



Regulated Nurses, 2017

Methodology Guide



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About CIHI's nursing data

Collecting and reporting health human resources (HHR) data assists decision-makers in the planning and distribution of health care providers. Since 2002, the Canadian Institute for Health Information (CIHI) has collected data on the supply, distribution and practice characteristics of the 3 groups of regulated nursing professionals in Canada: registered nurses (including nurse practitioners), licensed practical nurses and registered psychiatric nurses.

More information

The following companion products are available on [CIHI's website](#):

- *Regulated Nurses, 2017: Jurisdictional Highlights* (.pdf)
- *Regulated Nurses, 2017: Data Tables* (.xlsx)

Information and analyses on 30 other health care providers in Canada are also available.

Feedback and questions are welcome at hhr@cihi.ca.

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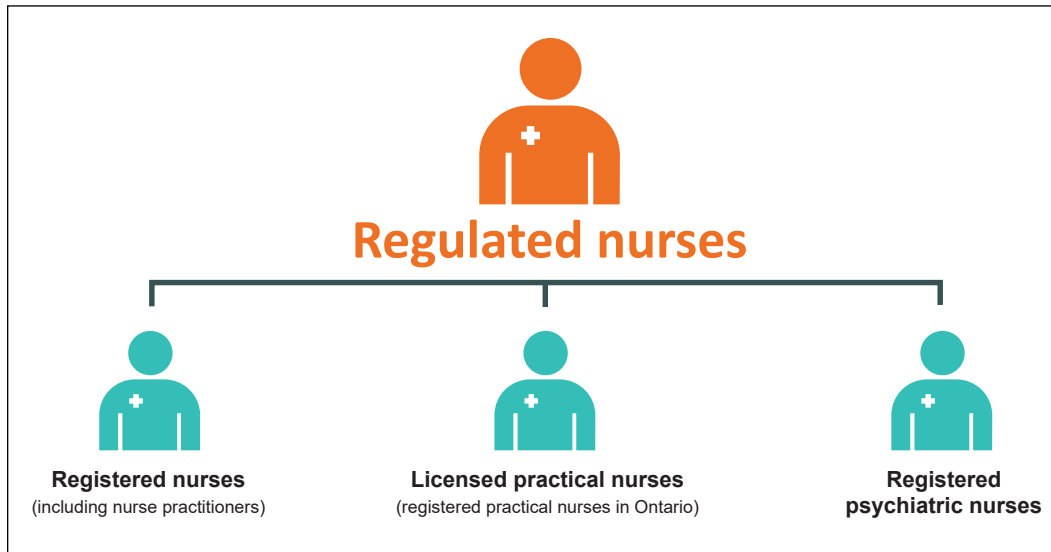
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About this document

This document summarizes the basic concepts, underlying methodologies, strengths and limitations of the data. It provides a better understanding of the nursing data presented in our analytical products and the ways in which it can be effectively used. This information is particularly important when making comparisons with other data sources and when looking at trends over time.

Regulated professions

There are 3 regulated nursing professions in Canada. Each province and territory has its own legislation governing nursing practice, as well as its own body that regulates and licenses its members.



Registered nurses (RNs, including NPs) are self-regulated health care providers who work both autonomously and in collaboration with others to enable individuals, families, groups, communities and populations to achieve their optimal levels of health. At all stages of life, in situations of health, illness, injury and disability, RNs deliver direct health care services, coordinate care and support clients in managing their own health. RNs contribute to the health care system through their leadership across a wide range of settings in practice, education, administration, research and policy. RNs are currently regulated in all 13 provinces and territories.

Nurse practitioners (NPs) are RNs with additional educational preparation and experience who possess and demonstrate the competencies to autonomously diagnose, order and interpret diagnostic tests, prescribe pharmaceuticals and perform specific procedures within their legislated scope of practice. NPs are currently regulated in all 13 provinces and territories.

