# Nursing in Canada, 2022

## Methodology Notes

Canadian Institute for Health Information
Institut canadien d'information sur la santé

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# Table of contents

# About CIHI's nursing data

Health workforce data assists decision-makers in the planning and distribution of health care professionals. Since 2002, the Canadian Institute for Health Information (CIHI) has collected data on the supply, distribution and practice characteristics of the 4 groups of regulated nursing professionals in Canada: nurse practitioners, registered nurses, registered psychiatric nurses and licensed practical nurses.

The following nursing companion products are available on CIHI's website:

- *Nursing in Canada, 2022 — Data Tables* (XLSX)
- *Health Workforce in Canada, 2021 — Quick Stats* (XLSX)

Other health workforce products are also available on CIHI's website:

- *Occupational Therapists in Canada, 2021 — Data Tables* (XLSX)
- *Occupational Therapists in Canada, 2021 — Methodology Notes* (PDF)
- *Physiotherapists in Canada, 2021 — Data Tables* (XLSX)
- *Physiotherapists in Canada, 2021 — Methodology Notes* (PDF)
- *Pharmacists in Canada, 2021 — Data Tables* (XLSX)
- *Pharmacists in Canada, 2021 — Methodology Notes* (PDF)
- *Health Workforce in Canada, 2017 to 2021: Overview — Data Tables* (XLSX)
- *Health Workforce in Canada, 2017 to 2021: Overview — Methodology Notes* (PDF)
- A profile of physicians in Canada, 2021 (infographic)
- *Supply, Distribution and Migration of Physicians in Canada, 2021* (data tables, historical data, methodology notes, Quick Stats)
- *National Physician Database, 2020–2021* (payments and utilization data tables, historical payments and utilization data tables, methodology notes)

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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 health workforce information 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.

# Data availability

## Regulated nursing professionals

There are 4 groups of regulated nursing professionals 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.

Included below are definitions for each:

**Nurse practitioners** (NPs) are advanced practice nurses who integrate clinical skills associated with nursing and medicine in order to assess, diagnose and manage patients in primary health care settings and acute care populations, as well as ongoing care for populations with chronic illness.

**Registered nurses** (RNs) are health care professionals who work both autonomously and in collaboration with others to enable individuals, families, groups, com munities and populations to achieve their optimal levels of health. RNs deliver direct health care services to those at all stages of life and in all situations of health, illness, injury and disability; they also 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. RNs are currently regulated in all 13 provinces and territories.

**Registered psychiatric nurses** (RPNs) are health care professionals who 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 and British Columbia) and Yukon. **Note:** RPNs are educated and trained independently of the registered nursing class.

**Licensed practical nurses** (LPNs) are health care professionals who 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.

LPNs are currently regulated in all 13 provinces and territories. **Note:** In Ontario, these nurses are called registered practical nurses. For the purposes of CIHI reporting, and to maintain continuity between provinces and territories, they are referred to as LPNs.

# 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. The information collected pertains to demographic, education/training and employment characteristics.

CIHI and the regulatory authorities jointly review and scrutinize the submitted data. Once both parties approve the final data, it is ready 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. Variances may be attributed to differences in the population of reference, the collection period and/or CIHI's data exclusion criteria and editing and processing methodologies.

# Population of interest

The population of interest includes all regulated nurses who submit an active practising registration in a Canadian province or territory. The population of interest is further refined to include only regulated nurses who fit the definition formulated by CIHI, in consultation with regulated nursing stakeholders, to best serve national-level health workforce planning and research needs. As a result, there are some regulated nurses whose data is not collected by CIHI. These include regulated nurses who submit a non-practising registration (where available from the provincial/territorial regulatory authority) and regulated nurses living or working outside Canada who have not maintained a Canadian licence.

To better ensure timeliness, CIHI collects data prior to the end of the registration period, which varies among professions and provinces and territories. The population of reference includes 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 is responsible for setting the start and end dates of its own registration period. This time frame for 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; CIHI's trends are therefore consistent with provincial/territorial trends that include those registering after the 6-month mark.

