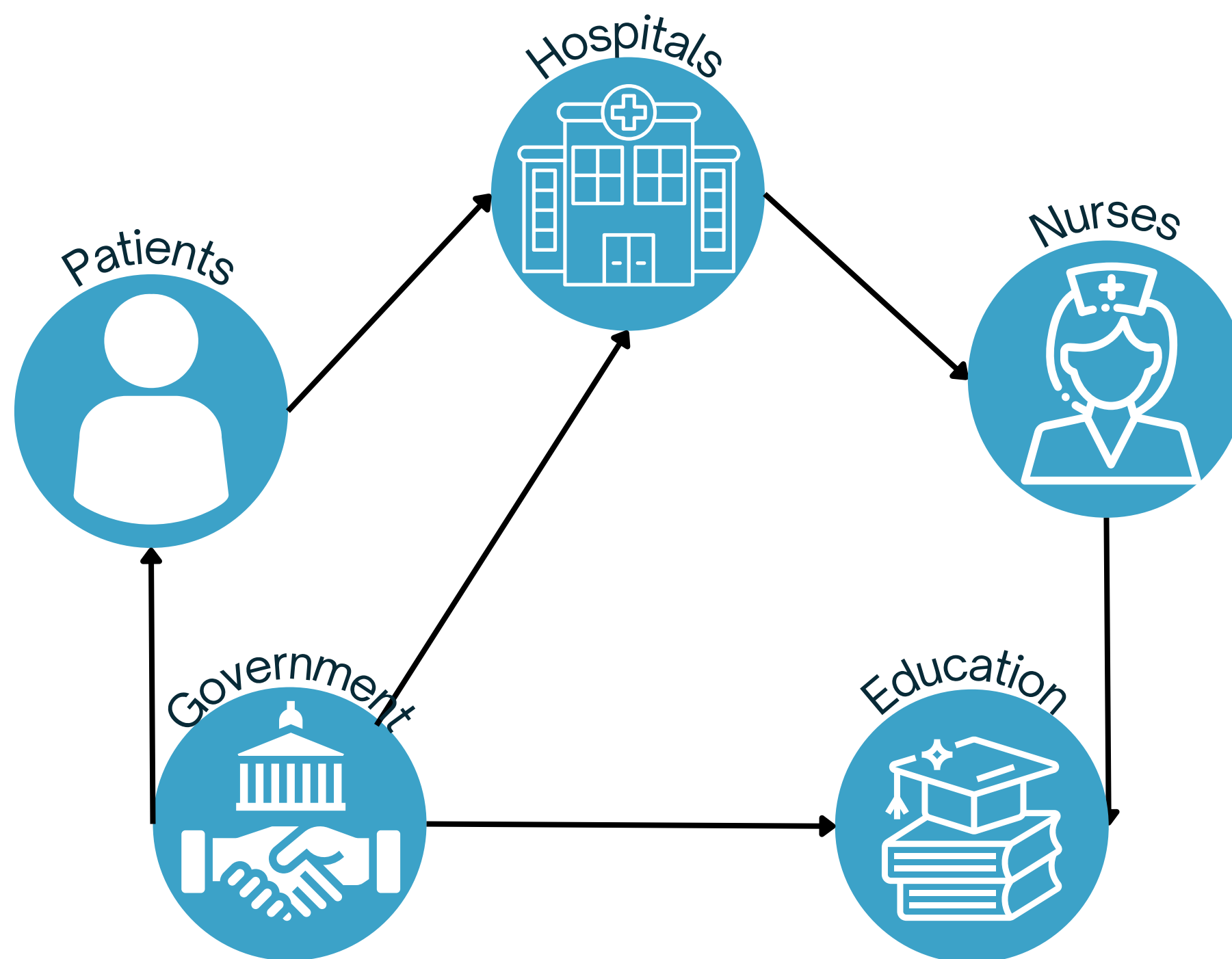


METHOD

Our team has applied a systems thinking approach and modelling methodology to identify the numerous interconnections, interrelationships, patterns, events and behaviours that have culminated in the nursing shortage. To do so, we used three methods. Firstly, scholarly sources, research reports, and media articles aided us in understanding the rules, stakeholder roles, the results produced by the current system, and key behavioural patterns that have emerged. We conducted interviews with nursing students, new graduates, seasoned nurses, as well as instructors and healthcare professionals throughout B.C. These interviews gave insight into the power dynamics between stakeholders, the root causes of the nursing shortage, and the system structures which have yielded the current results. Lastly, our personal experiences with our family and friends in the healthcare system have provided us with a deeper understanding of the populations affected by this topic.

POSITIONALITY & LIMITATIONS

Acknowledging that we are not nurses nor directly involved in the system except for our role as patients and tax-payers, our understanding of the nursing shortage is dependent on the primary and secondary sources we consulted in our research. We recognize that the perspective we present may not encapsulate every system actor's experience within such a complex system as healthcare. Moreover, as this project briefly compares B.C. to the other Canadian provinces and international cases, our work is also limited in the nuances of each jurisdiction external to our local system. However, we believe the perspective we presented is a valuable contribution to the discussion.



KEY STAKEHOLDERS

The federal government: Healthcare is under the jurisdiction of the territories and provinces with funding aided by the Federal government through the Canada Health Transfer under the Canada Health Act.⁶

Education institutions include nursing instructors, mentors, regulatory bodies who determine basic practices and safety procedures, and domestic and foreign students. They also play the crucial role of educating and training aspiring healthcare professionals for success in the workplace.

Hospitals in the public health sector are responsible for patients, their treatment and the diagnosis of disease.⁷ This encompasses hospital leadership and upper management responsible for staffing, strategic planning and workplace safety.⁸

The nursing workforce includes practicing RNs, LPNs, CNSs, RPNs, and NPs working in the public sector who bear the brunt of the staffing shortage. Patients in Canada are in need of medical assistance, treatment or medicine administered by healthcare professionals.

Patients indirectly fund 70% of the healthcare system through general tax revenues.⁹ Patients are the reason the healthcare system exists and nurses work directly with them.

⁶ *Canada Health Act*. (2023, March 10). Canada.ca. Retrieved April 13, 2023, from <https://www.canada.ca/en/health-canada/services/health-care-system/canada-health-care-system-medicare/canada-health-act.html>

⁷ *Criminal Code of Canada - section 672.1(1) - Definition of hospital*. (n.d.). CRIMINAL CODE OF CANADA. Retrieved April 13, 2023, from <https://www.criminal-code.ca/criminal-code-of-canada-section-672-1-1-definition-of-hospital/index.html>