Licensed practical nurses (LPNs) work independently or in collaboration with other members of a health care team. LPNs assess clients and work in health promotion and illness prevention. They assess, plan, implement and evaluate care for clients. In the province of Ontario, licensed practical nurses are referred to as registered practical nurses. LPNs are currently regulated in all 13 provinces and territories.

Registered psychiatric nurses (RPNs) work both autonomously and in collaboration with clients and other health care team members to coordinate health care and provide client-centred services to individuals, families, groups and communities. RPNs focus on mental and developmental health, mental illness and addictions, while integrating physical health and utilizing bio-psycho-social and spiritual models for a holistic approach to care. RPNs are currently regulated in the 4 Western provinces (Manitoba, Saskatchewan, Alberta, British Columbia) and Yukon.

Terminology

Throughout this guide,

- The term *regulated nurses* is used to describe the 3 groups of regulated nursing professionals as a whole: RNs (including NPs), LPNs and RPNs.
- The term *nursing* refers collectively to Canada's 3 regulated nursing professions, unless otherwise specified.
- The term *supply* refers to all regulated nurses who are eligible to practise in the given year (including those employed and those not employed at the time of registration). Note that secondary registrants or interprovincial duplicates are excluded from the supply.
- The term *workforce* refers to only those regulated nurses who were employed at the time of annual registration.
- The term *inflow* refers to the number of registrants entering the nursing profession. Inflow occurs when a regulated nurse registers to practise in a jurisdiction in which she or he did not register the previous year. Inflow is calculated by dividing the number of new registrants — regulated nurses who were not registered to practise nursing in the same province or territory the year before — by the total number of registrants in the same year. Inflow can include new graduates, regulated nurses who migrate from other Canadian jurisdictions or foreign countries and those who return to the workforce after extended leave (such as for family responsibilities or further education).
- The term *outflow* refers to the number of registrants leaving the profession. Outflow occurs when a regulated nurse fails to renew her or his registration in a jurisdiction the following year. Outflow is calculated by dividing the number of registrants who did not renew their licence to practise nursing in the same province or territory by the total number of registrants in the same year. Outflow can include nurses who have retired, nurses choosing an employment opportunity in another jurisdiction or country, nurses leaving the profession, nurses returning to school for additional education or nurses taking family leave and fulfilling family responsibilities.
- The term *renewal* refers to the number of registrants who renewed their registration in a jurisdiction where they were registered the year before.

Unless otherwise noted and/or referenced, data and information are from the nursing component of CIHI's Health Workforce Database. At present, the data excludes RPNs in Yukon and LPNs in Nunavut.

Data sources and collection

Data quality

CIHI is founded upon the principles of data quality, privacy and confidentiality. Data collection, processing, analysis and dissemination are guided by CIHI's commitment to publishing high-quality data in a privacy-sensitive manner. Data quality methodologies are used to maximize the accuracy, comparability, timeliness, usability and relevance of the nursing data in the Health Workforce Database.

Privacy and confidentiality

To safeguard the privacy and confidentiality of data received by CIHI, guidelines have been developed to govern the publication and release of health information in accordance with provincial privacy legislation.

Data collection

To practise as a regulated nurse in Canada, annual registration with the appropriate provincial or territorial regulatory authority is mandatory, requiring the completion of a registration form. The completed registration form is the property of the provincial/territorial regulatory authority. Through an agreement with CIHI, each regulatory authority submits a set of standardized data to CIHI, collected using the registration forms. These questions pertain to demographic, education/training and employment characteristics.

CIHI and the regulatory authorities jointly review and scrutinize the submitted data. Once the regulatory authority and CIHI approve the final data, it is added to CIHI's Health Workforce Database for analysis and reporting.

Statistics reported by CIHI may differ from those reported by others, even though the source of the data (i.e., annual registration forms) is the same. Differences may be attributed to differences in the population of reference, in the collection period and/or in CIHI's data exclusion criteria and editing and processing methodologies.

