From Shortage to Solution: A Study of Nursing Retention Policies in British Columbia

by

Kristen Belsher

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Declaration of Committee

Name:	**Kristen Belsher**
Degree:	**Master of Public Policy**
Title:	**From Shortage to Solution: A Study of Nursing Retention Policies in British Columbia**
Committee:	**Chair:** **Yushu Zhu** Professor, Public Policy
	Grace Jaramillo Supervisor Term Assistant Professor, Public Policy
	Alaz Munzur Examiner Term Assistant Professor, Public Policy

Abstract

The nursing shortage in British Columbia is causing significant issues across the province and threatens to collapse the entire healthcare system. As of 2022, there is a shortage of approximately 3,570 nurses, a number that has been steadily increasing due to the consequences of the COVID-19 pandemic. A major contributor to this shortage is lack of retention, or a shortfall of incentives for nurses to remain in the workforce despite its challenges. This study uses a jurisdictional scan and multi-criteria analysis (MCA) to identify and analyze new policies to retain the current nursing workforce. The study concludes with a bundle of policy recommendations for hospitals, healthcare providers, and the provincial government to maintain, preserve, and improve the current number of nurses in BC.

Keywords: nurses; nursing shortage; nursing retention; healthcare; COVID-19; labour shortage

Dedication

I dedicate this study to Josie Hallam, the greatest nurse of all time.

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Chapter 1. Introduction

In 2020, British Columbia (BC)'s healthcare system was put under unprecedented stress by the COVID-19 pandemic, and one of the groups most impacted was - and still is - nurses. Although many of the problems nurses face in the workplace are not new, a great deal of them have been exacerbated by the pandemic, and the situation faced by hospitals and healthcare providers has become increasingly dire. "The nursing shortage" is now a headline frequently seen in the news, as emergency rooms around the province shut down, wait times reach unreasonable and deadly lengths, and nurses become unable to provide the care that patients require.

Structural and policy change is needed to help support nurses and the healthcare system as a whole. One specific area in which policy can help is in nursing retention. A major cause of the shortage is that many nurses are leaving the profession, and the number of nurses hanging up their scrubs has been growing ever since the pandemic caused undue stress and harm to front-line workers. To stop the shortage, policymakers have a responsibility to hang on to the limited nurses that are already in the system, trained and working. This study focuses on retention strategies instead of recruitment strategies because retention has consistently been overlooked by Canadian governments and healthcare providers. As was found in the jurisdictional scan, the BC government's most recent policies position recruitment as the province's priority. However, bringing new and/or foreign nurses into the system will have a very limited impact on the shortage if pre-existing nurses are leaving.

My research provides a set of policy options to increase the retention of nurses working across BC. Chapter 2 provides background information on the current policy landscape, the global shortage and its impact on Canada and BC, relevant stakeholders, the impact of the aging workforce, the pandemic, job dissatisfaction and burnout, personal safety concerns, the shortage in nursing schools and amongst nursing administration, and policy gaps. Chapter 3 outlines the methodology pursued in this research. Chapter 4 presents the jurisdictional scan with an overview of different jurisdictions around the globe and their approaches to the shortage. Chapter 5 outlines the criteria and measures of the chosen policy options. Chapter 6 describes the policy options, which are as follows: the adoption of an 80/20 work/education model; a

mentorship program; legislating a nurse-patient ratio; implementing support programs within workplaces; and developing an automated staffing tool. Chapter 7 presents a multi-criteria analysis, in which the criteria and measures are used to assess the selected policy options. Finally, Chapters 8 and 9 present my conclusions and policy recommendations.

Chapter 2. Background

2.1. Overview

In 2019, there were 439,975 registered nurses across Canada (Canadian Nurses Association, 2021); as of 2022, approximately 40,000 are located in BC (Ministry of Health, 2022). In Canada, responsibilities for the healthcare system fall to provinces and territories. While the federal government has a constitutional role in healthcare and provides funding, it is the provinces and territories that deliver health and other social services (Health Canada, 2011). This includes regulation of nurses: in British Columbia, the profession is legislated by the *Health Professions Act*, and the *Nurses (Registered) and Nurse Practitioners Regulations* (Ministry of Health, retrieved 2022).

The number of nursing position vacancies in Canada nearly doubled between 2020 and 2021, from 12,860 to 22,425 (Buchan et al., 2022). The most recent statistics from Statistics Canada show a shortage in BC of 3,570 nurses, which is significantly higher than the pre-pandemic number of vacancies: 1,715 in March 2019 (Government of Canada, 2015). The statistics now show that healthcare vacancies have reached an all-time high, with a shortage of more than 34,000 nurses across Canada in the first quarter of 2022 (Government of Canada, 2022). This counts for two thirds of all health sector vacancies in the country (Government of Canada, 2022). The shortage has impacted every province and territory in Canada, some more severely than others. As health is under provincial jurisdiction, the provinces have been taking different approaches to the crisis. These include policies like the new Office of Health Care Professionals Recruitment in Nova Scotia, an uptick in registration of internationally-educated nurses in Ontario, and the development of foreign recruitment missions (particularly from France, Belgium, Lebanon, Brazil, and northern Africa) in Quebec (Buchan et al., 2022).

However, it must be noted that even if vacancies are filled and nurses are retained, the demand for healthcare is rising. Not only has the pandemic created new pressures on the system, but an increase in immigration to BC, the toxic drug crisis, and the aging population are also driving up demand for healthcare that is not being met.

In BC, registered nurses, nurse practitioners, licensed practical nurses, and registered psychiatric nurses are regulated by the British Columbia College of Nursing Professionals and Midwives (Canadian Nurses Association, 2022). Through the *Health Professions Act*, the College is responsible for establishing, monitoring, and enforcing standards of practice and professional ethics (BC College of Nurses and Midwives, retrieved 2022).

2.2. What's Currently Being Done

The provincial government is aware of the nursing shortage and has begun taking steps to address it. In February of 2022, the government announced they were adding 602 nursing seats to post-secondary institutions in BC, bringing the total number of seats for training nurses up to 2,600 (Ministry of Health, 2022; Smart, 2022). Funding for these seats will come from the 2021 budget's allocation to expanding post-secondary education and training (Ministry of Health, 2022; Smart, 2022).

Another strategy to fill the shortage is to recruit foreign-trained nurses. In April 2022, the provincial government announced they were allocating $12 million to fast-track foreign nurses through the accreditation process in order to recruit 1,500 new nurses, as well as providing $9 million in bursaries to ease the financial burden of going through the accreditation process (DeRosa, 2022). A further $2 million will be spent on recruiting foreign-trained nurses (DeRosa, 2022).

However, according to the BC Nurses' Union and BC's Labour Market Outlook, 26,000 nurses will be needed by 2031 (BC Nurses' Union, 2022; DeRosa, 2022). Therefore, more will need to be done to bolster the numbers.

In November 2022, discussions were held between federal, provincial, and territorial health ministers. Specifically, the provinces asked the federal government to increase its share of provincial and territorial healthcare costs from 22% to 35% (Lampkin, 2022). However, this goal was not achieved. Following the talks, premiers claimed there had been "no progress" on securing the increased federal funding needed to sustain the healthcare system (Lampkin, 2022). Thus, while there are ongoing efforts at different levels of government to support the healthcare system, there remains more work to be done.

2.3. Stakeholders

The primary stakeholder of the nursing shortage is nurses themselves. Any proposed policy solution must be informed by those it directly affects - nurses. As the main legislators of healthcare in Canada, provincial governments are another significant stakeholder; in BC, it is the Ministry of Health that is primarily responsible. Federal government also has a stake in healthcare, although it is more related to funding than actual administration.

Many interest groups are impacted by nurses. Anyone involved in the healthcare system, such as hospitals, healthcare providers, long-term care providers, and family medicine practices have an interest in nurses. Both the public and private sector employ nurses. Furthermore, they are a section of the workforce that Canadians of any age can come in contact with, especially the elderly, meaning that any Canadian can be considered a stakeholder.

Nurses have many non-governmental organizations acting on their behalf. One of the most important is the BC Nurses' Union, which protects and advocates for nurses in their workplaces, as well as the British Columbia College of Nursing Professionals and Midwives, which regulates the profession. Other organizations with similar interests in Canada include the Canadian Federation of Nurses Unions, the Canadian Health Workforce Network, the Canadian Nurses Association, and the Canadian Institute for Health Information, among others. International actors include the World Health Organization and the International Council of Nurses.

2.4. Causes of the Nursing Shortage

2.4.1. Global Shortage

The nursing shortage is not unique to BC or even Canada. It is a global crisis, impacting numerous countries around the world. In recent years, the World Health Organization (WHO) has campaigned to bring attention to this issue, conducting studies and publishing reports urging governments and stakeholders to tackle the issue.

Half of the world's health workers are nurses, underscoring just how important they are to the entire global healthcare system (World Health Organization, 2020). In

April 2020, the WHO published a report called *State of the world's nursing 2020: investing in education, jobs and leadership*, written in partnership with the International Council of Nurses (ICN) and Nursing Now. The report finds that as of 2018, there is a global shortfall of 5.9 million nurses among the 191 WHO member state countries, with low- and middle-income countries facing the worst shortages (World Health Organization, 2020). In particular, the countries with the most severe shortages and the slowest growth rates are countries in the African, South-East Asian, and Eastern Mediterranean regions, as well as some in Latin America (World Health Organization, 2020). Furthermore, high-income countries have nurse graduation rates that are three times higher than low-income countries (Buchan et al., 2022). These problems are exacerbated by migration: one out of every eight nurses practices in a country other than where they were born or educated (World Health Organization, 2020). Consequently, a call is put out for nurse mobility between countries to be monitored, and responsibly and ethically managed through regulation. The report urges governments to address global needs by ameliorating nursing education, strengthening nurse leadership, and creating 6 million new jobs by 2030 just to maintain numbers, let alone fill shortages (World Health Organization, 2020).