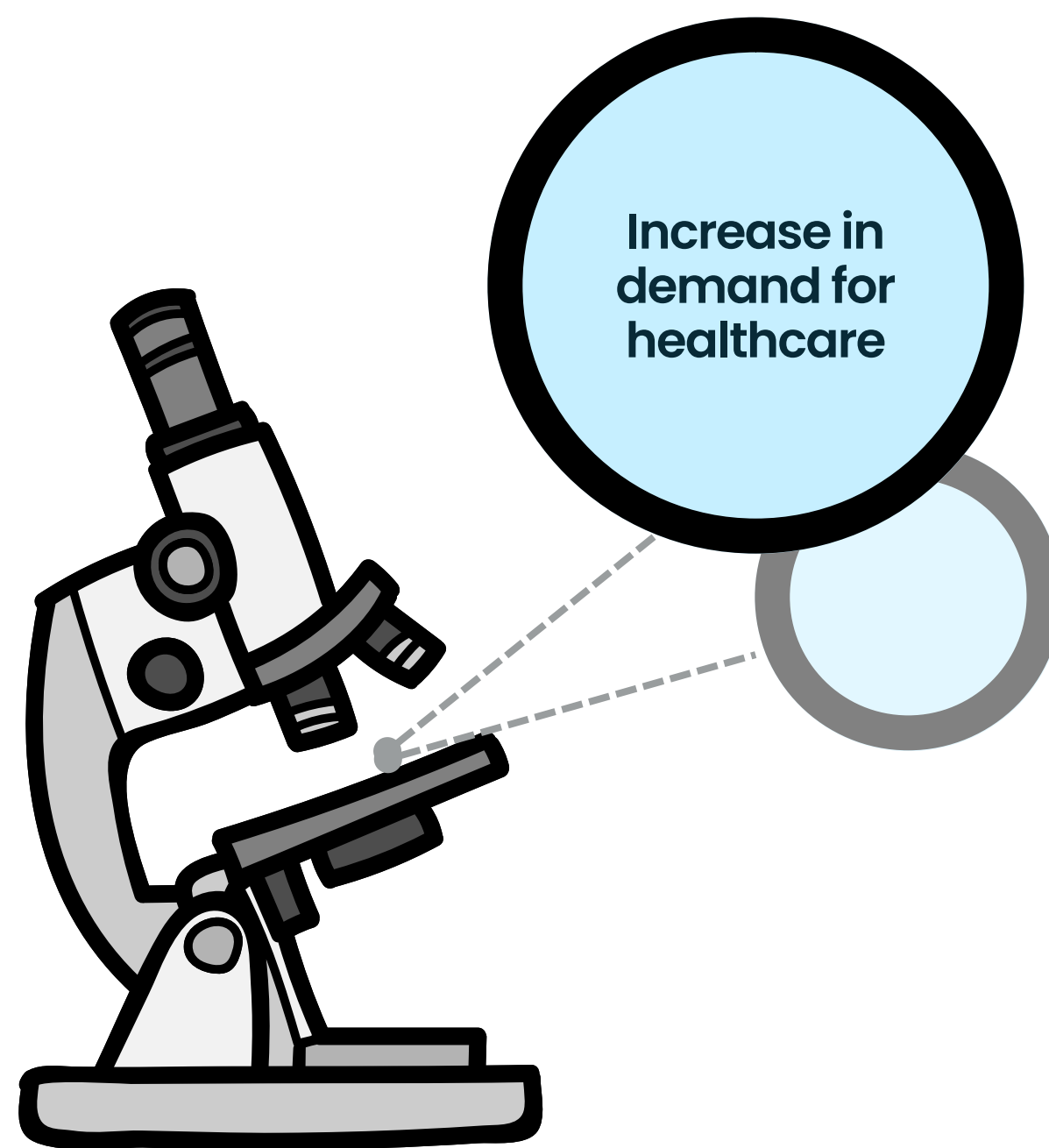
⁸ *The Hierarchy of Nursing | Levels of Nursing*. (n.d.). Alvernia University Online. Retrieved April 13, 2023, from <https://online.alvernia.edu/program-resources/hierarchy-of-nursing/>

⁹ *Health care funding in Canada | CMA*. (2022, October 18). Canadian Medical Association. Retrieved April 13, 2023, from <https://www.cma.ca/news/health-care-funding-canada>

ROOT CAUSE #1: INCREASE IN DEMAND FOR HEALTHCARE

People are living longer as medical technology has vastly improved and the workforce has transitioned away from physically tolling, labour-intensive jobs.^{10 11 12} Elderly people rely on the healthcare system to maintain a high quality of life. As people age they experience more complex and interrelated issues requiring specialized care.¹³ An alarming rate of obesity in North America is also at higher risk of experiencing more serious health issues.^{14 15} The increase in complexity and seriousness of health issues has led to an increase in the demand for healthcare.¹⁶

Capitalism is the driving factor for better healthcare technologies and the transition away from labour-intensive jobs. Capitalism has created the incentive cycle that has produced medications, health technology, and machines that increased productivity through the industrial revolution.¹⁷ The result is prolonged lives and an enhanced quality of life. However, capitalism reduces a person to what they can produce for themselves which incentivizes managers to have a short-term focus because quantitative results, such as an increase in profit, demonstrate a manager's effectiveness.¹⁸



¹⁰ Stead, W. W., & Halvorson, G. C. (n.d.). *The Changing Nature of Health Care - Evidence-Based Medicine and the Changing Nature of Healthcare*. NCBI. Retrieved April 13, 2023, from <https://www.ncbi.nlm.nih.gov/books/NBK52825/>

¹¹ Rice, D., & Galbraith, M. (2008, November 16). *Why and how are we living longer?* physoc.onlinelibrary.wiley.com. Retrieved April 13, 2023, from <https://physoc.onlinelibrary.wiley.com/doi/full/10.1113/EP086205>

¹² Carter, N., & Wilkinson, F. (2022, June 2). *Industrialization, Labor, and Life*. National Geographic Society. Retrieved April 13, 2023, from <https://education.nationalgeographic.org/resource/industrialization-labor-and-life/>

¹³ *Organizing integrated health-care services to meet older people's needs*. (n.d.). NCBI. Retrieved April 13, 2023, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5677611/>

¹⁴ *Obesity - Symptoms and causes*. (2021, September 2). Mayo Clinic. Retrieved April 13, 2023, from <https://www.mayoclinic.org/diseases-conditions/obesity/symptoms-causes/syc-20375742>

¹⁵ *Prevalence of Obesity*. (n.d.). World Obesity Federation. Retrieved April 13, 2023, from <https://www.worldobesity.org/about/about-obesity/prevalence-of-obesity>

¹⁶ D. Doyle, former CEO of providence healthcare, March 22, 2023

¹⁷ Trott, A. M. (2016, May 31). *(How) Does Capitalism Incentivize? Part I*. Prindle Institute. Retrieved April 13, 2023, from <https://www.prindleinstitute.org/2016/05/how-does-capitalism-incentivize-part-i/>

¹⁸ King, M. W. (2021, May 27). *Why the next stage of capitalism is coming*. BBC. Retrieved April 13, 2023, from <https://www.bbc.com/future/article/20210525-why-the-next-stage-of-capitalism-is-com>