Population of reference and collection period

CIHI takes steps to adjust the population of reference of the nursing data to represent more closely the population of interest. To better ensure timeliness, CIHI collects data prior to the end of the 12-month registration period in each jurisdiction. Therefore, the population of reference for the nursing data is all regulated nurses who submit an active practising registration in a Canadian province or territory in the first 6 months of the registration year. The 12-month registration period varies among the provinces and territories, as each jurisdiction is responsible for setting the start and end dates of its own registration period.

This manner of collection enables CIHI to produce more timely data. Analyses completed annually by CIHI indicate that less than 5% of regulated nurses register after the 6-month mark, thus ensuring that CIHI's trends are consistent with provincial/territorial trends that include those registering after the 6-month mark.

The following definitions apply to the population of reference.

Non-practising registrations

The target population includes regulated nurses who submit an active practising registration; those who submit a non-practising registration are excluded.

First-time registrants

First-time registrants include new graduates as well as regulated nurses who are registering in a jurisdiction for the first time. Information on first-time registrants has varied across jurisdictions and over time, which has resulted in cases of under-coverage.

Nurses on leave

The target population includes regulated nurses renewing an active licence to practise at the time of registration. This creates some confusion for regulated nurses on leave (such as maternity/paternity leave, education leave or short-term illness or injury), as they may or may not be returning to work during the registration period and may submit an active practising registration (where the option exists) but may not actually be practising at the time of registration.

Regulated nurses on temporary leave may submit active practising registrations with full employment information with the intent of returning to that position when the temporary leave ends. While this is not a source of over-coverage, the fact is that some regulated nurses are not practising for the full year of registration.

Non-response

Statistics on item non-response, or *not stated* values for each reporting data element, are available in *Regulated Nurses, 2017: Data Tables*.

Duplicate records

It is necessary to identify and remove duplicate records within the database. Duplicates may arise when regulated nurses register in more than one jurisdiction. A comparison is done between the jurisdictions of registration and employment for each record; when they do not match, the record is excluded. When the jurisdiction of employment is not stated, a comparison is done between the jurisdiction of registration and the jurisdiction of residence for each record; when they do not match, the record is excluded. In cases where the jurisdiction of residence is not stated, the jurisdiction of employment defaults to the jurisdiction of registration and the record is not excluded.

It is common for regulated nurses to work in the territories on a temporary basis and to return to their home province for part of the year. In these cases, where the jurisdiction of employment is a territory, the duplicates are not excluded so that the nursing workforce in the North will not be underestimated.

Sometimes, double-counting cannot be avoided. For example, a regulated nurse who registers and works in more than one province/territory simultaneously would be double-counted in the nursing data, as the jurisdiction of employment would match the jurisdiction of registration in both cases.

For Nunavut and the Northwest Territories, the data for RNs is presented as a combined total throughout the summary report and data tables. The RNs in these territories are governed by the same regulatory authority, and because the specific territory in which the RNs usually worked was not available, combined data was submitted to CIHI. Therefore, any duplicates between the Northwest Territories and Nunavut cannot be resolved.

Recoding the data element Employment Status

Regulated nurses who do not indicate their employment status (i.e., full time, part time, casual) on their registration form risk being excluded from the workforce population. However, in cases where employment status is not stated but employment information is provided, CIHI, in consultation with the regulatory authority, will change the Employment Status element to *employed — status unknown* to ensure that the record is included in the workforce. This methodology has been applied to all nursing types.

Methodology

Graduate outmigration

Graduate outmigration¹ is defined as the proportion of new graduates from Canadian nursing entry-to-practice programs who do not apply for registration with a Canadian nursing regulatory body.