These numbers and statistics reflect research and surveys completed before the COVID-19 pandemic. Since the pandemic, workloads and the workforce have drastically changed, particularly for those on the front line. Increasing numbers of nurses are leaving the profession or making plans to do so; 20% of ICN's National Nurses Associations reported an increased rate of nurses leaving (International Council of Nurses, 2021). Heavy workloads, insufficient resources, burnout, and pandemic-related stress appear to be the driving factors (International Council of Nurses, 2021). In contrast to the WHO's pre-pandemic estimate of 6 million new nurses needed around the globe, a report from ICN expects a shortfall of up to 13 million nurses in the near future (International Council of Nurses, 2021).

2.4.2. Impacts of the COVID-19 Pandemic

The COVID-19 pandemic put nurses in danger. Nurses represented around 14% of COVID-19 cases around the globe, despite only making up 3% of the global population (International Council of Nurses, 2022). In BC, nurses made up 9.4% of COVID-19 cases, compared to the general population's rate of 2.8% (BC Nurses' Union,

2021). There were more than 180,000 health worker deaths around the world due to COVID-19 (International Council of Nurses, 2022).

In Canada, 47% of nurses surveyed met the diagnostic cut-off indicative of potential post-traumatic stress disorder (PTSD) following the pandemic (Buchan et al., 2022). Another survey found that nurses who cared for COVID-19 patients reported higher chronic fatigue, lower work satisfaction, and higher intention to leave the profession than those who did not (Buchan et al., 2022).

Seventy-six percent of BC Nurses' Union members said their workloads had risen since the pandemic, and a further 51% of nurses working in emergency departments and intensive care units said they were more likely to leave the workforce due to the pandemic (Smart, 2022). Their health has also suffered because of the pandemic: in BC, 65% reported a deterioration in their physical health and 82% in their mental health (BC Nurses' Union, retrieved 2022).

2.4.3. Aging Workforce

While the pandemic is an undeniable reason as to why increasing numbers of nurses are leaving the profession, there are pre-pandemic reasons for the shrinking workforce as well, such as the aging workforce. While the global aging population means that more healthcare workers are needed to support regular aging citizens, healthcare workers are aging right alongside them. As nurses get older, more of them are inclined to retire, and the workforce needs to be replenished.

The aforementioned WHO report highlights the potential global impact of the aging workforce. While nurses tend to be young, the American and European regions are particularly at risk of more nurses reaching retirement age, which presents further challenges to maintaining the already-existing workforce (World Health Organization, 2020). One in six nurses around the world are expected to retire in the next 10 years, though in the wake of COVID-19, these numbers are expected to have changed drastically (World Health Organization, 2020). To address the shortage, the number of nurse graduates around the globe will have to increase by an average of 8% per year, highlighting the importance of education in fighting the nursing shortage (World Health Organization, 2020).

However, this particular problem is less severe in Canada, as the age of the Canadian nursing workforce tends to skew younger than the global workforce (Canadian Nurses Association, 2021). Still, it is an essential factor to look at when determining why retention is an issue and the causes of the shortage as a whole.

2.4.4. Job Dissatisfaction and Burnout

According to a report from James Buchan, Howard Catton, and Franklin A. Shaffer, titled *Sustain and Retain in 2022 and Beyond,* nurses have reported increasing levels of burnout and job dissatisfaction in recent years. Even before the pandemic, high workloads, low staffing levels, long shifts, and low control were all associated with causing burnout (Buchan et al., 2022, p.18). In Canada in late 2021, 24.4% of nurses intended to leave or change jobs in the next three years as a direct result of burnout caused by the pandemic (Government of Canada, 2022). Furthermore, burnout was linked to lower patient safety and increased patient dissatisfaction (Buchan et al., 2022, p. 25). The consequences of burnout, therefore, do not just impact the nurses themselves - they are also felt by patients. Even if a nurse doesn't leave the profession entirely, burnout can also lead to nurses taking more time off work and calling in sick, further exacerbating shortages despite the numbers of nurses appearing sufficient.

Another consequence of burnout is the high cost of turnover. Nurses don't quit in a vacuum: employers must then spend time recruiting and training new nurses, which takes up time, resources, and funding, and negatively impacts productivity (Buchan et al., 2022, p. 26). Turnover can cost as much as 1.3 times the salary of a nurse already working (Buchan et al., 2022, p. 46). In the US, hospitals can expect to spend over $16,000 per nurse on turnover and burnout (Buchan et al., 2022, p. 46). Consequently, funding and resources that could be put to other uses if current nurses were being retained are instead being spent on training just to keep the workforce at its original size.

2.4.5. Personal Safety

Nurses around the world are more likely to be exposed to violence in the workplace than other professions (International Council of Nurses, 2022). For example, healthcare workers in the US face rates of violence that are 16 times higher than rates in other professions (International Council of Nurses, 2022). In British Columbia, 31% of all

injuries resulting from violence are nurses in the workplace (Luymes, 2020). Nurses experience verbal assault, physical abuse, and sexual assault, often from patients, but from their families as well (Luymes, 2020). A study conducted by the University of British Columbia also directly attributed violence in the workplace to the nursing shortage, and the consequent workload issues: when nurses are overworked, they receive complaints that can turn into violence (Luymes, 2020). A heavy workload, therefore, can be considered a root of the problem. There is a circular impact here – not enough nurses lead to an increased workload, which leads to more violence in the workplace, which feeds into low retention and contributes to the worker shortage in the first place.

Personal safety is also a significant problem because of the nature of the job. For example, the risk of infection of Ebola for healthcare workers in West Africa during the 2014 outbreak was 21 to 32 times higher than the risk for the general population (International Council of Nurses, 2022). As discussed, the COVID-19 pandemic also had severe impacts on the safety of nurses in the workplace.

One of the most important ways to protect nurses from viruses and this type of workplace danger is to provide them with adequate protective equipment, or Personal Protective Equipment (PPE). However, even this solution faces challenges. In Canada, 49% of nurses surveyed in 2020 indicated some level of disagreement over accessing PPE in their workplace (Buchan et al., 2022). In British Columbia specifically, 36% reported that their employer restricted access to PPE, and 73% stated that PPE was locked up (BC Nurses' Union, retrieved 2022). They reported that PPE was often inappropriate, poor quality, poorly sized, and/or insufficient to protect against viruses (BC Nurses' Union, 2021).

2.5. Nursing Schools

As mentioned, one of the provincial government's strategies for addressing the shortage is to add 602 nursing seats to post-secondary institutions in BC. It should be noted that this is a long-term strategy, as it requires many years of schooling to graduate from these programs before becoming fully integrated into the workforce. However, many nursing schools are already stretched beyond their capacity, causing further issues for a potential policy solution.

Before the new seats were added, BC schools had more prospective students than they could accept. In 2021, applications at the University of British Columbia (UBC) and the British Columbia Institute of Technology (BCIT) rose by more than 30% from years prior (Lazaruk, 2021). While this indicates that the new seats are in demand and will be filled quickly, the schools have limited capacity to adequately train these new seats.

There are several obstacles to the effective implementation of an educational strategy. Many of the nursing schools in BC do not have sufficient instructors to handle an influx of new students, as these schools and their administrations are facing their own shortages (Culbert, 2022). The Nursing Education Council of BC cites retirements and an inability to hire new staff as the key factors driving this instructor shortage (Culbert, 2022). For example, BCIT expects “a lot” of their nursing faculty to retire in the upcoming three to five years, thereby leaving a gap in what the school can actually handle even if there is funding for new seats (Lazaruk, 2021).

Furthermore, the current healthcare system does not have the capacity to satisfactorily handle the new students either. While seats may have been increased, clinical placements were not, meaning that students are unable to complete the required number of hours practicing in a clinic to graduate in a timely manner (Culbert, 2022). There is already a lack of placements, even before the new seats have been filled. Furthermore, nurses are already overworked, leaving them with little time to train students, particularly if the number of students increases in a substantive way (Culbert, 2022). More nurses are needed as instructors in the classroom and in the hospitals if increasing nursing students is to be an effective policy strategy.

2.6. Policy Gaps

More action from provincial and federal governments on retention policies is needed to reinvigorate the workforce. There is a lot of focus being put on recruiting new nurses from outside the province, as well as increasing the capacity of local schools to train new nurses (DeRosa, 2022; Ministry of Health, 2022; Smart, 2022). While these are important strategies to combat the shortage, they are long-term solutions as it takes many years to recruit and train new nurses. As such, it does little to stem the tide of nurses currently in the profession who are choosing to leave. This is a significant source

of the shortage, as no matter how many new or foreign nurses are brought to BC, it means little if they do not stay. In the current policy landscape, there are opportunities being missed for retaining those already in the workforce.

Chapter 3. Methodology

This is a qualitative study that relies on information found by conducting a literature review, jurisdictional scan, and multi-criteria analysis to identify and evaluate policy options.