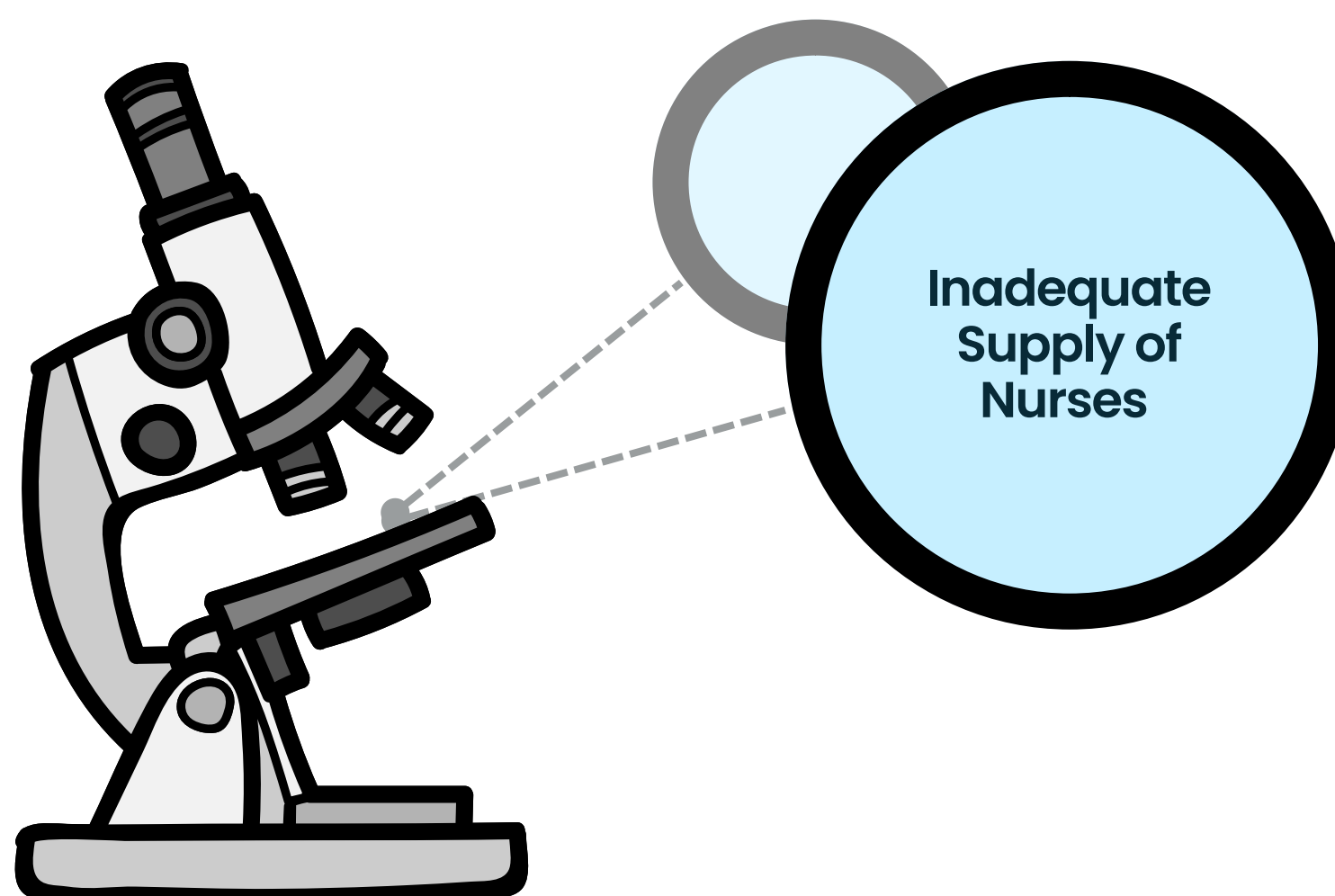
ROOT CAUSE #2: INADEQUATE SUPPLY OF NURSES

01 Funding

With a finite amount of tax dollars, various professions lobby the government. Different health authorities and ministries compete for funding for resources and wages for their employees.¹⁹ There is a disconnect between the administrators who allocate funding and the needs of the nurses who use such resources.²⁰ The result is that nurses do not get funding for the supplies they need and nurses themselves are underpaid. Private practices can offer other healthcare practitioners better wages which contributes to public hospitals being understaffed.²¹

02 Barriers to Education

Out of B.C.'s population of 5 million,²² the province only has 2,000 nursing program seats and even fewer clinical placement positions to service its needs.²³ The shortage has pulled nurse educators out of the classroom and into hospitals while burnout has led to a lack of mentors for clinical positions. So long as there also remains a lack of available educators and mentors to sufficiently meet the demands of the increased intake of students, simply funding additional seats at educational institutions is a short-term solution to the shortage. Moreover, the current curriculum, created 25 years ago, does not factor in how expensive education, living and housing costs have become. Many nursing students are forced to work in hospitals while being in school full time which leads to burnout before they even enter the workforce.²⁴



¹⁹ W. Scott, Co-Owner and Director of Nurse Next Door, March 22, 2023

²⁰ W. Scott, Co-Owner and Director of Nurse Next Door, March 22, 2023

²¹ N. Podhan-Bhallan, Provincial Health Services Authority, March 31, 2023

²² *Quarterly Population Highlights*. (2023, January 1). News. Retrieved April 13, 2023, from https://www2.gov.bc.ca/assets/gov/data/statistics/people-population-community/population/quarterly_population_highlights.pdf

²³ *Hundreds of new nursing training seats coming provincewide*. (2022, February 20). News. Retrieved April 13, 2023, from https://archive.news.gov.bc.ca/releases/news_releases_2020-2024/2022HLTH0004-000250.htm

²⁴ S. Hanson, Nursing Instructor at University of Northern British Columbia, March 17, 2023

ROOT CAUSE #2: INADEQUATE SUPPLY OF NURSES

03 Barriers to Practice for IENs

International Educated Nurses (IENs) face a complex, costly, difficult to navigate and time-consuming immigration, registration and licensing process. They need to have adequate language proficiency, and educational, licensing and immigration requirements. These barriers are such that 47% of IENs are underutilized.²⁵

04 Nurse Burnout

Numerous factors lead to burnout including long hours, few breaks, increased workloads, stress, mental health concerns, and diminished job satisfaction.²⁶ Burnout is primarily the result of the nursing shortage, and the nursing shortage leads to a higher workload for nurses – the root cause of burnout; creating a positive feedback loop. Unfortunately, many nurses are not aware of public health literacy (PHL) which is an individual's knowledge of and ability to “obtain, communicate, process and understand health information and services.”²⁷ Without knowing their rights and though often limited, the services available to them to prevent burnout, nurses are led to this undesirable state.^{28 29 30}

05 Underutilizing Nurses

Nurses are meant to provide direct support for patients to ensure that patients receive the necessary care for their health concerns.³¹ However, an increase in regulatory requirements, primarily in documenting processes, and a higher patient-to-nurse ratio have increased nurse workload³². As a result, nurses are spending less time caring for their patients and more time juggling their administrative tasks.

²⁵ Mackie, C., & Flecker, K. (2022, January 25). *The Struggles of Internationally Educated Nurses in Canada's Residential Care Sector*. WENR. Retrieved April 13, 2023, from <https://wenr.wes.org/2022/01/the-struggles-of-internationally-educated-nurses-in-canadas-residential-care-sector-focus-group-findings>

²⁶ Jean, J. Y. (n.d.). *Burnout: Why Nurses Need More Mental Health Days*. NurseJournal.org. Retrieved April 13, 2023, from <https://nursejournal.org/articles/why-nurses-need-more-mental-health-days/>

²⁷ *Editorial: Health Literacy | UBC Human Resources*. (2021, June 10). UBC Human Resources. Retrieved April 13, 2023, from <https://hr.ubc.ca/working-ubc/news/june-06-2021/editorial-health-literacy>

²⁸ A. Yurag, LPN, March 17, 2023

²⁹ S. Sutanto, RN, March 21, 2023

³⁰ J. Fabula, RN, March 14, 2023

³¹ *Nursing in today's society | Ingram School of Nursing*. (n.d.). McGill University. Retrieved April 13, 2023, from <https://www.mcgill.ca/nursing/events/today>

³² *Nursing Workload and Patient Safety – A Human factors Engineering Perspective*. Age

EXACERBATING THE CRISIS: COVID-19 PANDEMIC INADEQUATE SUPPLY OF NURSES

*“Nurses were already overworked, understaffed and then we just hit a wall due to the pandemic.”
– Apaule Yurag, LPN*