When considering graduate outmigration, it is important to keep in mind that not all Canadian nursing graduates will choose to obtain a Canadian licence to practise nursing. Canadian nursing graduates may choose to pursue further education, to leave Canada to practise nursing in another country or to leave the profession altogether. Factors influencing a nurse's decision on where to live and work are diverse and may include social, political, economic, environmental and/or familial issues.²

Average age

The average age of the regulated nurses for a given province/territory and/or Canada, either by nursing type or as a group, is calculated based on the age of the individual regulated nurses, which is derived from the data elements Birth Year and the current Data Year for each record. Records with missing age are excluded from the calculation.

$$\text{Average age} = \frac{1}{n} \sum_{i=1}^n \text{Age}_i$$

Where

i = Individual regulated nurse

n = Total number of regulated nurses in a jurisdiction or Canada

Urban, rural and remoteⁱ

A postal code analysis was performed to determine whether a nurse was practising in an urban, rural or remote setting. In most cases, the postal code used was that of the workplace; however, when the data element Postal Code (Primary Worksite) was not submitted to CIHI, Postal Code of Residence was used. If the postal code was unknown or invalid, it was defaulted to *not stated*.

Using Statistics Canada's Postal Code Conversion File (PCCF), postal codes were assigned to statistical area classifications (SACs) — urban, rural, remote and territories. Urban areas are defined (in part) by Statistics Canada as communities with populations greater than 10,000 people; rural/remote is equated with communities outside the urban boundaries and is referred to as rural and small town (RST) by Statistics Canada.

RST communities are further subdivided by identifying the degree to which they are influenced in terms of social and economic integration with larger urban centres. Metropolitan influenced zone (MIZ) categories disaggregate the RST population into 4 subgroups: strong MIZ, moderate MIZ, weak MIZ and no MIZ.

All categories may be interpreted in the following simple manner:

- Urban: Greater than 10,000 people (SAC type = 1, 2, 3)
- Rural: Strong/moderate MIZ and located relatively close to larger urban centres (SAC type = 4, 5)
- Remote: Weak/no MIZ and distant from large urban centres (SAC type = 6, 7, 8)

The urban, rural and remote analysis for the Northwest Territories and Nunavut was completed differently from the analysis for the provinces and Yukon. Urban areas were identified as postal codes within Yellowknife and Iqaluit, and rural/remote areas were identified as postal codes outside of Yellowknife and Iqaluit.

i. Details of the RST and MIZ classification schemes can be found in McNiven et al.,³ du Plessis et al.⁴ and CIHI.⁵

Health care providers working in direct care

The term *direct care* refers to only those registrants who provided services directly to clients. The methodology for defining health care providers employed in direct care can vary by profession.

For RNs (including NPs), direct care includes those whose Area of Practice is *medicine/surgery, psychiatry/mental health, pediatrics, maternity/newborn, geriatric/long-term care, critical care, community health, ambulatory care, home care, occupational health, operating room/recovery room, emergency care, several clinical areas, oncology, rehabilitation, public health, telehealth and other areas of direct service.*

For LPNs, direct care includes those whose Area of Practice is *medicine/surgery, psychiatry/mental health, pediatrics, maternity/newborn, geriatric/long-term care, critical care, community health, ambulatory care, home care, occupational health, operating room/recovery room, emergency care, several clinical areas, oncology, rehabilitation, palliative care, public health and other areas of direct service.*

For RPNs, direct care includes those whose Area of Practice is *medicine/surgery, pediatrics, geriatric/long-term care, crisis/emergency services, occupational health, oncology, rehabilitation, palliative care, children and adolescent services, developmental habilitation/disabilities, addiction services, acute services, forensic services and other areas of direct service.*

Health regions

Health regions are legislated administrative areas defined by provincial ministries of health. These administrative areas represent geographic areas of responsibility for hospital boards or regional health authorities. Health regions, being provincial administrative areas, are subject to change.

The health region data presented in this publication includes only regulated nurses who work in direct patient care and whose postal code was within the province or territory of analysis; those employed in administration, education or research are excluded from the health region totals.