A literature review was conducted both to understand the current landscape, and to identify potential areas for further study. This included a survey of academic and grey literature, particularly reports published by non-profits, government bodies, unions, international organizations, and interest groups related to healthcare.

Based on the findings of the literature review, I conducted a jurisdictional scan to examine other jurisdictions and countries that have current policies and strategies for maintaining their nursing workforce. Case studies are presented from across Canada, the United States, and Europe. Each one explores policies currently being undertaken or proposed by the jurisdiction to increase nursing retention numbers in their areas. Jurisdictions from elsewhere in Canada were selected due to their similarities to BC and its provincial government and healthcare system, while selections from the United States were reviewed due to the country's leadership in the area and the breadth of policies being implemented there. Europe was chosen for a broad scan to gain further information and exposure to as many solutions as possible.

I then used multi-criteria analysis to examine some of the policy options found in the jurisdictional scan, and their applicability to BC. This type of analysis is a comparison of different policy options by assessing their effects, performance, impacts, and trade-offs, and is a systematic approach to reviewing policies by measuring them against a set of selected criteria and measures.

Chapter 4. Jurisdictional Scan

The selected cases represent a variety of jurisdictions attempting to address their own nursing shortages. In particular, the case studies focus on policies intended to retain existing nurses. Policy actions are broken down by country and region around the world.

4.1. Canada

4.1.1. Alberta

In 2001 and 2007, Alberta implemented seven different recruitment and retention programs across the province. One strategy focused on entry to the workforce, two focused on pre-retirement planning, and four focused on introducing flexible work options. As the first is a recruitment strategy, it is not of interest for the purposes of this study.

The pre-retirement planning strategies included a Retirement Preparation Program, in which nurses intending to retire soon were able to designate 20% of their time for non-patient-related work; and the Pre-Retirement Full-Time-Equivalent Reduction Program, in which retiring nurses could reduce their full-time hours while maintaining their pension (Weidner et al., 2012).

The four flexible work options included a Weekend Worker Program, in which nurses working weekends were paid their full hourly salary for only 0.8 hours of work; a Flexible Part-Time Program, which allowed for greater shift scheduling flexibility; a Seasonal Part-Time Position Program, where nurses could compress their annual full-time equivalent hours into a smaller part of the year; and a Benefit-Eligible Casual Employee Position Program, where casual employees could receive full benefit coverage (Weidner et al., 2012).

Unfortunately, none of the programs contained a formal evaluation component, and thus the success of each of them is difficult to quantify. While an evaluation project and survey were undertaken in 2012 and found that overall, nurses involved in these programs had higher levels of job satisfaction, and the programs were generally viewed

as having a positive impact on retention and recruitment, the lack of a formal quantitative evaluation meant that the findings were unreliable as the results could've been impacted by other intervening variables (including the restructuring of the provincial health system in 2009 and/or the H1N1 pandemic) (Weidner et al., 2012). The researchers concluded that if pilot projects were to be attempted again, more discipline would be needed in evaluating the initiatives. Furthermore, there was also a lack of implementation plan following the programs, meaning that they have not been integrated into Alberta's healthcare system (Weidner et al., 2012).

4.1.2. Newfoundland and Labrador

Newfoundland and Labrador implemented an 80/20 staffing model pilot project in their Central Regional Health Authority, specifically in a long-term care facility. An 80/20 staffing model allows participants (nurses) to spend 80% of their time providing direct patient care, and 20% of their time in professional development activities (M. Power & Stuckless, 2012). This allows for more leadership and clinical training opportunities and is intended to help nurses both grow their careers and refine their skills.

One of the largest challenges in implementing this program was the nursing shortage itself. Since there was already a shortage, it was difficult to cover a further 20% reduction in direct patient care. To cover this 20%, two part-time nurses increased their hours of work, and an extra casual nurse was hired for more coverage. They supported the seven nurses who participated directly in the project for 12 months (M. Power & Stuckless, 2012). Professional development activities undertaken included university courses, a diploma program, conferences, workshops, and seminars.

An evaluation of the program found that participants had a high level of satisfaction with the model, higher confidence in their nursing abilities, and increased interest in pursuing further professional development activities. Managers and patient families at the work site reported that the program had a positive impact on the quality of care, as well as an increase in leadership (M. Power & Stuckless, 2012). Unfortunately, a formal investigation of the program's impact on staff retention was not completed. Furthermore, it was concluded that the 80/20 model was not sustainable due to the financial and human resources challenges experienced. Therefore, the sustainability and transferability of the program was not deemed to be successful enough for its continued

implementation or possible applicability elsewhere in the province, and the program was not continued despite the positive outcomes (M. Power & Stuckless, 2012).

4.1.3. Nova Scotia

The most comprehensive assessment of policies to tackle nursing shortages across Canada is *Applied Workplace Solutions for Nurses*, published by the Canadian Journal of Nursing Leadership in 2012. Nova Scotia developed a three-pronged project in an effort to increase recruitment and retention of nurses across the province. The three initiatives included a new-nurse graduate orientation and transition program, the coordination of new graduate hiring, and the development of a mentorship program. For the purposes of this analysis, which focuses on retention, we will focus on the last initiative.

The 80/20 Late Career Nurse Strategy Mentorship Program Guidelines and Tools was developed as a combination of an 80/20 staffing model and a mentorship program. This initiative provided educational opportunities, including workshops for both nurse mentors and mentees. The Nova Scotia Department of Health and Wellness provided funding for hiring new nurses to cover for the 20% of time now spent on education and training (Canadian Journal of Nursing Leadership, 2012, p.57).

Following the initiative, there was strong interest to continue the project as a provincial program. However, no evaluation was completed on whether or not the program was successful at retaining nurses or increasing job satisfaction (Canadian Journal of Nursing Leadership, 2012, p. 59).

4.1.4. Ontario

In Hamilton, Ontario, a staffing tool was developed to reflect patients' needs and inform clinical staffing plans. Called the Dashboard Project, the intention of the project was to help forecast and make informed decisions on staffing requirements and gain a better understanding of nursing workloads. It did not provide real time, day-to-day data, but instead analyzed historical data to project future staffing levels needed (Canadian Journal of Nursing Leadership, 2012, p. 122).

Nurses were initially distrusting of the project, believing it a strategy to justify staff reductions. Challenges that prevented the regular use and review of the tool by nurses included the nursing shortage and general workload issues, as well as budget constraints. Upon completion of the project, it was decided that it was still a work in progress, and no assessments were made on whether or not it improved staff retention (Canadian Journal of Nursing Leadership, 2012, p. 123).

4.1.5. Saskatchewan

Saskatchewan implemented a staffing tool pilot project called the Synergy-based Patient Scoring Tool, or Syngery Model. The intention was to ensure appropriate staffing levels, thereby ensuring an appropriate level and quality of care, and involve nurses themselves in staffing decisions. Unsustainable nurse-patient ratios are often cited as a reason for nurse burnout and decreased quality in care, and the Syngery Model was developed to address this. The Model allowed nurses, together with management, to adjust nurse-patient ratios depending on changes in the number of patients or their needs. Patient assignment was, under this model, based on need rather than simple ratio numbers, as each patient was given a score depending on their condition and staffing shifts were adjusted to reflect this (Canadian Journal of Nursing Leadership, 2012, p. 103).

One of the largest challenges faced was the project's impact on the workplace's budget. Since staffing was increased when tool calculations indicated more nurses were needed, the staffing budget became larger than originally anticipated. 30 new nurses were added to the unit during the course of the project, and training and integrating them into the tool was found to be difficult. Furthermore, nurses expressed concern about the mix of junior and senior experience that the tool was suggesting for each staffing shift (Canadian Journal of Nursing Leadership, 2012, p. 109).

Results found that patient needs became more visible because of the tool, and nurse leadership was increased due to their direct involvement in decision-making. Following the end of the project, it was determined that more research, refining and evaluation of the tool was needed, and that if significant outcomes were not demonstrated, it would likely not be continued (Canadian Journal of Nursing Leadership, 2012, p. 110).

A second policy in Saskatchewan targets mental health. Following the COVID-19 pandemic, a pilot project called SaskWell was developed. SaskWell was a texting service in which users were connected to self-care tools, tips, and resources via text message, and was intended to have a positive impact on mental health. While available to anyone in the province, it was heavily targeted towards nurses and promoted their wellness and self-care. Three 10-week cycles were completed as part of the pilot (Shin, 2022).

Users who enrolled were matched with a wellness tool based on their internet connectivity, such as a self-guided tool, an online course, an app, or a discussion forum. Wellness tips were also provided to users via text throughout the week. The most popular tips provided were micro-journaling, sleep routine prompts, work-from-home tips, and grounding techniques (Shin, 2022).

The pilot's results showed that SaskWell had an overall positive impact on the mental wellness of its users. Furthermore, it increased awareness and access to mental health resources and tools. Nurses in particular were appreciative that the project was minimal effort, and therefore fit within busy schedules. The latest update from the research team was that they intend to launch the project Canada-wide, or tailor it further to nurses specifically (Shin, 2022).