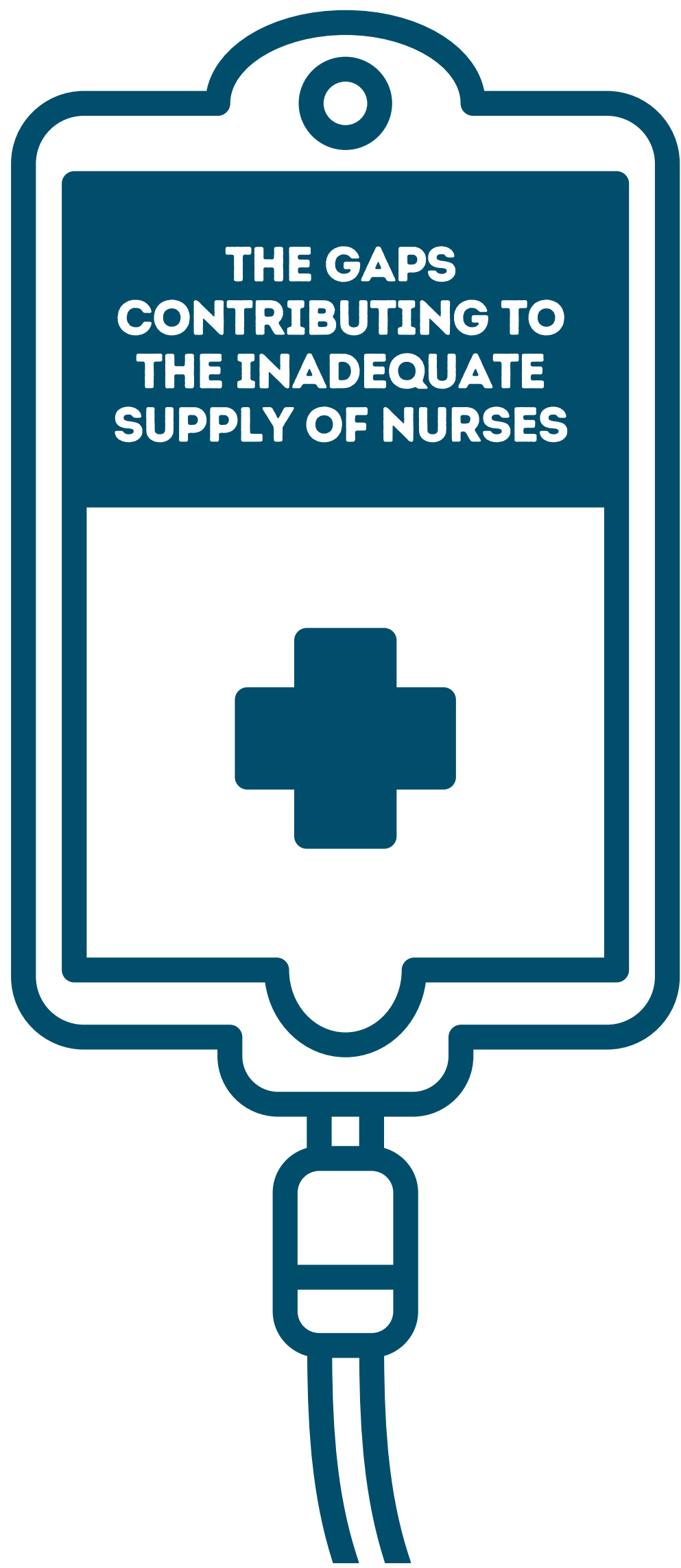
The COVID-19 pandemic uncovered an issue that professionals in the healthcare industry had known long before the health crisis was announced. The pandemic added to the overall workload of nurses as an overwhelming number of patients were admitted to hospitals with the virus and transmitted it to co-workers.³³ The staffing shortages and increased workload led to long hours and consequently, burnout. As the pandemic continued, senior and experienced nurses retired early due to increased health concerns and unmanageable workloads which has exacerbated the complexity-experience gap. Vaccination mandates also led to numerous healthcare practitioners being fired for not taking the vaccine, adding to the inadequate supply.³⁴ The effects of the pandemic are still being felt as the increased workload and burnout have led to lower retention rates among young nurses.³⁵



³³ Lazaruk, S. (2022, March 22). *COVID-19: About 2500 B.C. health-care workers lost jobs over refusal to vaccinate*. Vancouver Sun. Retrieved April 13, 2023, from <https://vancouver.sun.com/news/local-news/about-2500-health-care-workers-lost-jobs-over-refusal-to-vaccinate>

³⁴ Lazaruk, S. (2022, March 22). *COVID-19: About 2500 B.C. health-care workers lost jobs over refusal to vaccinate*. Vancouver Sun. Retrieved April 13, 2023, from <https://vancouver.sun.com/news/local-news/about-2500-health-care-workers-lost-jobs-over-refusal-to-vaccinate>

³⁵ *The Future of nursing in B.C.* (n.d.). BC Nurses' Union. Retrieved April 13, 2023, from https://www.bcnu.org/sites/default/files/2022-12/Future_of_Nursing_In_BC.pdf



THE COMPLEXITY-EXPERIENCE GAP

A nurse's experience in hospitals helps them to deliver high-quality care and communicate with physicians to effectively treat issues.³⁶ The complexity-experience gap is a gap that is emerging as patients are dealing with more complex and interrelated issues but the average experience of nurses is decreasing as a result of increased retirements and low retention rates.³⁷

THE THEORY-TO-PRACTICE GAP

The theory-to-practice gap is the discrepancy between theoretical formation and practical training.³⁸ This failure to translate and apply what is learned in the classroom to the clinical setting increases nurse stress and frustration, diminishing one's sense of job fulfillment and decreasing retention rates.³⁹ Additionally, due to newer technologies, more complex health concerns and evolving standards of care, some nurses feel unprepared or cannot adapt to the changing nature of the workplace.

³⁶ W. Scott, Co-Owner and Director of Nurse Next Door, March 22, 2023

³⁷ G. McCollough, Executive Director of Professional Practice & Nursing/ Clinical Informatics for Providence Healthcare, March 31st, 2023

³⁸ *Theory-Practice Gap: Challenges Experienced by Nursing Students at the Satellite Campus of a Higher Education Institution in Namibia.* (2019, August 2). ERIC. Retrieved April 13, 2023, from <https://files.eric.ed.gov/fulltext/EJ1224150.pdf>

³⁹ *Theory-Practice Gap: Challenges Experienced by Nursing Students at the Satellite Campus of a Higher Education Institution in Namibia.* (2019, August 2). ERIC. Retrieved April 13, 2023, from <https://files.eric.ed.gov/fulltext/EJ1224150.pdf>

IMPACTS OF THE NURSING SHORTAGE

Elderly Population

Nurses are essential caretakers for the elderly and vulnerable who rely on the healthcare system to maintain their quality of life amidst more complex and serious health issues. The nursing shortage increases the risk of infections, diseases, and other medication errors.⁴⁰ The elderly rely on specialized and timely care, especially those with mental and mobility limitations. They are more at risk of rehospitalization which strains the understaffed public health system and worsens health issues among the elderly.⁴¹



Rural & Remote

B.C.'s Indigenous population, many of whom live in the province's rural areas, encounter significant challenges in accessing healthcare services. Nursing vacancy in rural areas is much higher than in urban areas.⁴² This means increased travel time for patients to urban areas to receive care, longer wait times, and a lack of continuity of care. Disproportionate to the province's large Indigenous population, nurses with training in culturally safe care are visibly lacking.⁴³ During the pandemic, many rural ERs in the north were forced into temporary closures due to the extreme staffing shortage.⁴⁴



⁴⁰ *Nursing Workforce*. (n.d.). Canadian Nurses Association. Retrieved April 13, 2023, from https://cna-aiic.ca/-/media/cna/page-content/pdf-en/infographic-nursing-workforce-2018_e.pdf

⁴¹ *Nursing Workforce*. (n.d.). Canadian Nurses Association. Retrieved April 13, 2023, from https://cna-aiic.ca/-/media/cna/page-content/pdf-en/infographic-nursing-workforce-2018_e.pdf