The postal code data and Statistics Canada's PCCF were used to assign the regulated nursing workforce to health regions. The postal code used was Postal Code (Primary Worksite); when Postal Code (Primary Worksite) was not available, Postal Code of Residence was used instead. If the postal code was outside of the province/territory of analysis, health region was defaulted to *outside of jurisdiction.*

Health region peer groups

In order to facilitate comparisons among health regions, Statistics Canada developed a methodology that groups health regions with similar socio-economic and socio-demographic characteristics; these are referred to as peer groups. The [health region peer groups defined by Statistics Canada](#) are presented in Table 14 in *Regulated Nurses, 2017: Data Tables*. Tables 11, 12 and 13 contain data by health region.

International comparability

In an effort to improve the usability of Canada's nursing workforce statistics for international stakeholders, CIHI has developed a series of health workforce indicators grounded in the work of the World Health Organization's *National Health Workforce Accounts: A Handbook*.⁶ CIHI's release is focused on indicators identified in Module 1: Active health workforce stock.

Please see CIHI's [Indicator Library](#) for the detailed methodology for each health workforce indicator.

Methodological and historical changes

Methodological and historical changes to the data have the potential to make it difficult to compare data across time. CIHI, in collaboration with the regulatory authorities, is continually striving to improve data quality; therefore, the following information should be taken into consideration when making historical comparisons and consulting previous CIHI publications. In all cases, comparisons should be made with caution and in consideration of the methodological and historical changes made. A complete list of data elements can be found on the Health Workforce Database [Metadata page](#) on CIHI's website.

The section below provides information on the data elements that had data quality improvements or changes in data years 2008 to 2017 that may affect comparability. The descriptions are organized by nursing profession and by demographic, education and employment data elements.

RN data, 2008 to 2017

Supply and workforce

Jurisdiction	Data limitation
New Brunswick	The Supply and Workforce of RNs in New Brunswick decreased from 2015 to 2016. According to the Nurses Association of New Brunswick (NANB), the fluctuation is due to an increase in outflow and a decrease in initial registrations.
Quebec	<p>The RN workforce in Quebec declined between 2015 and 2016, impacting trending in other employment-related data elements. The overall decline in the Quebec RN/NP workforce can be attributed to a decline in employment among new graduates (those who graduated in 2015 or 2016) in addition to retirements of late-career nurses.</p> <p>The number of RNs in manager positions has been declining since 2007. While part of this shift can be attributed to retirement of late-career nurses, movement of RNs from manager to staff nurse and other positions was also a factor.</p> <p>Since 2007, the supply of NPs in Quebec has increased. According to the Ordre des infirmières et infirmiers du Québec (OIIQ), the growth among NPs in Quebec is primarily a result of the implementation of NP legislation in 2006. Since that time, the ministère de la Santé et des Services sociaux du Québec (MSSS) has introduced a workforce strategy with a goal of 2,000 NPs in Quebec by the year 2025. As a result, universities in Quebec, in collaboration with other partners, are increasing enrolment in NP programs.</p>
Ontario	A new registration regulation requirement, called the Declaration of Practice, was introduced by the College of Nurses of Ontario (CNO) for the 2014 registration year. With this new requirement, a member could renew in the General Class only if she or he had practised nursing in Ontario within the past 3 years, or had become registered or reinstated within the past 3 years. This change impacted the Ontario nursing supply in 2014 compared with the trends of previous years. Caution should be used when comparing data.
Alberta	The annual growth rates for RNs in Alberta fluctuated between 2013 and 2017. According to the College and Association of Registered Nurses of Alberta (CARNA), the fluctuation is the result of a system upgrade implemented in 2013.

Demographic

Jurisdiction	Data limitation
Newfoundland and Labrador	In 2016, the Association of Registered Nurses of Newfoundland and Labrador (ARNNL) implemented a new identifier in its annual submission to CIHI, limiting the ability to analyze the flow of nurses in and out of Newfoundland and Labrador. For 2016, ARNNL submitted aggregate counts for inflow/outflow/renewal and inflow/outflow/renewal by age group, resulting in over-coverage.
Manitoba	The College of Registered Nurses of Manitoba (CRNM) does not provide record-level values for the data elements Birth Year and Sex in order to conform to provincial privacy legislation. Each year, it submitted age groups at the record level in place of Birth Year as well as aggregate tables on Sex and Average Age .