4.2. Europe

4.2.1. Czech Republic

A report titled *Recruitment and Retention of the Health Workforce in Europe*, published by the Consumers, Health, Agriculture and Food Executive Agency, a branch of the European Union, provides a comprehensive overview and comparison of strategies being used in many different European countries. In the Czech Republic, the government has run a subsidy program since 2009 in which they cover the educational costs for nurses in seven different specialist fields. The subsidy, which is given to the employer of the participating nurse, can cover the cost of the specialist course, the nurse's wages, travel and food costs, or wages to cover nurses filling the roles of those on educational leave. Around 500 to 700 training spots are opened every year by the

Ministry of Health, who funds the program. However, there is no data available on the success of the program, retention-related or otherwise (Barriball et al., 2015, p. 28).

4.2.2. Finland

In Finland, the Huhtasuo Haltuun project was developed from the bottom-up by staff. The city of Jyväskylä was suffering from a shortage of both doctors and nurses. Rather than continue attempts to attract more GPs that had been ongoing unsuccessfully for years, healthcare staff and the municipality switched their focus to hiring nurses and developing a nurse-led health centre. Funding that would have gone to two relatively more expensive GP vacancies was instead put towards four new nurses, who underwent extensive training and additional education to fill the gap in skill (Barriball et al., 2015, p. 27).

As a result of the project, most patients are now seen by nurses rather than GPs. Nurses report feeling higher job satisfaction because they feel their skills and capabilities are better being used. Patients are also responding positively to the program and feel that services have improved; patient outcomes have improved significantly as well. Overall, the project has been deemed a success (Barriball et al., 2015, p. 27).

4.2.3. Netherlands

Buurtzorg, a program that allows for professional autonomy, has seen great success in the Netherlands. Established in 2006, it is a practice in which nurses provide home care in self-directed, autonomous teams with limited managerial oversight and a flat, network-based organization system. These Buurtzorg teams divide tasks among themselves, including planning, work scheduling, administrating, hiring, assessing results, providing care, and more (Barriball et al., 2015, p. 29).

The program has proved that it has low turnover at only 9.3% in 2013, and an even lower sickness absence rate of less than 2%, while other healthcare systems in the Netherlands have sickness absence levels of 6.5% (Barriball et al., 2015, p. 29).

4.3. United Kingdom

4.3.1. Derby, England

The Association of UK University Hospitals published an overview of nursing retention practices across England's research and teaching NHS Trusts called the *Nurse Retention Best Practice Guide.* Derby Teaching Hospitals NHS Foundation Trust has a five-strand approach to recruitment and retention in their healthcare workforce. Two strands are of interest for the purposes of this research study. The first is a strategy to improve development opportunities for nurses and midwives. This includes preceptorship programs, mentorship programs, partnerships with local universities, coaching activities, and hosting internal conferences and networking opportunities, among other programs. The second strategy of interest is focused on recognizing and rewarding individuals in the workforce through awards that colleagues, students, patients, and families can nominate nurses and midwives for (The Association of UK University Hospitals, 2017, p. 5).

4.3.2. London, England

At University College London Hospitals, a Nurse Internal Transfer Scheme program was established. Nurses who enrolled in this program were able to move sideways to different hospitals and different specialties. The goals of this program were to retain nurses by providing them with more opportunities to develop their careers, improve job satisfaction while supporting personal development, and allow nurses to determine their own career paths by having many different opportunities made available to them. As a result, there was an increase in the retention of nurses, and the hospitals were able to promote specialty areas that were normally hard to recruit nurses for. Furthermore, it allowed administrators to view areas and specialties in which there were ongoing problems if they noticed a particularly high number of requests to transfer out of an area (The Association of UK University Hospitals, 2017, p. 4).

4.3.3. Nottingham, England

In 2009, Nottingham University Hospitals introduced the Health and Wellbeing programme with the intention of improving staff satisfaction, recruitment, and retention.

The program focuses on improving the physical and emotional wellbeing of staff, including nurses, by offering active and social activities such as fitness classes and workshops on stress. The program has seen continued success in improving satisfaction, though little research has been done on its impact on retention (The Association of UK University Hospitals, 2017, p. 6).

4.3.4. Scotland

In Scotland, a web-based development programme financed by the Scottish government was introduced in 2006 called *Flying Start NHS*. Mentors provide support while new employees complete 10 learning units online as part of an orientation to the National Health Service (NHS) (Barriball et al., 2015, p. 24). While data on the program's impact on retention is not available, surveys have shown that participants enjoy the program and view it as a positive experience. Specifically, they have stated that it helps develop clinical skills and confidence.

The program was successful enough that in 2012, Queensland Health in Australia also adopted it. It was found to be very adaptable between the two jurisdictions. Here, participants have cited the program's ease of use and support for supervision practices as the most valuable aspects of *Flying Start*, but like in Scotland, its impact on retention has not been measured (Barriball et al., 2015, p. 25).

4.3.5. Southampton, England

Hospitals in Southampton have established a "retention hotline" for nurses who are considering leaving the profession. Started in 2015, the goals of the hotline are to pre-empt and identify nurses who want to leave, provide a resource independent from direct managers to allow staff to discuss issues, and inform the development of long-term retention strategies. The hotline serves as both a source of data collection, and an opportunity to hold one-on-one discussions with people who intend to leave. However, the hotline had a few challenges upon its implementation: staff were not necessarily convinced that it was truly independent from management and worried about backlash, and potential leavers may not have contacted the hotline early enough for it to make a difference. In essence, the hotline has limited impact if staff do not embrace it. As it

stands, no data was made available about how effective or successful the hotline has been (The Association of UK University Hospitals, 2017, p. 12).

4.4. United States

4.4.1. California

The California Nurse Mentor Project was a 3-year pilot project in the early 2000s that involved over 450 participants across 4 hospitals. The project set up newly hired or newly graduated nurses with an experienced, tenured nurse as a mentor. The project's intention was to increase job satisfaction and employee retention, as well as offer cultural sensitivity and competency training (Mills & Mullins, 2008).

Following the project, the results were deemed successful as nurses who participated had a higher rate of retention than those who did not (at a rate of 8% of turnover for participants, and 23% of turnover for non-participants). Furthermore, cost savings per hospital over the three years (while accounting for the program cost) were estimated to be between USD 1.4 million and 5.8 million because of the lower turnover. Both mentors and mentees also reported higher job satisfaction, confidence, and cultural awareness towards coworkers and patients (Mills & Mullins, 2008).

A second policy in California is the legislated minimum nurse-patient staffing ratio, which was introduced in 2004 with different ratios for different types of hospital units/nursing specialties. Despite being an often-suggested solution to overburdened and overworked nurses, it was not hugely successful. Many hospitals were unable to meet the ratios and found it a challenge. Even when they did, it was found that administrators had further difficulties ensuring that nurses were available when needed/"at all times," as mandated by the legislation (Spetz et al., 2000). It was also found that there was no apparent change in the quality of patient care or safety events. However, the legislation change did result in more employment of registered nurses and less of unlicensed nursing assistants (Spetz et al., 2000).

Further research found that there were many unintended consequences to the mandated nurse-patient ratios in California. This included the reduction of non-nursing personnel, nurses losing autonomy and flexibility, difficulty finding quality nurses, and increased costs and budget cuts which lead to reduced services elsewhere in hospitals.

The consequences have been found to lead to lower job satisfaction and more work due to the reduction in ancillary staff, both of which are causes, not solutions, of the nursing shortage (District of Columbia Hospital Association, 2016).

4.4.2. Indiana

In 2004, St. Francis Hospital and Health Centers in Indianapolis, Indiana found that their nurse turnover rate was growing - it had reached 31% in 2004 (Fox, 2010). Two years later, they implemented a nurse mentorship pilot project to address the turnover. This program saw experienced nurses help their newly-registered nurse mentees through the health authority's initial onboarding training program, and then continue interacting with them while they began work on their new units. The nurses were expected to remain in regular contact, complete evaluation forms, and meet face-to-face at least seven times throughout the year. As an incentive for experienced nurses to sign up for the program, they were given a bonus of 3.5% of their annual salary (Fox, 2010).

The pilot lasted for a year and included 12 nurse mentors and 12 mentees. Upon its conclusion, the researchers found that there had been a 0% turnover rate among participants, and 16.6% for the entire nursing unit (Fox, 2010). Subsequently, the program was expanded to other nursing units and specialties, and by 2009 there were 125 mentors, 200 mentees, and the turnover rate had dropped to 10.3% (Fox, 2010). The study also found that turnover decreased equally among both newly hired nurses and experienced nurses. Job satisfaction also increased in both groups.

4.5. Conclusion

A common thread that emerged from the different jurisdictions was that a policy's success depended on nurses' involvement. Often, this meant nurses running programs themselves, such as in the pilot projects in Finland and the Netherlands, or the mentorship programs. When nurses were directly involved in administration and implementation, they were much more enthusiastic about seeing the program succeed, and felt their skills were valued and better utilized. This indicates that nurses want to be *involved* in the solution, which is a valuable lesson to keep in mind when moving forward. Another notable lesson learned from the jurisdictional scan was the importance

of job satisfaction. In many cases, increased job satisfaction led to increased retention. This indicates that even policies that don't focus on retention *specifically*, but instead focus on making the workplace and jobs better, can successfully retain the existing workforce. Therefore, policy selection does not need to be limited only to policies that target retention.

While this jurisdictional scan explores a variety of policy ideas and pilot projects in place around the world, it also reveals that not many regions are currently working on policies *specifically* focused on nursing retention, or at the least, are not collecting data on their programs' results. There is a wealth of information on *why* there are nursing shortages and extensive data reports on the numbers of nurses leaving the profession, but in many places, this information is not being acted upon. Instead, many regions are either ignoring the problem, or choosing strategies that focus on recruitment strategies rather than retention strategies. Of the countries that have worked on nursing retention solutions, many did not evaluate their programs once they were completed or did not evaluate the program's retention results specifically.