⁴² *Nursing Vacancy Rate*. (n.d.). Canadian Institute for Health Information. Retrieved April 13, 2023, from <https://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#!/indicators/018/nursing-vacancy-rate;/mapC1;mapLevel2;r/2/E>

⁴³ *Cultural safety and humility*. (n.d.). BCCNM. Retrieved April 13, 2023, from https://www.bccnm.ca/Public/cultural_safety_humility/Pages/Default.aspx

⁴⁴ *B.C. Health Care Closure Crisis Backgrounder*. (n.d.). pdf. Retrieved April 13, 2023, from https://www.bcliberalcaucus.bc.ca/wp-content/uploads/2022/07/B.C.-Health-Care-Closure-Crisis-Backgrounder_2022.07.19.pdf?utm_source=mailpoet&utm_medium=email&utm_campaign=ndp-upccs-plagued-by-transparency-issues-and-staffing-shortages_926

SOLUTIONS LANDSCAPE: EXISTING SOLUTIONS

Canada has proactively responded to the need to develop and implement both short-term and long-term solutions for the nursing shortage. As more issues arise, senior leadership and policy makers are responsible for developing and implementing solutions. However, when those stakeholders change, for example when a new government is elected, promising long-term solutions are scrapped by the new leadership.⁴⁵

Organizational

The Nursing Community Assessment Service is a federal initiative, assisting IENs to practice in Canada.⁴⁶ The B.C. Nurses Union (BCNU) supports nurses by advocating for better nurse-to-patient ratios, safer work environments, and the economic and social well-being of their members.⁴⁷ For-profit at-home care organizations are doing a good job to help prevent rehospitalizations that would otherwise increase the workload of nurses.⁴⁸ At-home care organizations are heavily relied upon by hospitals to keep beds free and reduce rehospitalizations among elderly, at-risk and vulnerable patients.⁴⁹

Monetary

Across the country, provinces have increased funding for their education systems to expand the scope of practice, specialty training and available spots in their nursing programs. In 2021, the provincial government provided \$5 million to its B.C. universities and \$8.7 million was invested to create a new nursing program.⁵⁰ Federally, Canada launched a Student Loan Forgiveness for Nurses program,⁵¹ an initiative that may incentivize work in underserved areas of the country. Recently, the B.C. government has also pledged to reduce fees for IENs.⁵² Additionally, the BCNU is currently negotiating better compensation as part of their new collective agreement.

Structural

A current solution that has had success in closing the complexity-experience gap and reducing the underutilization of nurses is team-based care which enables multiple practitioners to work together to enable fellow team members to focus on their specific roles.⁵³ Nurses are central to this team-based care as they are the main contact point for patients and nurse insights help practitioners such as physicians deliver the best patient-centered care possible.

⁴⁵ W. Scott, Co-Owner and Director of Nurse Next Door, March 22, 2023

⁴⁶ *About us.* (n.d.). Nursing Community Assessment Service. Retrieved April 13, 2023, from https://www.ncasbc.ca/about_NCAS/Pages/default.aspx

⁴⁷ *Nurse Staffing Crisis.* (2022, November 24). BC Nurses' Union. Retrieved April 13, 2023, from <https://www.bcnu.org/news-and-events/update-magazine/2022/spring-2022/nurse-staffing-crisis>

⁴⁸ W. Scott, Co-Owner and Director of Nurse Next Door, March 22, 2023

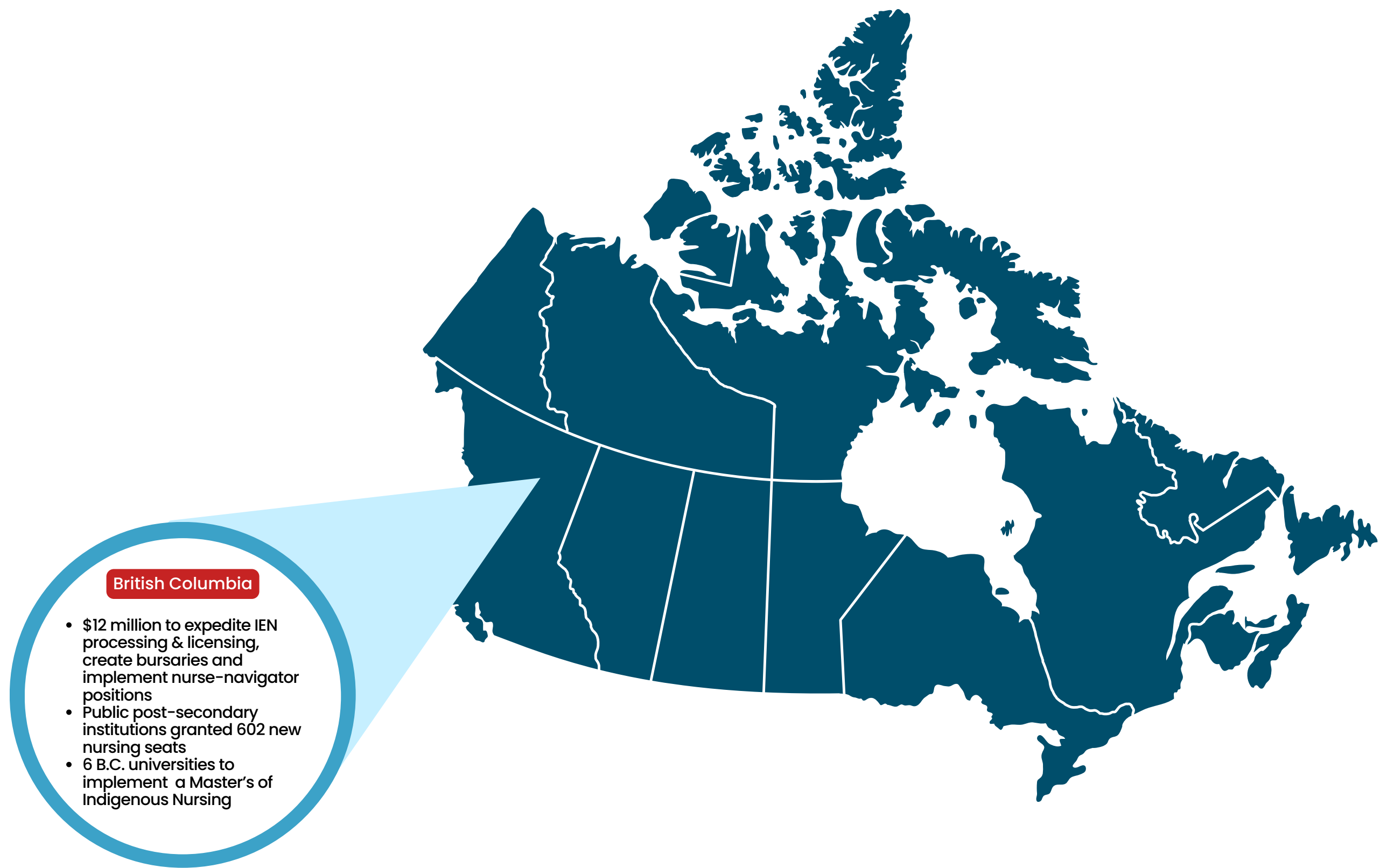
⁴⁹ W. Scott, Co-Owner and Director of Nurse Next Door, March 22, 2023

⁵⁰ *Hundreds of new nursing training seats coming provincewide.* (2022, February 20). News. Retrieved April 13, 2023, from https://archive.news.gov.bc.ca/releases/news_releases_2020-2024/2022HLTH0004-000250.htm

⁵¹ *Apply for Canada Student Loan Forgiveness for Family Doctors and Nurses - How much you could receive.* (n.d.). Canada.ca. Retrieved April 13, 2023, from <https://www.canada.ca/en/services/benefits/education/student-aid/grants-loans/repay/assistance/doctors-nurses/amount.html>