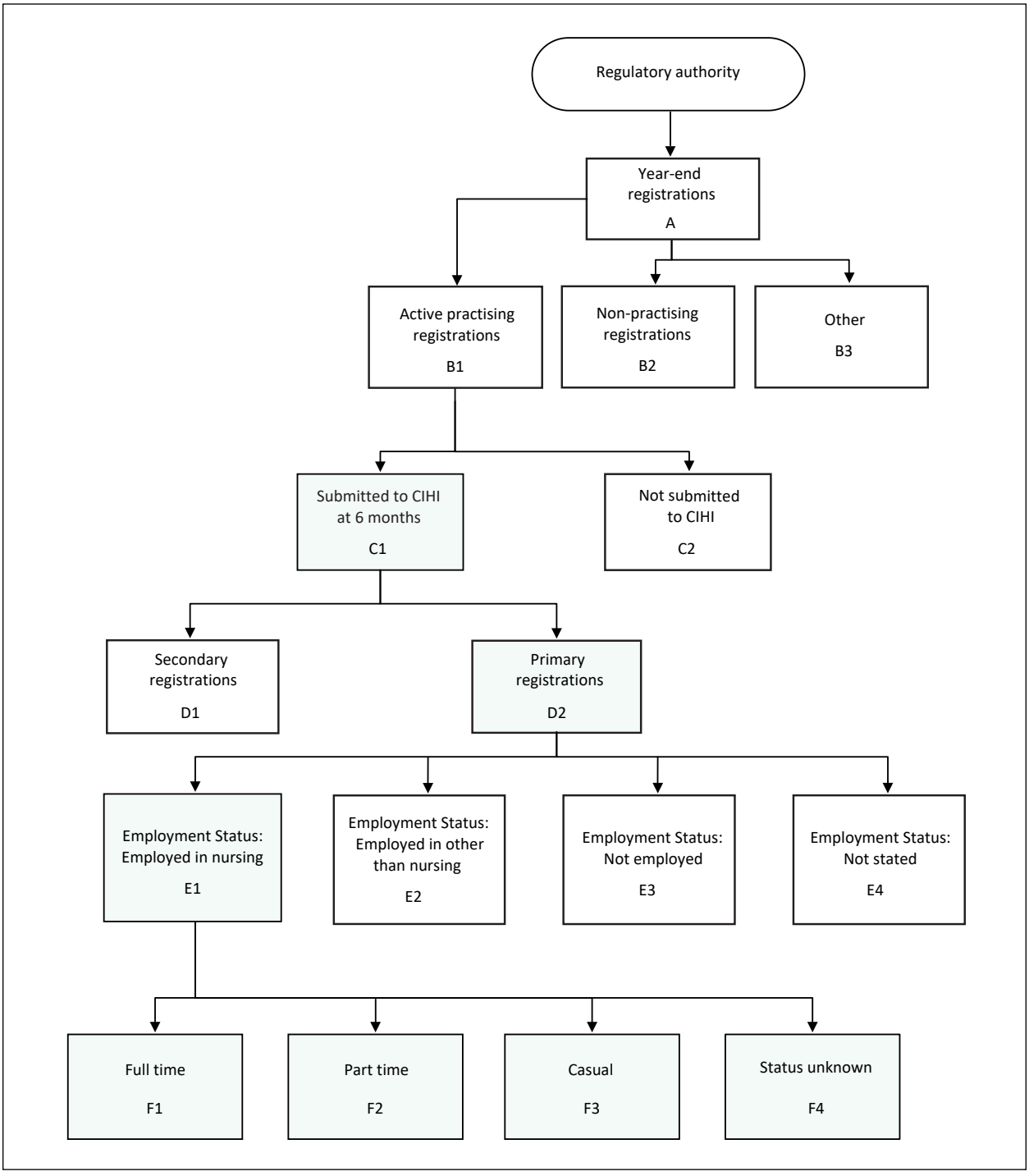
# Defining the workforce

It is important to note the difference between the terms "supply" and "workforce." *Supply* refers to all registrants who were eligible to practise in the given year (including those employed and those not employed at the time of registration). Note that inactive registrants and secondary registrants are excluded from the supply — with the exception of nurses working in the territories. *Workforce* refers to only those registrants who were employed in the profession at the time of annual registration, including those on leave who submit an active practising registration. The workforce excludes regulated nurses who are not working in nursing; this is achieved with the Employment Status data element.

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.

The figure below helps to illustrate how we define the nursing workforce.

**Figure** Tracking regulatory authority data to CIHI: The regulated nursing workforce




**Source**
Health Workforce Database, Canadian Institute for Health Information.

### A: All registrations

Box A is the number of registrations submitted to a regulatory authority for nursing.