The COVID-19 pandemic has also further complicated matters. Many strategies that were in place before the pandemic were disrupted or, at worst, are now ineffective (Buchan et al., 2022). The healthcare landscape has changed significantly since the pandemic, and policies must change to reflect that. There are now some new policies being implemented, but many are in their early stages; as evident from the scan, most retention policies surveyed are from pre-pandemic, as the post-pandemic policies are still being developed. In the coming years, as many regions wrap up pandemic response and return to "normal" (including a normal in which they now face even worse staffing shortages), new policies intended to address the nursing shortage will emerge. However, it must be emphasized that nursing *retention* is just as important as recruitment, and this blind spot in many regions must be rectified if the shortage as a whole is to be ameliorated.

Chapter 5. Criteria & Measures

Below, six different criteria and their corresponding measures are presented. There are three societal objectives, and three governmental/administrative considerations. These criteria and measures will later be used to analyze and weigh the policy options. A summary is included in a table at the end.

5.1. Key Objective: Efficiency

Efficiency, meaning getting the most out of the productive resources of the economy, is a key objective for this analysis. This is because the collapsing healthcare system and nursing shortage is, in part, a failure to effectively allocate both economic and societal resources to provide sufficient support to citizens. Two criteria are used to assess efficiency: the degree to which the policy impacts stability in a workplace (meaning changes in staff), and the anticipated number of vacancies. The former is measured by estimating the amount and frequency of staff turnover (based on the results of similar policies in other jurisdictions), and the latter is measured by the anticipated number of unfilled posts resulting from the policy. In both cases, a score of “low” is best, while a score of “high” is worst.

5.2. Key Objective: Protection & Security

As outlined in the background, a key problem in the healthcare system is the number of risks nurses take on at their jobs. This includes physical risks, such as patient violence, and risks to nurses’ emotional wellbeing and mental health, such as burnout, stress, and increased sickness. As the second key objective, this objective is considered essential, and two criteria are used to reflect this: the anticipated effect of a policy on burnout, and the anticipated effect of a policy on workplace wellness. The criteria of burnout will be measured by estimating absenteeism, or the average duration of absence per employee, in which “low” is best; and the criteria of workplace wellness is measured by the anticipated job satisfaction, in which “high” is best.

5.3. Development

As an objective, development is concerned with promoting the full realization of both individual and institutional capacity, which depends upon a supportive environment. An increase in skills and knowledge does not only contribute to individual capacity, but also benefits the workplace as a whole. Therefore, this objective will be assessed using education as a criterion, or the impact that the policy option will have on increasing the skill and knowledge of nurses. It will be measured by the anticipated number of hours nurses will be able to spend on educational pursuits and professional development as a result of the policy, with “high” as the ideal rating.

5.4. Cost

Cost, as a criterion, reflects the anticipated cost of a policy to either the federal or provincial government, or a hospital or healthcare provider. Rather than focusing on specific numbers, cost will be estimated on a sliding scale of “low”, “medium”, and “high”, relative to the other policies presented. “Low” cost is ideal, while “high” is not.

5.5. Administrative Complexity

The criterion of administrative complexity assesses the challenges that either the government, the healthcare provider, or both may face when implementing a policy. It is measured by the need for developing new programs, infrastructure, and/or processes, or for hiring new skills and talent that are not currently in place in the workplace that is administering the program. “Low” need is ideal, as it means there is little new administrative work or development needed, while “high” is undesirable.

5.6. Stakeholder Acceptance

Many stakeholders share concerns over nurses and the healthcare system as a whole. Consequently, their acceptance of policies has been selected as a criterion. As mentioned in the background, these stakeholder groups include: healthcare providers, nurses’ unions, municipal, provincial, and federal government, non-profit organizations, and citizens of BC, among others. This criterion is measured by the number of groups or organizations that are anticipated to accept or oppose the selected policy option,

determined by measuring the reactions of similar groups to similar policies in other jurisdictions. A rating of “high” is best, meaning high levels of acceptance, while a rating of “low” is worst.

Table 1: Summary of Criteria and Measures

Objective	Criteria	Measure
Efficiency	Stability in the workplace	Amount and frequency of staff turnover (low is best)
	Vacancies or unfilled job postings	Number of unfilled posts (low is best)
Protection and Security	Burnout due to an unsupportive environment	Average duration of absenteeism (low is best)
	Anticipated changes to workplace wellness	Job satisfaction feedback (high is best)
Development	Continuing education of nurses	Number of hours spent on professional development (high is best)
Cost to government	Cost to provincial government or healthcare provider	Cost (low is best)
Administrative complexity	Anticipated challenges faced when administering the policy	Number of new structures needed for implementation (low is best)
Stakeholder acceptance	Anticipated response from stakeholders	Number of positive reactions from stakeholder groups (high is best)

Chapter 6. Policy Options

The following are the five policy options chosen for analysis. They are a mix of policies that could be implemented by either the provincial government or healthcare providers, or a mix of the two. They were chosen based on the findings from the case studies.

6.1. 80/20 Program

This policy option involves implementing an 80/20 staffing model. An 80/20 model allocates 80% of nurses' time to direct patient care, and 20% of their time to professional development activities. This could include a variety of activities, such as courses, workshops, or conferences. Nurses could choose the topics they want to focus on, whether it is general skill refinement, focus on a specialty, or the development of leadership skills.

This policy would require funding from the provincial government or other interested parties to cover the cost of the educational and professional development activities. Furthermore, more funding would be needed to cover the 20% gap in direct patient care. This gap could be covered by hiring more part-time nurses, more full-time nurses, or developing float teams that are able to switch between units and fill spaces on a temporary basis.

6.2. Mentorship Program

This policy option involves developing a mentorship program that matches newly-graduated or newly-hired nurses with experienced, tenured nurses. The mentorship would last through any new-hire orientation activities and beyond, as mentors would be expected to be available to their mentees until they are fully situated. For the purposes of this study, the program will last one year. One senior nurse could host multiple mentees, according to the pre-existing workload of their position.

While this policy would not require further funding, it would require administration and organization to match up the mentee and mentor nurses and ensure they are keeping up with the program. Incentives, such as monetary bonuses, priority access to

shift scheduling, or increased resources and support, may be needed to encourage both mentors and mentees to sign up and devote their time to the partnership.

6.3. Legislated Ratio

This policy would require the provincial government to legislate mandated nurse-patient ratios. The intention is to make healthcare providers hire more nurses if they are operating understaffed, and therefore decrease the potential of burnout. Even if providers are not understaffed, implementing a mandatory ratio would help ensure workloads do not become too heavy and that nurses can fully meet the needs of their patients.

In California, where nurse-patient ratios are mandated, the exact ratio depends on the unit or specialty of the nurse. For the purpose of this analysis, the proposed ratio that is used is one nurse per four patients, as it is the average across all specialties in California.

6.4. Support Program

This policy is for healthcare providers to develop and implement support programs that their employees could take advantage of in the workplace. Similar to the strategy in Nottingham, UK, this would require fostering a more inclusive and safer workspace by involving employees in events such as fitness classes and mental health workshops. The intention would be twofold - to encourage physical health, and to learn about and create an open space for employees to discuss mental health. By doing this, the aim is to increase job satisfaction and make the workplace a more supportive space for nurses.

Of the five policies proposed, this is the most open-ended option. The support program could focus on social activities, physical activities, or mental wellness activities. Activities could range from workshops in the workplace to automated services like SaskWell, as long as they are focused on support. One of the benefits of this policy is its flexibility, and how it can be adapted to better fit the needs of the specific workforce and/or region it is designed for. However, it should be noted that the flexibility of this policy makes it difficult to precisely anticipate the impacts in a standardized way.

Nonetheless, any form of support program would be more effective than the absence of one.

6.5. Staffing Tool

The final policy option explored in this analysis is the development and implementation of an automated staffing tool. Inspired by the pilot projects in Saskatchewan and Ontario, the tool would be an app or software downloaded onto already-existing computers in the hospital. It would help inform staffing decisions and determine which units need nurses and how many, depending on patient needs and nurse workloads. The intention would be to alleviate the workload by offloading administrative tasks and better organizing resources.

The tool would either need to be developed from the ground up or adapted from one of the existing pilot projects in this space. Funding could be obtained from federal or provincial governments, but development of the tool would be completed by healthcare providers or contractors.