⁵² *B.C. will pay fees, fund schooling upgrades to get more nurses in health-care system.* (2023, January 9). CTV News Vancouver Island. Retrieved April 13, 2023, from <https://vancouverisland.ctvnews.ca/b-c-will-pay-fees-fund-schooling-upgrades-to-get-more-nurses-in-health-care-system-1.6223540>

⁵³ G. McCollough, Executive Director of Professional Practice & Nursing/ Clinical Informatics for Providence Healthcare, March 31st, 2023



HOW BC COMPARES TO THE OTHER PROVINCES

Investing in IENs to replenish the workforce has become a Canadian healthcare priority.^{54 55}

Expanding the nursing curriculum with new seats and programs has also remained a continuous effort throughout the provinces and territories.^{56 57 58 59} In 2022, B.C. funded over 600 new nursing seats across public post-secondary institutions in the province.⁶⁰ Notably, a Master's program in Indigenous Nursing is also underway in six universities, adopting a holistic approach to healthcare.⁶¹ Comparingly, active foreign recruitment are features of the territories, Quebec and Saskatchewan's efforts.^{62 63 64} Financial incentives that aim to attract and retain nurses such as grants, bursaries and relocation allowances are common across Canada.^{65 66 67}

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⁵⁴ *Attracting and training international nurses.* (n.d.). Alberta.ca. Retrieved April 13, 2023, from <https://www.alberta.ca/release.cfm?xID=84822C9C21925-BAAE-C7EF-ECD6D00833B34B37>

⁵⁵ *College of Registered Nurses implements suite of changes to expedite and modernize internationally educated nurse registration process and support Manitoba health system - College of Registered Nurses of Manitoba.* (2022, November 7). College of Registered Nurses of Manitoba. Retrieved April 13, 2023, from <https://www.cnm.mb.ca/2022/11/07/college-of-registered-nurses-implements-suite-of-changes-to-expedite-and-modernize-internationally-educated-nurse-registration-process-and-support-manitoba-health-system/>

⁵⁶ *Hundreds of new nursing training seats coming provincewide.* (2022, February 20). News. Retrieved April 13, 2023, from https://archive.news.gov.bc.ca/releases/news_releases_2020-2024/2022HLTH0004-000250.htm

⁵⁷ Rushowy, K. (2021, May 14). *2000 new nursing education spots coming to Ontario colleges, universities.* The Toronto Star. Retrieved April 13, 2023, from <https://www.thestar.com/politics/provincial/2021/05/14/2000-new-nursing-education-spots-coming-to-ontario-colleges-universities.html>

⁵⁸ *Conditional approval granted for two new nursing programs.* (2023, February 22). Government of New Brunswick. Retrieved April 13, 2023, from https://www2.gnb.ca/content/gnb/en/news/news_release.2023.02.0078.html

⁵⁹ *Government Invests in More Nursing Seats.* (2022, July 12). Government of Nova Scotia. Retrieved April 13, 2023, from <https://novascotia.ca/news/release/?id=20220712001>

⁶⁰ *Hundreds of new nursing training seats coming provincewide.* (2022, February 20). News. Retrieved April 13, 2023, from https://archive.news.gov.bc.ca/releases/news_releases_2020-2024/2022HLTH0004-000250.htm

⁶¹ Hemens, A. (2023, January 12). *B.C. schools plan Indigenous nursing program.* Vancouver Sun. Retrieved April 13, 2023, from <https://vancouversun.com/news/local-news/bc-schools-indigenous-nurses>

⁶² Lycan, E. (2022, December 2). *Bonuses designed to retain, recruit nurses.* Whitehorse Daily Star. Retrieved April 13, 2023, from <https://www.whitehorsestar.com/News/bonuses-designed-to-retain-recruit-nurses>

⁶³ Lowrie, M. (2022, January 18). *Quebec looks abroad to solve nursing shortage, but experts say it's not a quick fix.* The Globe and Mail. Retrieved April 13, 2023, from <https://www.theglobeandmail.com/canada/article-quebec-looks-abroad-to-solve-nursing-shortage-but-experts-say-its-not/>

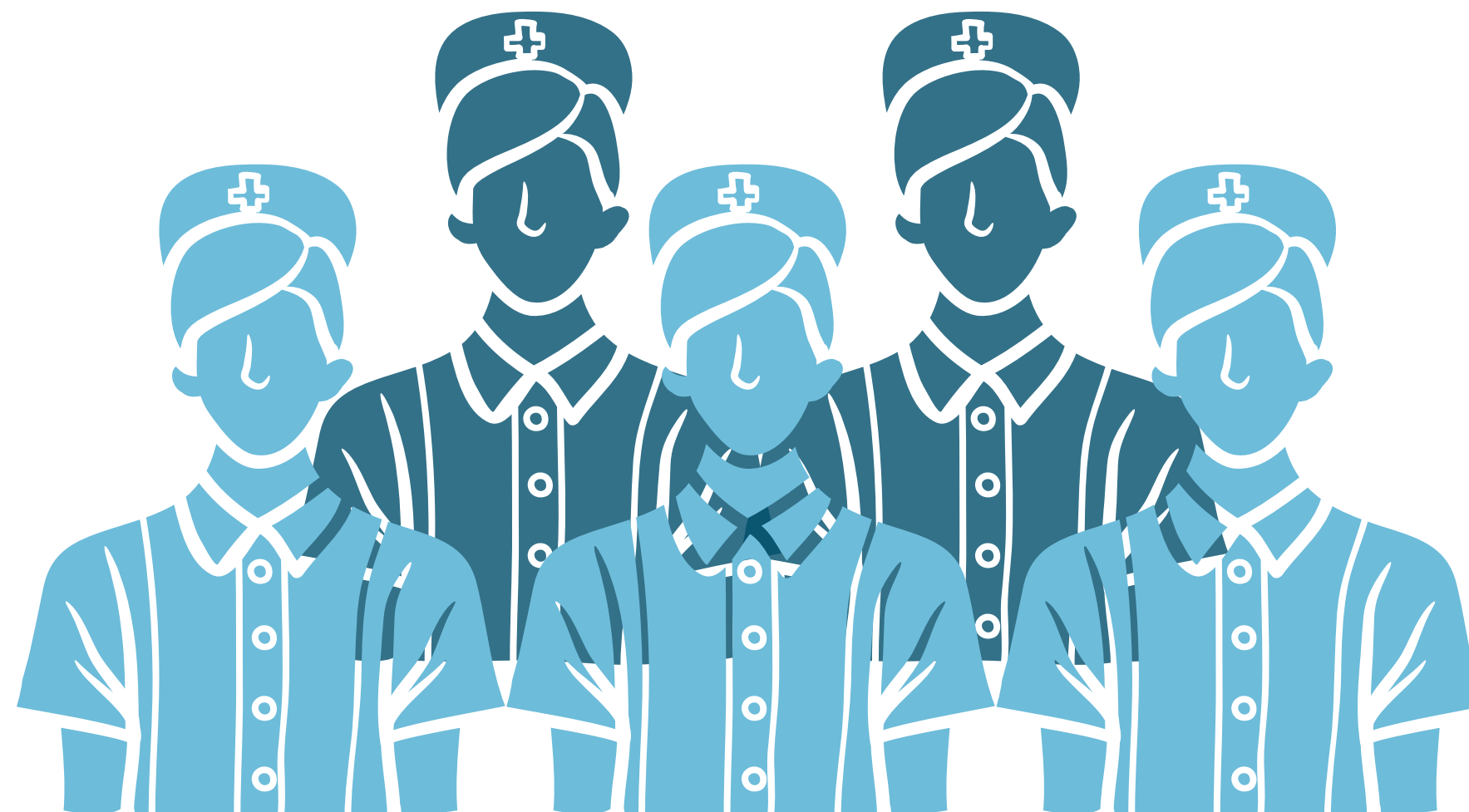
⁶⁴ Langager, B. (2022, November 22). *Saskatchewan nurses union says short-term actions needed to address health care issues | Globalnews.ca.* Global News. Retrieved April 13, 2023, from <https://globalnews.ca/news/9297678/sask-nurses-union-short-term-actions-needed-address-healthcare-issues/>