Education

Jurisdiction	Data limitation
Quebec	Starting in 2016, a nursing degree from an educational institution in France is recognized as an equivalent to the Bachelor of Science in Nursing from Quebec universities. As a result of this change, the Initial Education of nurses who graduated in France has been recoded by the OIIQ as <i>baccalaureate</i> . Prior to 2016, it was coded as <i>diploma</i> .
Manitoba	In 2017, the CRNM defaulted Other Education in Nursing Discipline-Degree to <i>not stated</i> . This was due to the implementation of a new database. As a result, there was a decrease in <i>baccalaureate</i> and <i>master's</i> for the derived data element Highest Education . CIHI is working with CRNM to resolve this issue.
Northwest Territories and Nunavut	From 2012 to 2015, a change in reporting methodology by the Registered Nurses Association of the Northwest Territories and Nunavut (RNANT/NU) influenced <i>baccalaureate</i> and <i>diploma</i> responses for Initial Education in Registered Nursing .

Employment

Jurisdiction	Data limitation
Quebec	<p>Starting in 2015, the OIIQ registration form required RNs to specify their Place of Work. As a result, the number of RNs recording <i>other</i> as their Place of Work has declined alongside an increase in <i>hospital, community health and nursing home/long-term care</i>.</p> <p>Starting in 2013, the OIIQ submitted full Postal Code of Worksite. Postal Code of Residence was not submitted due to a privacy regulation in Quebec.</p>
Ontario	<p>Prior to 2011, members of the CNO provided detailed employment information (Employment Status, Place of Work, Position and Area of Responsibility) on only the single employer for whom they worked the most hours. As of 2011, members are required to provide this same detailed employment information about all of their current employers and to designate an employer to appear on the CNO's register. The CNO does not have a concept of primary employer; however, as CIHI requires a primary employer, the CNO provides CIHI with the employer the member designates as the register address as the primary employer. More information can be found on the CNO's website.</p>
Manitoba	<p>Over the past decade, the CRNM has made efforts to collect Postal Code of Worksite and/or Postal Code of Residence to support CIHI's health region and urban/rural/remote analysis.</p> <p>Postal Code of Primary Worksite, 2008, not collected; 2009 to 2011, full postal collected; 2012, not collected; 2013 to 2016, partial (3 digit) postal code; 2017, full postal code. Postal Code of Residence, 2008 to 2012, partial (3 digit) postal code; 2013 to 2017, full postal code.</p> <p>In 2009, a total of 6,573 RNs and NPs failed to indicate their primary Place of Work, which resulted in an increase in non-responses and a low volume of RNs/NPs in each workplace. While reporting since 2010 has improved, caution should be taken when comparing 2009 data with data from other years.</p> <p>According to the CRNM, reporting of Area of Responsibility was not mandatory on the CRNM registration renewal application. This led to fluctuations in this data element in 2017.</p>
Alberta	<p>From 2011 to 2013, reporting Place of Work, Area of Responsibility and Position was not mandatory on the CARNA registration renewal application. This change led to an increase in non-response for the data elements in these years.</p>
Yukon	<p>Starting in 2009, the Yukon Registered Nurses Association (YRNA) implemented a coding change to the element Postal Code of Worksite. This change affects the number of nurses who were employed in small Yukon communities outside of Whitehorse, as reporting was based on the employer's Whitehorse office postal code. Caution should be used when reviewing the urban/rural/remote analysis. CIHI is working with the YRNA to improve the accuracy of this data element.</p>

Jurisdiction	Data limitation
Northwest Territories and Nunavut	<p>The RN workforce in the Northwest Territories and Nunavut relies on a core of resident RNs with Employment Status of <i>full time</i>, plus a large number of short-term relief staff from across Canada each year. While some RNs return each year, some register in these territories only once. This results in greater variability in the data over time.</p> <p>Data for the Northwest Territories and Nunavut is provided by the RNANT/NU. It is not possible to accurately attribute the number of RNs to these 2 territories; as a result, data for the Northwest Territories and Nunavut is combined under a single set of statistics. CIHI is working with the RNANT/NU to improve reporting of nurses in both territories.</p>