Chapter 7. Policy Analysis

Table 2: Summary of Policy Analysis

Criteria	80/20 Program	Mentor Program	Legislated Ratio	Support Program	Staffing Tool
Efficiency	Low (3)	Low (3)	Medium (2)	Low (3)	Medium (2)
Efficiency	High (1)	Low (3)	High (1)	Low (3)	Low (3)
Protection and Security	Low (3)	High (1)	Medium (2)	Medium (2)	Low (3)
Protection and Security	Medium (2)	Medium (2)	Low (1)	High (3)	Low (1)
Development	High (3)	Medium (2)	Low (1)	Medium (2)	Low (1)
Cost to Government	High (1)	Low (3)	High (1)	High (1)	Medium (2)
Administrative Complexity	Medium (2)	Low (3)	High (1)	High (1)	High (1)
Stakeholder Acceptance	Medium (2)	High (3)	Low (1)	Medium (2)	Medium (2)
Total Score	**17/24**	**20/24**	**10/24**	**17/24**	**15/24**

7.1. 80/20 Program

As evidenced by the case studies presented above, the 80/20 model is very effective at ensuring stability. It is a popular program among nurses, leading to significantly less turnover, and so it is scored as “low” (low turnover) for the first criterion, efficiency. Not only does enrolment in the first place present an attractive opportunity, but it is an ongoing benefit for nurses as they can continue to grow their skills, both in leadership and for their profession. However, the largest drawback of the program is the pressure it puts on employers to recruit more staff. To ensure nurses can spend 20% of their time on continuing education, more nurses are needed to cover the gap in patient

care. The nursing shortage means there aren't enough nurses to begin with; the need to hire more for this program to function is a serious drawback. Therefore, this policy would likely contribute to increased job vacancies, and therefore results in a "high" score for the second efficiency criterion.

This policy scores well for the two protection and security measures. It is expected to decrease burnout, as it allows nurses to take a break from patient care and devote 20% of their time to other pursuits. Therefore, absenteeism is expected to decrease, and so it is scored as "low." Furthermore, it fosters a supportive workplace in which education and career development are encouraged rather than ignored. This is also expected to decrease burnout. Though the policy does not directly address workplace wellness, such as safety or mental health support, creating a supportive environment in itself is expected to increase job satisfaction and foster generally positive feelings towards the workplace. It is rated "medium" as it will likely contribute to a limited increase in job satisfaction.

A "high" score is assigned to this policy for the criteria of development, as it is directly related to this objective – that is, it increases the education of nurses. Of the five policies presented for analysis, this is the only one to score high in this area. This is notable, as providing an opportunity for career development is an excellent way to increase nurse retention and encourage current employees to stay.

However, there are drawbacks to this policy. One of the largest is the cost. In the 80/20 model, the employer, or government, is expected to pay for the nurse's continuing education, or at least the portion that is completed in the workplace during 20% of the nurse's time. Even if educational courses are not paid for, the nurse is still expected to be paid a full wage despite not doing work directly related to patient care. Furthermore, as mentioned, more nurses will need to be hired to cover the 20% gap in service; this means more funding will be needed to cover more salaries. This policy has been attempted in Canada before, including at Royal Inland Hospital in Kamloops, BC (Canadian Journal of Nursing Leadership, 2012). In every case, the downfall of the program and reason it was no longer continued was due to a lack of funding. Therefore, the cost to government is rated as "high."

Administrative complexity is scored “medium,” as no new infrastructure will be needed, but there will be an extra workload for administrative staff. In particular, schedules will need to be adjusted to accommodate nurses that are covering the 20% patient care gap, and as each nurse works less, more nurses will need to be scheduled and provided with administrative support. However, nurses would be expected to coordinate their own education and career development plans, taking some of the burden off the employer and administration. Finally, stakeholder acceptance is expected to be mixed, and is therefore rated as “medium.” Nurses’ interest groups, such as nurses themselves, their unions, and nursing-related non-profits, are expected to be supportive, as this policy directly supports their development and education. However, there is expected to be some pushback from whichever group provides the funding (whether it is the employer or the government), as it is an expensive policy to implement.

Table 3: Analysis of the 80/20 Policy

Criteria and Measure	Results	Scoring
Efficiency - stability in the workplace	Increased stability as nurses have the opportunity to advance their careers Lighter workload as nurses now have time specifically dedicated to something other than patient care	Low (3)
Efficiency - vacancies or unfilled job postings	More nurses or support staff would be needed to cover the 20% gap in patient care	High (1)
Protection and Security - burnout due to an unsupportive environment	Gives nurses a break from patient care, leading to less burnout	Low (3)
Protection and Security - anticipated changes to workplace wellness	Does not directly relate to workplace wellness, but would create an environment more supportive of education and thus increase job satisfaction	Medium (2)
Development - continuing education of nurses	Directly relates to furthering nurse education and career development	High (3)
Cost - cost to provincial government or healthcare provider	Government and/or employer would pay for educational courses or resources Government and/or employer would have to hire more employees to cover the 20% gap in patient care	High (1)

Administrative complexity - anticipated challenges faced when administering the policy	Adjustment of schedules to cover the 20% gap in patient care would be needed Scheduling more nurses due to each individual nurse working less also needed Nurses would coordinate their own education	Medium (2)
Stakeholder acceptance - anticipated response from stakeholders	Positive from nursing interest groups as it focuses on career development Pushback from employers and/or administration due to the extra organization and hiring needed	Medium (2)

7.2. Mentorship Program

The mentorship policy option focuses on strengthening relationships between nurses as the main method of increasing retention. It is expected to decrease turnover and is consequently rated as “low” for the first efficiency measure of stability, as case studies have proven that nurses who have served as mentors and mentees are more likely to stay in their workplaces. This is likely because of the relationships and community it builds between new and experienced nurses, the perception that mentoring is a worthwhile and valuable contribution to the workplace and the future of nursing, and the break it provides from direct patient care. Another benefit of this policy is that it does not create any new job postings or leave any vacancies; no one new is hired or needed, as the participants are all nurses who are already in the workplace. Therefore, it receives a score of “low” due to the low number of expected vacancies as a result of the policy.

Results for the protection and security of nurses under this policy are mixed. It is not expected to decrease burnout, as it does not tackle nurses’ high workloads. Instead, it will increase them by adding something new to their workload without taking anything away. Consequently, it is rated “high” as there is still expected to be a high about of absenteeism. However, the second measure fares much better. It is anticipated that by forging relationships between mentors and mentees, a more supportive environment will be created among coworkers. Nonetheless, this does little to impact other aspects of workplace wellness like mental health or physical wellness. Therefore, while job satisfaction is expected to increase, it is by a limited amount; therefore, this policy is rated “medium” for this criterion.

A “medium” score is assigned to the development criteria for this policy as the results are different for the two groups of participants, and therefore, only a limited amount of new education and skills are gained. For tenured nurses - those serving as mentors - they have the opportunity to develop leadership skills, but otherwise this policy does not impact their education or career development. New nurses - those serving as mentees - fare much better, as they receive training and support that has the potential to propel them further in their careers.

The cost to government or employers for this policy is expected to be "low,” as it does not require any new funding. Furthermore, it is a policy that takes place entirely in-house, meaning no new administration or processes are needed. Instead, it merely adds new duties to existing staff.

Administrative complexity for this policy is expected to be “low.” As mentioned, it does not require any new infrastructure, but instead builds on what’s already in place. Furthermore, while the administration would need to organize the program up front, uptake beyond this would be the responsibility of the mentors and mentees. Lastly, stakeholder acceptance is rated as “high.” Employers and the government are expected to be supportive as the policy requires little effort or funding from their side, and nurses’ groups are expected to support it as it creates stronger bonds between employees and encourages younger nurses to join, and remain in, the profession.

Table 4: Analysis of the Mentorship Program Policy

Criteria and Measure	Results	Scoring
Efficiency - stability in the workplace	Closer bonds are formed among coworkers, encouraging them to stay	Low (3)
Efficiency - vacancies or unfilled job postings	No new vacancies would be created by this policy	Low (3)
Protection and Security - burnout due to an unsupportive environment	This policy would mean more work for existing, tenured nurses, and would not decrease their workload	High (1)

Protection and Security - anticipated changes to workplace wellness	Workplace wellness would increase as coworkers get to know each other better and support one another Does not directly support any other wellness initiatives	Medium (2)
Development - continuing education of nurses	Tenured nurses would not further their education or career development New nurses would receive better training and support	Medium (2)
Cost - cost to provincial government or healthcare provider	The cost is low, as it does not require new staff or technology, but merely adding new duties to existing staff	Low (3)
Administrative complexity - anticipated challenges faced when administering the policy	Administration would need to organize the program, but uptake beyond this would fall to the mentors and mentees	Medium (2)
Stakeholder acceptance - anticipated response from stakeholders	Stakeholders would be supportive as it requires little effort from the employer and creates stronger bonds between the employees	High (3)

7.3. Legislated Ratio

Of the five policies proposed, a legislated ratio was the only one to not score well on any of the criteria. The main problem with this policy is that it requires hiring more nurses. As with the 80/20 policy, hiring more nurses when there is already a shortage in the first place is expected to be very difficult. However, unlike the 80/20 policy, this one does not have other benefits that would outweigh the costs.

Presuming enough nurses are hired to fulfill the legislated ratios, turnover among nurses is expected to decrease. However, if funding for the new nurses is pulled from ancillary staff, this would lead to more staff turnover elsewhere in the hospital, ultimately solving one problem by causing another. Therefore, the policy is scored “medium” as its impact on turnover is limited. Furthermore, the number of new job vacancies is expected to be high, resulting in a score of “high,” as more nurses are needed to meet patient-nurse ratios. As this is a policy meant to tackle retention, not hiring, the current shortage is expected to pose a challenge as the profession is already short-staffed. Consequently, the most important criteria - efficiency - is rated poorly. In summary, this is due to the potential consequences of not hiring enough nurses, as well as possible funding challenges.