⁶⁵ Lycan, E. (2022, December 2). *Bonuses designed to retain, recruit nurses.* Whitehorse Daily Star. Retrieved April 13, 2023, from <https://www.whitehorsestar.com/News/bonuses-designed-to-retain-recruit-nurses>

⁶⁶ *Ontario expands grant program for nurses, paramedics, lab technicians who work in underserved areas.* (2023, January 20). CBC. Retrieved April 13, 2023, from <https://www.cbc.ca/news/canada/london/ontario-tuition-nurses-paramedics-1.6720578>

⁶⁷ *P.E.I. nursing shortage needs real solutions, not just campaign promises says union.* (2019, April 8). CBC. Retrieved April 13, 2023, from <https://www.cbc.ca/news/canada/prince-edward-island/pei-nurses-union-staffing-shortage-1.5089121>

⁶⁸ *New Brunswick looks to other jurisdictions for nurses amid ongoing shortage - New Brunswick | Globalnews.ca.* (2023, January 31). Global News. Retrieved April 13, 2023, from <https://globalnews.ca/news/9449920/new-brunswick-nurses-shortage-recruit-quebec/>



PROGRESS FOR IENS

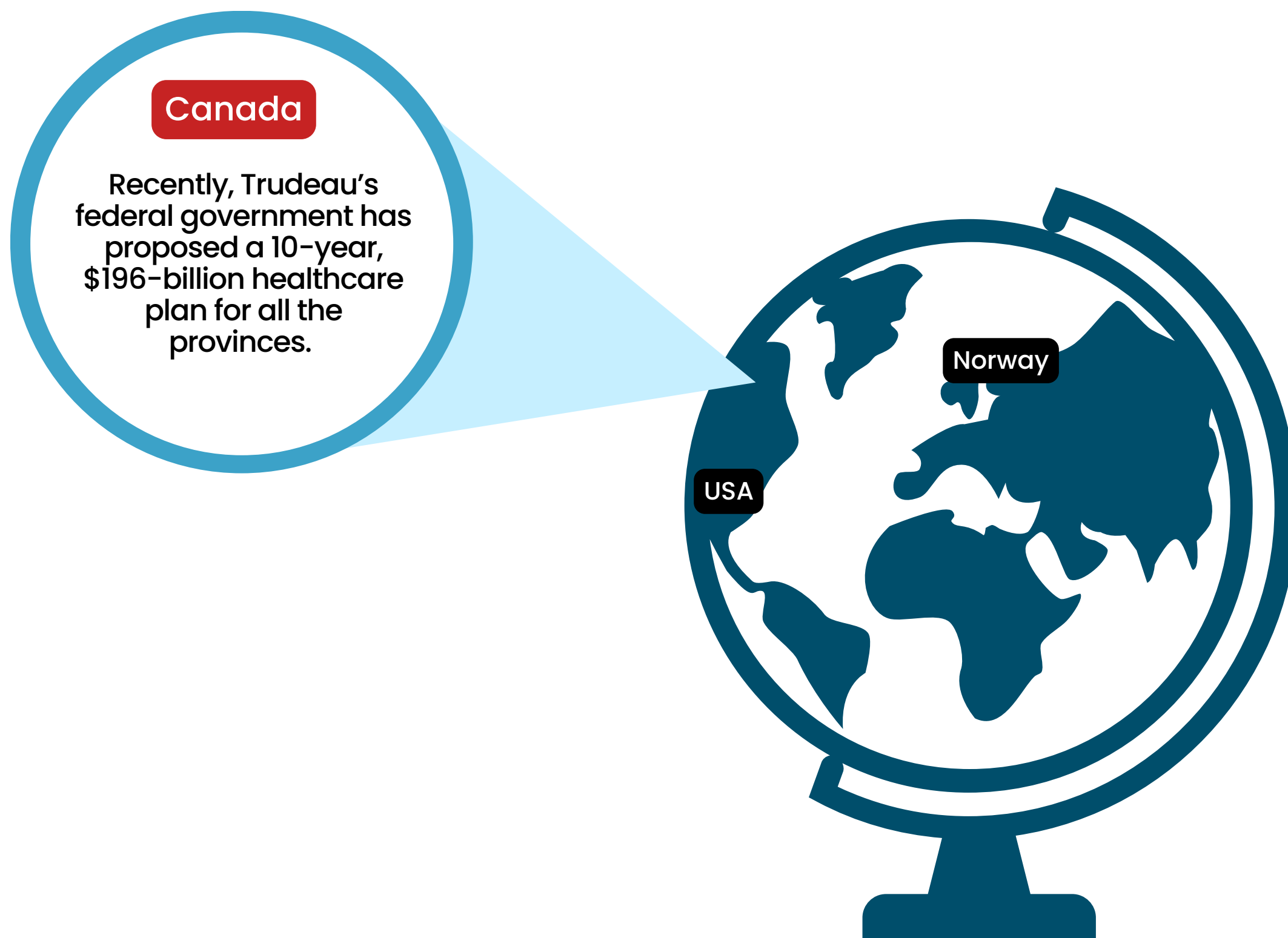
While IENs may wish to practice in Canada to aid the staffing shortage, many are unable to exhaust already limited resources as immigrants and thus opt for other careers in or outside the healthcare system. Given the shortage, the growing number of IENs is being looked to as an untapped resource.⁶⁹ Notably, Alberta’s Departments of Advanced Education, Health, and Labour and Immigration have created a campaign to reduce barriers for IENs.⁷⁰ The three-pronged plan features bridging programs, expanding clinical placements, and an online platform for applicants.⁷¹ In comparison, the B.C government with its College for Nurses and Midwives (BCCNM) and the NCAS has invested \$12 million to support IENs processing to implement “nurse navigator positions” such as probationary opportunities, offering bursaries for candidates and streamlining their regulatory processes.⁷²

⁶⁹ A. Yurag, LPN, March 17, 2023

⁷⁰ *Attracting and training international nurses*. (n.d.). Alberta.ca. Retrieved April 13, 2023, from <https://www.alberta.ca/release.cfm?xID=84822C9C21925-BAAE-C7EF-ECD6D00833B34B37>

⁷¹ *Attracting and training international nurses*. (n.d.). Alberta.ca. Retrieved April 13, 2023, from <https://www.alberta.ca/release.cfm?xID=84822C9C21925-BAAE-C7EF-ECD6D00833B34B37>

⁷² *Supporting international nurses into B.C.'s health system* | BC Gov News. (2022, April 19). BC Gov News. Retrieved April 13, 2023, from <https://news.gov.bc.ca/releases/2022HLTH0120-000589>



HOW CANADA COMPARE TO THE OTHER COUNTRIES

Every country is affected by the nursing shortage because it is a complex issue requiring an intensive, multi-faceted approach. However, some countries have generated and implemented potentially effective strategies. Norway, for example, currently boasts the highest number of nurses per capita in the world.^{73 74} Norway's success can be attributed to its *Competence Lift 2020-25* program which has increased retention rates by focusing on improving workplace conditions, pay, and other essential competencies in nursing.⁷⁵

Privatized healthcare, similar to the US, is a proposed solution to Canada's healthcare crisis, promising overall better care but at a higher cost.⁷⁶ However, it may not be as beneficial in combating the nursing shortage due to systemic issues that exist regardless of wage. While private healthcare offers nurses higher wages, it would not reduce the systemic issues such as burnout, increased workload, or undervaluing nurses, which are necessary to address if any long-term solution is to be effective. The U.S. privatized system also faces a nursing shortage due to regional disparities, lack of funding, an aging population, lack of education, and the impacts of COVID-19.