### B: Types of registrations

Box B1 is the number of active practising registrations received by the regulatory authority.

Box B2 is the number of non-practising registrations received by the regulatory authority.

Box B3 is the number of other registrations received by the regulatory authority.

### C: Records submitted to CIHI

Box C1 is the number of active practising registrations submitted to CIHI at the 6-month mark of the registration year.

Box C2 is the number of registrations not submitted to CIHI during the first 6 months of the registration year.

### D: Primary and secondary registrations

Box D1 is the number of regulated nurses whose province/territory of registration differs from the province/territory of employment. These records are outside of the population of reference, except where one of the provinces/territories (either for registration or for employment) is a territory.

Box D2 is the number of regulated nurses whose province/territory of registration is the same as the province/territory of employment. These regulated nurses make up the nursing supply.

### E: Employment Status

Box E1 is the number of regulated nurses for whom Employment Status is *employed in nursing*. These regulated nurses make up the workforce.

Boxes E2 to E4 are the numbers of regulated nurses who are excluded from the workforce, as they are not reported as employed in nursing.

### F: Full-Time/Part-Time Status

Boxes F1 to F4 represent the number of regulated nurses included in the nursing workforce. A regulated nurse may have a Full-Time/Part-Time Status of full time, part time, casual or unknown.

# Data quality

## Under- and over-coverage

There are a few potential sources of under-coverage:

- **Registration period versus data collection period:** While setting cut-off dates enables CIHI to release more timely data, nurses who register between the cut-off date and the end of the registration period are not included in the Health Workforce Database (HWDB).
- **Not stated:** Not stated rates reflect a case of under-coverage. Statistics on *not stated* values for each reporting data element are available in *Nursing in Canada, 2022 — Data Tables.*
- **First-time registrants:** First-time registrants include new graduates as well as health care professionals who are registering in a province/territory for the first time. Information on first-time registrants has varied across provinces and territories and over time, which has resulted in cases of under-coverage.

There are a few potential sources of over-coverage:

- **Duplicate and out-of-scope records:** Over-coverage occurs when duplicate records appear in the database or when out-of-scope records (i.e., inactive registrants) are included.
- **Nurses on leave:** The target population excludes any nurse not practising at the time of registration. This creates some confusion for nurses on leave (e.g., parental leave, education leave, short-term illness or injury), as they may or may not be returning to work during the registration period. Therefore, they may submit an active practising registration (where the option exists) but may not actually be practising at the time of registration. The assumption is made that regulated nurses on temporary leave submit active practising registrations with full employment information (when possible) 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 nurses are not practising for the full year of registration.
- **Secondary registrations:** Nurses can choose to register simultaneously in multiple provinces and territories. To avoid double counting these nurses, CIHI identifies registrations that do not reflect the primary province/territory of practice and excludes them when reporting supply or workforce information. Such inter-jurisdictional duplicates are also known as secondary registrations. The supply and workforce of health care professionals is defined by excluding the secondary registrations from active registrations, with the exception of nurses in the territories.

- **Registered nurses in the territories:** It is common for registered 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 territories will not be underestimated. For the Northwest Territories and Nunavut, the data for NPs and RNs is presented as a combined total throughout the nursing products. NPs and RNs in these territories are governed by the same regulatory authority; because information about the specific territory in which the NPs and RNs usually worked is not available, combined data is submitted to CIHI. Therefore, any duplicates between the Northwest Territories and Nunavut cannot be resolved.
- **Return to practice:** Beginning in 2020, some professional regulatory bodies put out a call for non-practising health professionals to return to practice to respond to the increased patient care needs associated with COVID-19. Depending on the nursing group and jurisdiction, return-to-practice data may already be included in the supply totals.

# Terminology and general methodology

Throughout the nursing products,

- *Health Workforce Database* (HWDB) refers to the database that stores both record-level and aggregate-level data collected on more than 30 groups of health care professionals in Canada, including all regulated nurses.
- The term *nursing* refers collectively to Canada's 4 regulated nursing professions, unless otherwise specified.
- The term *primary employment* refers to employment with an employer or in a self-employed arrangement that is associated with the highest number of usual weekly hours of work. All workforce data and analyses represent primary employment statistics for the respective health care professionals.
- The term *regulated nurses* is used to describe the 4 groups of regulated nursing professionals as a whole: NPs, RNs, RPNs and LPNs.
- The term *renewal* refers to the number of registrants who renewed their registration in the same province/territory as the one they were registered in the year before.