The protection and security criteria, our other primary objective, is scored roughly the same. Burnout is expected to decrease as more nurses means lighter workloads and more breaks, but only by a limited amount if funding is pulled from ancillary staff. If support staff are cut to make room in the budget for more nurses, this would lead to nurses having to take on more administrative and support work, thereby limiting just how much their workload, and consequently burnout, decreases. As a result, the policy is scored “medium” due to the mixed impact on burnout and absenteeism. This policy is also not expected to improve workplace wellness, as it does little to improve safety, security, and mental wellness in the workplace. Consequently, job satisfaction is not expected to increase, and so the policy scores “low” for this criterion. Similarly, development is scored “low” because the policy does not provide any new opportunities for nurses to further develop their skills or careers, or receive any new education.

The three administrative objectives - cost, administrative complexity, and stakeholder acceptance - are all rated poorly. Cost is expected to be “high,” as more funding is needed to cover the salaries of new nurses. Alternatively, if funding is not provided, other services will have to be cut back, which will cause further issues in the healthcare system. While administrative complexity is not rated poorly due to the need to develop new systems or infrastructure, it is because of the aforementioned consequence of cutting back on support and administrative staff due to funding reallocation. For the staff remaining, the workload would increase, particularly when scheduling and supporting the increased number of nurses. Therefore, it is rated “high” due to the high complexity of implementation. Neither healthcare providers, government, nor nurses’ interest groups are expected to be supportive of this policy due to all of the aforementioned reasons, and it is scored “low” accordingly. In the United States, where California has legislated nurse ratios, stakeholders (including nursing groups) have all expressed displeasure with the legislated ratios there and actively advocated against them in other jurisdictions (District of Columbia Hospital Association, 2016).

Table 5: Analysis of the Legislated Ratio Policy

Criteria and Measure	Results	Scoring
Efficiency - stability in the workplace	If there is enough funding to hire new nurses, there would be less turnover	Medium (2)

	If insufficient funding was provided, there would be turnover of ancillary staff	
Efficiency - vacancies or unfilled job postings	More nurses are needed to satisfy the ratios, leading to more vacancies	High (1)
Protection and Security - burnout due to an unsupportive environment	Nurses have fewer patients and can take more breaks, and therefore have less burnout Less administrative staff means nurses must take on other workloads	Medium (2)
Protection and Security - anticipated changes to workplace wellness	This policy does little to actually improve the workplace	Low (1)
Development - continuing education of nurses	This policy does not help with career development	Low (1)
Cost - cost to provincial government or healthcare provider	The cost is high, as more nurses are needed to fulfill ratios If there isn't enough funding, other services have to be cut back	High (1)
Administrative complexity - anticipated challenges faced when administering the policy	This would require hiring more nurses, making the workplace more complex Alternatively, it would cut back on administrative staff, increasing the workload for those remaining	High (1)
Stakeholder acceptance - anticipated response from stakeholders	Neither healthcare providers nor nurses are expected to be supportive	Low (1)

7.4. Support Program

As mentioned before in the description, the purpose of a support program would be wide-reaching: it would cover topics from safety to mental wellness, physical activity to socialization. The point would be to create a more supportive, inclusive workplace. To this end, this policy option is expected to increase stability and decrease turnover, resulting in a score of "high." By creating a workspace that employees are genuinely interested in participating in, as well as keeping many of their support structures in-house rather than forcing employees to seek them on their own, it would encourage nurses to stay and continue working. New vacancies are also expected to be minimal,

resulting in a score of “low.” The policy does not require hiring new nurses, and at most would only involve hiring a coordinator or an administrator to run the program. As such, it is scored highly for both measures of efficiency.

Protection and security are also rated well for this policy. While it does not directly impact workloads, as it does not address patient care or change nursing duties, it is expected to have some impact on burnout as it would provide nurses with more tools and support systems with which to handle their workloads. Therefore, it is rated “medium” due to the limited anticipated impact on absenteeism. Furthermore, workplace wellness would be directly targeted, supported, and encouraged by this policy. By supporting mental health and physical health, the policy is expected to increase job satisfaction; this results in a rating of “high.”

The policy is given a “medium” score for the development objective, as education is only expected to increase a minimal amount. As the intention is to provide nurses with a variety of classes, workshops, and supports, only some would be directly related to career development and/or education, while others would be focused on health. As such, the policy would have a limited impact, and would be highly dependent on the individual nurse and what they choose to take.

Following the societal objectives, the governmental objectives are rated much lower. Cost is expected to be “high,” as the policy involves the employer hosting and providing employees with new services. Bringing in instructors and opening up spaces to lead any classes, or to provide support, brings the cost up. Furthermore, the administrative complexity of the policy is also rated as “high” because of the amount of work required to organize and administer classes, workshops, and support structures. A new framework would need to be developed to efficiently provide workplace wellness activities directly from the employer to the employee. Lastly, stakeholder acceptance is expected to be mixed. Nurses and their supporters are expected to be supportive, as the policy directly provides benefits to them with very few downsides, but employers are expected to be more resistant due to the aforementioned high cost and complexity of developing such a program. Therefore, it is scored as “medium” for this criterion.

Table 6: Analysis of the Support Program Policy

Criteria and Measure	Results	Scoring
Efficiency - stability in the workplace	Nurses would have more supports within the workplace, leading to less turnover	Low (3)
Efficiency - vacancies or unfilled job postings	No, or very few, new job postings would be created by this policy	Low (3)
Protection and Security - burnout due to an unsupportive environment	Workloads would remain high Nurses would have more support to handle their workloads	Medium (2)
Protection and Security - anticipated changes to workplace wellness	Workplace wellness would be directly supported and encouraged	High (3)
Development - continuing education of nurses	Only some workshops would help with career development Others would not be career-related	Medium (2)
Cost - cost to provincial government or healthcare provider	Government or employers would have to pay for new services to be provided	High (1)
Administrative complexity - anticipated challenges faced when administering the policy	The employer would take on administration of workplace wellness activities directly	High (1)
Stakeholder acceptance - anticipated response from stakeholders	Acceptance from nurses' interest groups, as it directly related to wellness Hesitancy from employers as they would have to provide and pay for new services	Medium (2)

7.5. Staffing Tool

Inspired by the case studies, development of a staffing tool is one of the policy options. The purpose of the tool is to better organize nurse schedules and shifts, so that there are more nurses assigned to areas that need more work, and fewer nurses assigned to areas that need less work. By doing this, their workloads are expected to decrease. Furthermore, since it is run by an automated staffing tool, likely on a computer, it is also intended to ease the workload of administrative staff. However, as

found in the case studies, many employees distrust an automated staffing tool. In some cases, this was due to a fear that the tool was intended to replace employees, whether nurses or administration, while in other cases it was due to lack of understanding on how to use the tool or the technology (Canadian Journal of Nursing Leadership, 2012). Altogether, the policy's impact on stability (staff turnover) is expected to be "medium." This is because lower workloads and more organized schedules would lead to less turnover, but if the tool wasn't embraced, nurses and support staff would be more inclined to leave and seek work elsewhere. Therefore, it has the potential to be limited in impact. However, the tool is rated "low" for the other measurement of efficiency, vacancies, which is the ideal rating. The tool would not require any new staff to operate it (other than initial development), and instead could be integrated into the existing workplace.

The results of the policy's impact on the criteria of protection and security are mixed. It is expected to greatly reduce burnout due to its effect on nurses' workloads. The tool would reallocate and adjust workloads to be more reasonable than at present, and so the policy is rated "low" for this, as less absenteeism is anticipated. However, it is rated "low" for anticipated changes to workplace wellness as it does nothing to impact protection, safety, or health, and as a result, no increase in job satisfaction is expected. Similarly, the tool would not impact the career development or education of nurses, as it is not targeted at that aspect of the job, and it is consequently rated "low" for this criterion as well.

The cost of the tool depends on which stage the employer takes this policy on. The first group to attempt this policy, whether it is government or a healthcare provider, will have to pay high costs upfront to create the tool. Research and development of a new technological tool is expensive and time-consuming, and high funding would need to be sought to cover these costs. Furthermore, nurses and support staff would have to be trained on how to use the tool, which also takes more funding. However, once the tool is developed, the costs would decrease dramatically. Other than general software upkeep and continuing training costs, few other expenses are anticipated to keep the tool running. It could also be exported out to other workplaces, which may be able to avoid the initial high upfront costs by adjusting it for their own needs. Because the tool is expected to be expensive in the short term but inexpensive in the long term, this option is rated as "medium."

Administrative complexity, on the other hand, is expected to be "high." The policy involves the development of a complex technological tool or building entirely new infrastructure. Additionally, as mentioned, training would be needed for all staff who may use the tool. Organizing and providing this training would prove another barrier to easy implementation.

Finally, acceptance by stakeholders will likely be mixed. As discussed above, some nurses may embrace the tool, while others may harbour fears of being replaced or unable to use it. Healthcare providers and the government may also have mixed reactions, depending on their risk tolerance and how they feel about the high up-front cost. Therefore, it is rated "medium."