⁷³ *Countries With The Most Nurses And Midwives Per Capita*. (2020, May 22). World Atlas. Retrieved April 13, 2023, from <https://www.worldatlas.com/articles/countries-with-the-most-nurses-and-midwives-per-capita.html>

⁷⁴ Rice, D., & Galbraith, M. (2020, November 16). .. OECD iLibrary. Retrieved April 13, 2023, from <https://www.oecd-ilibrary.org/sites/015d1834-en/index.html?itemId=/content/component/015d1834-en>

⁷⁵ Rice, D., & Galbraith, M. (2020, November 16). .. OECD iLibrary. Retrieved April 13, 2023, from <https://www.oecd-ilibrary.org/sites/015d1834-en/index.html?itemId=/content/component/015d1834-en>

⁷⁶ *Is our healthcare system broken?*. (2021, July 13). Harvard Health Publishing. Retrieved April 13, 2023, from <https://www.health.harvard.edu/blog/is-our-healthcare-system-broken-202107132542>

As our team identifies potential levers to change, our team considers how to increase the supply of nurses while also decreasing their workload. Exhausting resources on one effort will only exacerbate the current system's inefficiencies.

Foremost, changes within the system require funding. Recently, Trudeau's federal government has proposed a 10-year, \$196-billion healthcare plan for all the provinces.⁷⁷ As of March of this year, B.C. has agreed to the offer. The province is now on track to receive \$273 million this year and \$27.47 billion for the next decade.⁷⁸ Our team has asked how this additional funding may be best budgeted and utilized as a lever of change. We've identified investment gaps in preventive measures and staff retention strategies to reduce healthcare spending in the long run.

GAPS & LEVERS OF CHANGE: RESTRUCTURING NURSING EDUCATION



The current nursing curriculum seems to be dependent on the assumption that new nurses will enter an “optimal system” with proper staffing and sufficient resources.⁷⁹ Unfortunately, this is no longer the reality. The complexity–experience gap is exacerbated by a lack of senior mentors and the theory–to–practice gap where new nurses often experience clinical culture shock.⁸⁰ Thus, the transition from student to new graduate nurse and integration into the workplace is a critical period for intervention.⁸¹ As a lever of change, standardizing nurse residency would mandate a minimum 6-month regulatory program for new graduates in hospitals, decreasing the risk of error, improving confidence in the workplace, and thus ensuring career satisfaction.⁸²

Increasing retention rates is also crucial to decrease the dependency on hiring more nurses to replenish the workforce.⁸³ Reducing attrition may encapsulate regular career mentorship and subsidizing pathways for continuing education, be it nurse professional development days, post-graduate degrees, instructing certifications, or LPN to RN transitioning. This increases the supply of nurses with the necessary experience to reconcile the complexity–experience gap and maximize the utilization of nurses as they'd be best equipped to face the evolving standards of care. Greater government subsidies on education incentivize nurses to return to school, especially IENs who are currently underutilized.

⁷⁷ *B.C. and Ottawa reach a \$27B health funding agreement.* (2023, March 1). CBC. Retrieved April 13, 2023, from <https://www.cbc.ca/news/canada/british-columbia/bc-ottawa-health-funding-agreement-1.6764593>

⁷⁸ *B.C. and Ottawa reach \$27B health funding agreement.* (2023, March 1). CBC. Retrieved April 13, 2023, from <https://www.cbc.ca/news/canada/british-columbia/bc-ottawa-health-funding-agreement-1.6764593>

⁷⁹ S. Sutanto, RN, March 21, 2023

⁸⁰ Sculer, M. S. (2021, March 22). *The Reflection, Feedback, and Restructuring Model for Role Development in Nursing Education.* Sage Journals. Retrieved April 13, 2023, from <https://journals.sagepub.com/doi/10.1177/0894318420987165>

⁸¹ Moore, A., Galbraith, M., Parks, K., & Beckling, A. (2008, November 16). *Transitioning from student to new graduate nurse.* journals.lww.com. Retrieved April 13, 2023, from https://journals.lww.com/nursingmadeincrediblyeasy/Citation/2020/01000/Transitioning_from_student_to_new_graduate_nurse.9.aspx

⁸² A. Yurag, LPN, March 17, 2023

⁸³ Reichert, C. (2022, November 18). *Sustaining Nursing in Canada.* Canadian Federation of Nurses Unions. Retrieved April 13, 2023, from https://nursesunions.ca/wp-content/uploads/2022/11/CHWN-CFNU-Report_-Sustaining-Nursing-in-Canada2022_web.pdf

“Nurses aren't taught on how take care of themselves.” – Sarah Sutanto, RN

GAPS & LEVERS OF CHANGE: PAN-CANADIAN NURSE SUPPORT



Canada's high rate of nurse turnover is attributed to poor mental health, diminished job fulfilment, and increasing risks of workplace violence.⁸⁴ With their existing experience and accreditations, early retirees and nurses who have changed professions are key demographics to aid the staffing shortages. Having identified a lack of initiatives to attract and reintegrate these nurses into the workforce, we propose a Pan-Canadian program to standardize support for all nurses with an emphasis on public health literacy. Reconciling this gap seeks to implement PHL certification courses, peer support sessions⁸⁵ and mental health resources or counsellors inside hospitals.⁸⁶ Also lacking is upgraded clinical support infrastructure to reduce workload and increase efficiency. For instance, we propose the use of speech-to-text recording devices to expedite documenting processes for nurses, allowing more time for direct patient care.⁸⁷ A Pan-Canadian program would ultimately standardize mental, personal and workplace support.

⁸⁴ Pallas, L. O., Murphy, G. T., Shamian, J., & Li, X. (n.d.). *Impact and determinants of nurse turnover: a pan-Canadian study*. Wiley Online Library. Retrieved April 13, 2023, from https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1365-2834.2010.01167.x?saml_referrer

⁸⁵ Reichert, C. (2022, November 18). *Sustaining Nursing in Canada*. Canadian Federation of Nurses Unions. Retrieved April 13, 2023, from https://nursesunions.ca/wp-content/uploads/2022/11/CHWN-CFNU-Report_-Sustaining-Nursing-in-Canada2022_web.pdf

⁸⁶ J. Fabula, RN, March 14, 2023

⁸⁷ D. Doyle, former CEO of providence healthcare, March 22, 2023

LESSONS LEARNED: KEY INSIGHTS & REFLECTION

Amidst growing publicity, we began this project with our expectations of the nursing shortage heavily influenced by the media. After critically examining the desperate cycle of staffing shortages, increased workloads and nurse burnout, we've discovered how multifactorial the healthcare system truly is. Any change to the system, be it in solutions or exacerbating factors, has diverse impacts on all other stakeholders. Our interviews underscored the necessary reciprocity in the system; solutions must both reduce workload and increase the supply of nurses. It is difficult to comprehend 70h work weeks, yet, unfortunately, this is the reality for some nurses, many with families of their own and who are not exempt from the economic and social realities of the province. Beyond the bedside, the nurses we publicly praise for their dedication and resilience must also receive this same support internally from the very system dependent on their vitality.