# Average age

The average age of the regulated nurses in a given province/territory and/or Canada is calculated based on the age of the individual 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.

$$Average\ age = \frac{1}{n}\sum_{i=1}^{n} Age_i$$

Where

- $i$ = Individual health care professional
- $n$ = Total number of health care professionals in a province/territory or Canada

# Graduate registration

This information is available for RNs only. RNs seeking licensure to practise in Canada are required to register with a provincial or territorial regulatory body. By comparing the number of entry-to-practice RN graduates from Canadian nursing programs with the number obtaining a nursing licence over time, RN graduate registration patterns can be better understood.

When considering graduate registration, it is important to keep in mind that not all Canadian RN graduates will choose to obtain a Canadian licence to practise nursing. Canadian RN graduates may choose to pursue further education, leave Canada to practise nursing in another country or leave the profession altogether. Factors influencing an RN's decision on where to live and work are diverse and may include social, political, economic, environmental and/or familial issues.[1]

RN graduate data from entry-to-practice programs that was published by the Canadian Association of Schools of Nursing (CASN) is included in *Nursing in Canada, 2022 — Data Tables*. This data, for example, is used to populate the percentage of RN graduates who registered with a provincial or territorial regulatory body in a given registration year, broken down by graduation year. RN graduate data from entry-to-practice programs for 2022 was not available at the time of publication. The 2022 data includes those who graduated and registered in the same year, as reflected in registration data from the regulatory colleges. Therefore, a percentage cannot be calculated at this time because it requires the CASN number to be used as a denominator.

# Graduate retention and migration

The term *graduate retention and migration* is used to identify whether graduates from a specific province/territory (for all years of graduation) registered and remained in their province/territory of graduation or migrated to and registered in another province/territory in the current data year.

# Nurses employed in direct care

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

**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*.

**RNs:** 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*.

**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*.

**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*.

# Health regions and peer groups

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 the *Nursing in Canada, 2022* analyses and products includes nurses who work in direct patient care and whose postal code is 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 Postal Code$^{OM}$ Conversion File (PCCF) are used to assign health care professionals to health regions. The postal code of the workplace is used to conduct this analysis; however, when the data element postal code of workplace is not submitted to CIHI, postal code of residence is used.

Starting in 2021, the methodology for mapping health regions has been enhanced to align with CIHI's data standards; this update has been applied to the reporting period (i.e., 2013 to 2022).

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 based on the 2018 classification of peer groups and are presented in *Nursing in Canada, 2022 — Data Tables*.

# Inflow and outflow

Changes in the nursing supply reflect the number of registrants entering (inflows) and the number leaving (outflows) their profession. Analyzing inflows and outflows provides better information about how the nursing supply is changing over time.

The term *inflow* refers to the number of registrants entering the profession. Inflow occurs when a regulated nurse registers to practice in a province/territory in which they did not register the previous year. Inflow is calculated by dividing the number of new registrants — regulated nurses who were not registered to practice 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 in from other Canadian provinces/territories 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 a specific province/territory. Outflow occurs when a regulated nurse fails to renew their registration in a province/territory the following year. Outflow is calculated by dividing the number of registrants who did not renew their licence to practice nursing in the same province or territory by the total number of registrants in the same year. Outflow is influenced by a number of factors, including social, political, economic, environmental and familial issues, and these factors will change over time. For those regulated nurses who are late in their career, not renewing their registration may be a signal that they have retired. For regulated nurses who are in the early stages of their careers, reasons for not renewing registration could include choosing an employment opportunity in another province/territory or country, leaving the profession, taking parental leave and fulfilling family responsibilities, or returning to school for additional education.

It should be noted that inflow and outflow is not available at the national level because a national unique identifier is not currently in place to allow tracking a registrant across provinces and territories.

## Nurses employed in mental health

The term *employed in mental health* refers to those nurses working in direct care who identified a primary place of work as mental health hospital, or an area of responsibility of psychiatry/mental health, and to all employed RPNs. Regulated nurses working in other settings may also be supporting the delivery of psychiatry/mental health services and may not be captured.