LPN data, 2008 to 2017

General

Jurisdiction	Data limitation
Yukon	In 2017, the Department of Community Services in Yukon submitted aggregate LPN data. Data for 2008 to 2016 was submitted at the record level.
Nunavut	CIHI does not collect record-level LPN data from Nunavut. Aggregate counts are included where possible.

Supply and workforce

Jurisdiction	Data limitation
Newfoundland and Labrador	In 2012, the College of Licensed Practical Nurses of Newfoundland and Labrador (CLPNL) implemented new entry-to-practice requirements for licensure. Consequently, this caused a decrease in registrants in 2012.
Prince Edward Island	In 2012, the Prince Edward Island Licensed Practical Nurses Registration Board (PEILPNRB) implemented new entry-to-practice requirements for licensure. Consequently, this caused a decrease in registrants in 2013.
Quebec	In 2015, a new entry-to-practice exam was implemented for LPNs in Quebec. According to the Ordre des infirmières et infirmiers auxiliaires du Québec (OIIAQ), this may have contributed to a decline in new registrants since 2015.
Ontario	A new registration regulation requirement, called the Declaration of Practice, was introduced by the CNO for the 2014 registration year. With this new requirement, a member could renew in the General Class only if she or he had practised nursing, or had become registered or reinstated, in Ontario within the past 3 years. This change affected the Ontario practical nursing supply in 2014 and therefore affected comparisons with the trends of previous years. Caution should be used when comparing data.

Demographic

Jurisdiction	Data limitation
Quebec	In 2010, the OIIAQ implemented a change to its member identifiers in the data file submitted to CIHI. Inflow, outflow and renewal trending is not available due to this change.
	From 2008 to 2010, Location of Graduation was not collected. As a result, all Location of Graduation values were defaulted to <i>Quebec</i> .
Manitoba	In 2008, the College of Licensed Practical Nurses of Manitoba (CLPNM) did not provide record-level values for Birth Year and Sex due to provincial privacy legislation. It submitted age groups at the record level in place of Birth Year and aggregate tables for Sex and Average Age .
British Columbia	The College of Licensed Practical Nurses of British Columbia (CLPNBC) receives registration requests from students enrolled in Bachelor of Science in Nursing (BSN) programs. If the registrant fulfills the academic competencies, he or she is permitted to work as an LPN. As these registrants have not yet graduated from their BSN program, no data is provided for Year of Graduation .

Employment

Jurisdiction	Data limitation
Nova Scotia	Starting in 2016, the College of Licensed Practical Nurses of Nova Scotia (CLPNNS) defaults the Employment Status of all new registrants who indicated <i>not employed</i> to <i>not employed and seeking employment in practical nursing</i> .
Quebec	Prior to 2012, the OIIAQ did not collect data for the value <i>mental health centre</i> , because this type of institution, as defined by CIHI, did not exist in the province of Quebec. In 2005, Quebec's MSSS merged most of the province's public-sector hospitals, long-term care facilities and community health centres into 95 CSSSSs. Starting in 2013, the OIIAQ reclassified its definitions for Place of Work , which resulted in different distribution patterns among the sectors over the years.
Ontario	Prior to 2012, members of the CNO provided detailed employment information (Employment Status, Place of Work, Position and Area of Responsibility) on only the single employer for whom they worked the most hours. As of 2012, members are required to provide this detailed employment information for all current employers and to designate an employer to appear on the CNO's register. The CNO does not have a concept of primary employer; however, as CIHI requires this information, the CNO provides CIHI with the employer the member designates as the register address as the primary employer. More information can be found on the CNO's website .
Manitoba	Between 2011 and 2012, the CLPNM migrated to a new database. Following the migration, there was a decrease in the number of members in the category <i>employed — part time</i> and an increase in the number in <i>employed — casual</i> . While the issue has been resolved, the data for 2011 and 2012 is not an accurate reflection of Employment Status .

