



Summary Report

The Employment, Retention and Exit
of Publicly Employed Nurses in New
Brunswick: An Analysis Using Linked
Administrative Data

June 2024



MSSU · USSM

Project Title

The employment, retention and exit of publicly employed nurses in New Brunswick: An analysis using linked administrative data

Principal Investigators

Ted McDonald, Director, NB-IRDT

Research Team

Pablo Miah, Senior Data Analyst, NB-IRDT

Ali Beykzadeh, Data Analyst, NB-IRDT

Acknowledgements

This priority project was undertaken at the request of the Government of New Brunswick (GNB), Department of Health and was supported by the Maritime SPOR SUPPORT Unit (MSSU), which receives financial support from the Canadian Institutes of Health Research (CIHR), the New Brunswick Department of Health, the Nova Scotia Department of Health and Wellness, the Prince Edward Island Department of Health and Wellness, ResearchNB and Research NS.

The opinions, results and conclusions reported in this paper are those of the authors and are independent from the funding sources. No endorsement by GNB, the MSSU or their partners is intended or should be inferred.

How to Cite This Product

Beykzadeh, A., McDonald, T., & Miah, P. (2024). Summary report: The employment, retention and exit of publicly employed nurses in New Brunswick: An analysis using linked administrative data. Fredericton, NB: New Brunswick Institute for Research, Data and Training.

[Read the Full Report](#)



Why is This Study Important?

The province of New Brunswick is experiencing a nursing shortage, and it isn't alone. Across Canada, provinces are competing to recruit nurses to come work in their public health systems, and this can make it challenging to both recruit and retain public health nurses in NB.

Our province's need for more nurses is only expected to grow over time. According to the NB Nurses Union, 41% of Registered Nurses (RNs) in NB will be eligible for retirement by the year 2025,¹ and the NB Department of Health projects the province's healthcare system will face a shortage of 1,300 RNs by 2028.²

It is estimated that NB will need 520 new nurses per year to maintain its nursing workforce,¹ which is more than the number of nursing graduates NB currently produces on a yearly basis. Moreover, not all nurses who graduate in NB will stay and work in NB. It is therefore crucial for the province of NB to focus on strategies to not only recruit more nursing graduates and nurses from outside the province, but also encourage nurses already employed in the NB's hospital system to continue working in the public health sector.

To do this, the province needs data -- specifically, information on nurses' decisions to transition to the public health sector, continue working in public health, exit from the public health sector, and/or leave the province altogether.

This research study plays an important role in NB's public health strategy by providing decision makers with information on nursing graduates' employment and mobility decisions, nursing attrition and retention and some factors that may be influencing nurses' decisions to stay or leave the public health sector.



How Was This Study Completed?

Researchers at NB-IRDT used linked Nursing Payroll Data, Citizen Data and NB University Graduates and NBCC and CCNB Student Data. Linked post-secondary and payroll data were used to examine rates of transition to employment in NB's public health sector among Bachelor of Nursing graduates from the University of NB and Université de Moncton and Practical Nursing graduates from NB Community College and Collège communautaire du Nouveau-Brunswick (2016-2020 cohorts).

This study also examined attrition, nursing duration and occupational and provincial retention among Registered Nurses (RNs) and Licensed Practical Nurses (LPNs) who worked in NB's public hospital system at some point between 2016-2022. It explored results according to Regional Health Authority, age, previous residence and years of experience, and used statistical analyses to identify factors associated with nursing graduates becoming a nurse in NB, as well as factors associated with nursing duration in NB.



Limitations

It is important to remember there are limitations to this study. For instance, the data only include records for the public hospital system and select public post-secondary institutions. We are unable to observe the employment decisions of graduates from private institutions, nurses working in other healthcare domains and the occupations of graduates who do not pursue nursing careers. As the data only show nurses' most recent positions, we cannot observe the transitions of LPNs to RNs.

While this work observes characteristics that may influence nurses' employment decisions, it does not encompass broader factors related to job satisfaction, like benefits, compensation structures, workplace dynamics and opportunities for growth.

Key Findings: Nursing Counts

The number of active nurses working in NB's public hospital system increased steadily between 2016 and 2022:

Registered Nurses (RNs)

➡ grew by **14%**, reaching 7,345 RNs in 2022.

Licensed Practical Nurses (LPNs)

➡ grew by **39%**, reaching 2,980 LPNs in 2022.



The number of nurses per 100,000 people living in NB also increased, but not by as much:



RNs per 100k
+7%

LPNs per 100k
+30%

Where are NB's Public Health Nurses From?

The share of nurses originally from NB **declined** (from ~77% - 70%), while the share of nurses from outside the Maritime provinces **grew** (from ~18% - 24%).

↳ This may reflect successful efforts to recruit nurses from outside NB.

Do Local Nursing Graduates Stay and Work in NB?



9 out of 10 Bachelor of Nursing graduates and
7 out of 10 Practical Nursing Graduates who were originally from NB ended up working in NB's hospitals.

Key Findings: Nursing Attrition



In general, between 4% and 6% of RNs and LPNs left their employment in NB's public hospital system each year (either through retirement or resignation).

↳ In recent years, attrition rates have been **declining among older age groups**, especially among the relatively small number of nurses aged 65+.

At the same time, attrition rates have been **increasing among younger age groups**, especially those with less than 5 years of experience.

Key Findings: Nursing Retention

In the Public Hospital System (New Recruits)

Retention in the public hospital system was relatively high for newly hired RNs and LPNs, with around **93%** of new hires remaining after one year.

However, retention rates dropped to **75%** for RNs and **79%** for LPNs five years after being hired.

In the Province of New Brunswick (Former Nurses)

Among nurses who left their jobs in the public hospital system, **over 90%** of RNs and LPNs aged 60+ remained in NB five years later.

In comparison, **around 50%** of RNs and LPNs aged 18-29 remained in NB five years after leaving the public health sector.

Conclusions

Even though the number of nurses working in NB's public hospital system has been growing over time, there is still a need to focus on recruiting and retaining more nurses in the province's public health sector.

While the majority of Bachelor of Nursing graduates are transitioning to jobs in the province's hospitals, estimates suggest that NB is not producing enough graduates to meet the yearly need for new nurses.¹ Moreover, there is a growing risk of new hires and recent graduates leaving the public health sector shortly after joining.

The younger age groups (with fewer years of experience) are not only increasingly likely to leave the public health sector, but they are the most likely to leave the province altogether. The drop in provincial retention among the 18-29 age group suggests that around half of the youngest RNs and LPNs that leave the public health sector are not contributing to health care in NB through longer-term employment in other sectors such as nursing homes. Instead, these younger nurses are more likely to leave NB, either to pursue employment within the nursing field or in other professions.

With an aging workforce and an aging population in general, NB has many nurses nearing retirement, as well as residents who are likely to need more health services as they age. While some of this aging effect is being offset by the in-migration of working-age individuals and young families, this does not alleviate the growing demand for health services but rather contributes to it – emphasizing the importance of recruiting and retaining public health nurses to help our growing population thrive.

References

1. New Brunswick Nurses Union (2020). The forgotten generation: An urgent call for reform in New Brunswick's long-term care sector. New Brunswick Nurses Union.
2. Government of New Brunswick. (2019). New Brunswick nursing resource strategy. Government of New Brunswick.