Table 7: Analysis of the Staffing Tool Policy

Criteria and Measure	Results	Scoring
Efficiency - stability in the workplace	Less turnover as workloads decrease Turnover still present if nurses do not fully embrace the tool	Medium (2)
Efficiency - vacancies or unfilled job postings	This policy would not impact vacancies	Low (3)
Protection and Security - burnout due to an unsupportive environment	The tool would reduce burnout by reallocating and adjusting workloads to be more reasonable	Low (3)
Protection and Security - anticipated changes to workplace wellness	No impact to protection or safety in the workplace	Low (1)
Development - continuing education of nurses	No impact on career development or education	Low (1)
Cost - cost to provincial government or healthcare provider	High cost to government or employer as the tool is developed No cost once the tool has been developed, and can be exported to other workplaces	Medium (2)
Administrative complexity - anticipated challenges faced when administering the policy	Development of a complex technological tool Training required for nurses to learn how to use it	High (1)

Stakeholder acceptance - anticipated response from stakeholders	Low acceptance from nurses due to fears of being replaced Acceptance from employers dependent on up-front cost	Medium (2)

Chapter 8. Recommendations

To address nursing retention, a mix of policies, or a policy package, is recommended. The nursing shortage is literally a matter of life and death, and so it must be addressed from as many angles as possible. It should be kept in mind, however, that this analysis focuses on nursing *retention*, not the recruitment of new nurses to the profession. While issues of that sort must be addressed as well if the nursing shortage is to be fixed, they are beyond the scope of this study.

A combination of three policy options is recommended: the 80/20 program, the mentorship program, and the support program. Through the lens of the selected criteria and measures, these three policies scored the highest, with the mentorship program as the best option. However, all three are being picked because they change or improve different aspects of the workplace. Furthermore, the nursing shortage is a complex issue; many strategies are needed to effectively address different issues.

The 80/20 policy focuses on career development as a retention incentive. This is an excellent strategy for keeping nurses long-term, and as seen in the case studies, has been proven as a very successful program. Not only has it increased retention, but also job satisfaction. The biggest barrier to this program, as evident from both the analysis and real-world examples, is the high cost. If funding is made available, this could be one of the most effective strategies at retaining nurses. Furthermore, it would help attract new nurses as well - a program of this sort would encourage nurses to apply to a workplace that provides it, thereby easing the shortage in that workplace or unit.

The mentorship program is an ideal complement to the 80/20 program, and is beneficial for two reasons: its focus on community building between both inexperienced and experienced nurses, and its high governmental objective score. It should be noted that this policy is the most nurse-led - it involves nurses themselves directly in its success, which increases their leadership skills and overall job satisfaction as they feel heard and valued by the employer. Furthermore, the benefits of community-building and the space the policy provides to foster relationships between new nurses and tenured nurses should not be overlooked. Of all five policies proposed, the mentorship program had the best score for its governmental objectives: it is low cost, fairly easy to administer, and expected to be well-received by stakeholders. This makes it one of the

most straightforward and attractive policies to implement and does not present any huge hurdles for the government, the employers, or the employees to jump through in order to take full advantage of the benefits.

Finally, the support program focuses on improving job satisfaction by targeting wellness in the workplace. While this one is the most difficult of the three to implement due to the administrative challenges, it proves to nurses that they are valued members of the workforce and that their employer is ready to support them in any way. Like the 80/20 program, it is also a very attractive incentive for new nurses looking for a new workplace or unit. Furthermore, it addresses many of the causes of the nursing shortage: mental health, safety, and burnout. As long as the cost and administrative barriers can be overcome, this policy would have a far-reaching impact on nurses and their health and safety.

These three policies are recommended in conjunction as they are complimentary and do not interfere with one another. The nursing shortage is a complex issue, and cannot be fixed if it is only addressed from one angle or with a one-size-fits-all policy. Together, the three proposed policies provide different reasons for nurses to stay: education, community building, and wellness. These different targeted outcomes mean the policies can reach a wider range of nurses. For example, a nurse who isn't interested in the mentorship program will be missed by that policy, but may have a great interest in continuing education, and so the chance of being retained is much higher than if there had only been one (mentorship) policy in the first place. Furthermore, the three policies are all rated differently and have different, but complimentary, strengths and weaknesses. The 80/20 program is expected to decrease burnout and help with professional development, while the others are less effective at these specific objectives. The mentorship program is the only one of the three policies to score excellently among the governmental objectives. Lastly, the support program is rated highly for workplace wellness and job satisfaction, while the others are rated comparatively lower. Altogether, one policy or another will successfully reach the chosen objectives, and as such they should be implemented as a package.

A drawback of implementing these policies as a bundle is that it would be a costlier strategy than implementing only one or two of them. Together, the cost becomes higher, posing a challenge. However, the benefits mentioned above outweigh those

higher costs, particularly because one-third of the bundle (the mentorship program) is not costly to begin with. The administrative complexity of the bundle would also be more complicated than if only one or two policies were chosen, but the bundle would still be simpler than the other two policy options that weren't selected (the legislated ratio and the staffing tool), as the bundle could be sustained long-term with little effort and has smaller upfront development costs.

Another strength of the bundle is that implementation of the three policies can be staggered. The mentorship program can be implemented first, as it does not require any new processes. Other than needing to work out the initial, specific details of the program, it can get up and running in the short term while the other two policies are being developed and funding is being secured. Furthermore, mentorship programs already exist in other jurisdictions, and best practices can be taken from elsewhere so that it becomes even quicker to enact. In the medium-term, the 80/20 program would likely be the next policy in the bundle to be implemented. The most difficult hurdle for this policy would be securing funding, but once that is settled, it sends nurses to educational programs that are pre-existing. The 80/20 program has also already been tried and tested in other jurisdictions across Canada, and the results and findings can be used so that it does not need to be developed from the ground-up. Finally, the wellness program would take the longest to implement, as it faces both funding and new process challenges. An entirely new program would need to be developed, which would take time to work out, administer, and then refine. This policy also does not have many examples from other jurisdictions to borrow from, making it more arduous than the others. However, this is yet another reason why these three policies have been recommended as a bundle: while the wellness program takes a while to get set up, there will already be two other retention policies up and running, ensuring that fewer nurses leave the profession in the short- and medium-term.

All three of these policies would also serve as excellent long-term, permanent fixtures in BC's healthcare system. The cost of upkeep would be minimal, other than annual funding, as nothing new would need to be developed or re-developed to keep the programs working. Furthermore, the nursing shortage will likely be endemic. Fixing it once does not mean it will never happen again. By keeping these policies in place, the BC government can avoid having the healthcare system reach crisis levels in the future by keeping its existing nurses from ever leaving in the first place.

Neither the legislated ratio nor the staffing tool are recommended. The legislated ratio has the lowest score of the five proposed policies due to its unintended consequences on the healthcare provider and the healthcare system as a whole. As is evidenced from the results of the legislated nurse-patient ratio in California, it causes issues for non-nursing staff that then circle back around to impact nurses. The staffing tool is scored better, but the significant upfront cost and complexity, as well as its doubtful impact on nursing retention, make it a less attractive policy option. While it has been attempted before, the results only served to show that more backend work is needed to make this a more viable choice.

Chapter 9. Conclusion

Nurses are an essential part of not only Canada's healthcare system, but Canadian society as a whole. Everyone encounters the healthcare system at some point in their life, and nurses are an invaluable and lifesaving service that are all too often overlooked and underappreciated. Now, with the nursing shortage in full force, it is impacting not only the services that nurses provide, but the health and passion of nurses themselves. It is long past time to pay our due and show nurses the same level of care and consideration that they show for their patients.

British Columbia is not alone in its struggle to both find and retain nurses. The shortage is happening worldwide, due to chronic underfunding of healthcare systems and a general lack of respect for the profession. However, just because everyone is struggling does not mean it should be accepted as the new status quo, and BC has an opportunity to become a leader in the space by acting swiftly to implement new and effective policies. Fast and efficient action is required from governments and service providers to address the shortage in every way they can, including nursing recruitment *and* retention. Attracting new nurses to our system only does so much to stop the shortage if the current nurses are leaving.

The aim of this study was to investigate policies to address nursing retention in British Columbia. It examined lessons learned from other jurisdictions both within Canada and internationally, and reviewed policy options that could be feasibly implemented within the province. This study recommends a three-pronged strategy to tackle nursing retention: the adoption of an 80/20 model, the introduction of a mentorship program, and the implementation of support programs and wellness initiatives throughout healthcare workplaces. These strategies are critical to address the nursing shortage and ensure that retention remains at the forefront of the discussion around problems and solutions.

Throughout this research, some of the biggest barriers revealed were the recruitment of new nurses, cost, and complexity. Many of the policies require the hiring of new nurses to fill newly-created gaps in the workforce, which will prove to be a significant challenge, as there is *already* a shortage of nurses. However, this further underscores the need to take multiple approaches and come up with multiple policy

solutions to a problem of such a huge scale - the nursing shortage cannot be fixed if only attacked from one angle or with a one-size-fits-all policy. Instead, a coordinated effort is needed at every level of the healthcare system and must target nurses of all stages and needs in their careers. Costs and complexity also revealed themselves as notable barriers, especially in the face of chronic underfunding for healthcare. The government is in a unique position to step in and devote more funding to such a critical service and ensure the whole system stays afloat. Notably, in February 2023, the federal government announced a $46.2 billion funding package for the provinces over the next decade to put towards healthcare (Major, 2023). Nonetheless, this problem will not go away on its own; it needs to be addressed, and it needs to be now.

While this study brings attention to specific challenges and solutions to nursing retention in BC, much more research and advocacy is needed to continue to champion the cause. Thankfully, it is one that is being increasingly reported on as the situation gets more dire and as nurses and their unions speak out more frequently about the situation on the inside. Nurses are a critical part of Canadian society, and this study has demonstrated and emphasized the need for healthcare providers and the government to show them the respect they deserve.

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