Jurisdiction	Data limitation
Alberta	According to the College of Licensed Practical Nurses of Alberta (CLPNA), the increase in responses for the value <i>community health centre</i> in 2010 is the result of a reorganization of the Alberta health system, which saw many rural hospitals change to community health centres.
British Columbia	As of 2011, the CLPNBC continued to emphasize accuracy and modified its renewal form to include Employment Status values <i>employed — part time</i> and <i>employed — casual</i> . Previously, the 2 categories were combined.
Northwest Territories	In 2008, the Northwest Territories Department of Health and Social Services coded Area of Responsibility as <i>several clinical areas</i> for practical nurses who identified more than one area of responsibility. Starting in 2009, primary area of responsibility was submitted.

RPN data, 2008 to 2017

General

Jurisdiction	Data limitation
Yukon	CIHI does not collect record-level RPN data from Yukon. Aggregate counts are included where possible.

Education

Jurisdiction	Data limitation
Saskatchewan	In 2017, the Registered Psychiatric Nurses Association of Saskatchewan (RPNAS) reported a higher proportion of registrants as <i>not stated</i> for Other Education in Psychiatric Nursing (Degree) . As a result, there was a decrease in the number of RPNs reporting <i>Advanced Diploma in Psychiatric Nursing</i> and <i>none</i> . According to the RPNAS, the increase is the result of a system mapping issue that they are working to resolve.

Employment

Jurisdiction	Data limitation
Saskatchewan	<p>Between 2015 and 2016, the RPNAS identified a fluctuation in the proportion of registrants reporting their Place of Work as <i>nursing home/long-term care facility</i> and <i>general hospital</i>. This is a result of a reclassification of several nursing homes/long-term care facilities to general hospitals by the province in 2016.</p> <p>In 2017, Employment Status data was not available from the RPNAS; as such, all RPNs employed in Saskatchewan were coded as <i>employed — status unknown</i>. CIHI is working with the RPNAS to review and improve the reporting.</p>

Appendix A

List of regulated nursing data providers

Newfoundland and Labrador

Association of Registered Nurses of Newfoundland and Labrador
College of Licensed Practical Nurses of Newfoundland and Labrador

Prince Edward Island

Association of Registered Nurses of Prince Edward Island
Prince Edward Island Licensed Practical Nurses Registration Board

Nova Scotia

College of Registered Nurses of Nova Scotia
College of Licensed Practical Nurses of Nova Scotia

New Brunswick

Nurses Association of New Brunswick
Association of New Brunswick Licensed Practical Nurses

Quebec

Ordre des infirmières et des infirmiers du Québec
Ordre des infirmières et infirmiers auxiliaires du Québec

Ontario

College of Nurses of Ontario

Manitoba

College of Registered Nurses of Manitoba
College of Licensed Practical Nurses of Manitoba
College of Registered Psychiatric Nurses of Manitoba

Saskatchewan

Saskatchewan Registered Nurses' Association
Saskatchewan Association of Licensed Practical Nurses
Registered Psychiatric Nurses Association of Saskatchewan

Alberta

College & Association of Registered Nurses of Alberta
College of Licensed Practical Nurses of Alberta
College of Registered Psychiatric Nurses of Alberta

British Columbia

College of Registered Nurses of British Columbia
College of Licensed Practical Nurses of British Columbia
College of Registered Psychiatric Nurses of British Columbia

Yukon

Yukon Registered Nurses Association
Department of Community Services, Government of Yukon

Northwest Territories

Registered Nurses Association of the Northwest Territories and Nunavut
Department of Health and Social Services, Government of the Northwest Territories

Nunavut

Registered Nurses Association of the Northwest Territories and Nunavut
Department of Health and Social Services, Government of Nunavut

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