## Population estimates and per 100,000 population counts

Using population estimates from Statistics Canada, rates per population can be calculated for NPs, RNs, LPNs and RPNs. *Nursing in Canada, 2022 — Data Tables* includes Statistics Canada's population estimates by province and territory for 2013 to 2021. These estimates are based on the data released as of July 2022.[2]

## Retention and entry

The nursing supply data in the Health Workforce Database allows for analysis of the retention and entry of nurses. One can compare the employment setting of a nurse from one year to the next and consider the movement of each nurse between employment settings. For example, if a nurse was employed in a hospital setting in 2021 and reported working in that setting again in 2022, the nurse would be considered retained. By contrast, if the nurse reported working in a community setting in 2022, the nurse would then be counted as an exit from the hospital setting as well as an entry to the community setting.

Several factors can affect the retention of a nurse from one setting to another over time. Examples include contraction/expansion of particular settings, age (e.g., retirement), the preference for a setting (e.g., work–life balance, scheduling)[2] and reclassification (e.g., outpatient clinic from "hospital" to "community").

# Urban and rural/remote[i]

A postal code analysis is performed to determine whether a nurse was practising in an urban or a rural/remote setting. In most cases, the postal code used is 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 is unknown or invalid, it is defaulted to *not stated*.

Using Statistics Canada's PCCF, postal codes are assigned to statistical area classifications (SACs) — urban or rural/remote. 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.

Starting in 2021, the methodology for mapping urban and rural boundaries has been enhanced to align with CIHI's data standards; this update has been applied to the reporting period (i.e., 2013 to 2022).

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 manner:

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

i. Details of the urban and rural/remote classification schemes can be found in du Plessis, et al.,[3] McNiven, et al.[4] and CIHI.[5]

# Comparability

As part of the data submission process, the regulatory bodies submit to CIHI the changes that have been made to their data for inclusion in this publication. A review of this information is helpful when looking at trends over time and comparing provinces/territories. Table 1 highlights the data submitted to CIHI in 2022 by province and territory for each regulated nurse type.

**Table 1** Data submitted to CIHI, by province and territory and nurse type, 2022

| Nurse type | N.L. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Y.T. | N.W.T. | Nun. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NP | D | D | D | D | D | D | D | D | D | D | D | D | D |
| RN | D | D | D | D | D | D | D | D | D | D | D | D | D |
| LPN | D | D | D | D | D | D | D | D | D | D | * | D | * |
| RPN† | n/a | n/a | n/a | n/a | n/a | n/a | D | D | D | D | * | n/a | n/a |

**Notes**

* Record-level data is not currently collected in the Health Workforce Database.

† RPNs are regulated separately from other regulated nursing professionals in 4 provinces and 1 territory.

n/a: Not applicable.

D: Record-level data was submitted to CIHI.

**Source**

Health Workforce Database, Canadian Institute for Health Information.

# International comparability

In an effort to improve the usability of Canada's health 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.

Table 2 highlights the nursing component for the 8 indicators included in CIHI's Nursing in Canada, 2022 release, as well as variations in terminology for the data presented by CIHI. Please see CIHI's Indicator Library for the detailed methodology for each health workforce indicator.

## Table 2 CIHI-reported World Health Organization indicators

| WHO indicator | Corresponding table in Nursing in Canada, 2022 — Data Tables |
|---|---|
| **1-02:** Density of Active Health Workers per 1,000 Population, by Cadre<br><br>**1-03:** Density of Active Health Workers per 1,000 Population, by Cadre and at Subnational Level | **Table 7:** Regulated nursing workforce employed in direct care per 100,000 population, by type of professional and jurisdiction, provinces/territories with available data, 2013 to 2022 |
| **1-04:** Density of Active Health Workers per 1,000 Population, by Cadre, by Activity Level (Practising, Professionally Active, Licensed to Practice) | **Table 8:** Regulated nursing supply, by employment status and type of professional, per 100,000 population, provinces/territories with available data, 2013 to 2022 |
| **1-05:** Ratio Between Active and Registered Health Workers, by Cadre | **Table 9:** Ratio of regulated nursing workforce employed in direct care to supply, by type of professional, provinces/territories with available data, 2013 to 2022 |
| **1-07:** Percentage of Active Health Workers in Different Age Groups, by Cadre and Sex | **Table 10:** Regulated nursing workforce employed in direct care, by age group, provinces/territories with available data, 2013 to 2022 |
| **1-09:** Percentage of Active Foreign-Trained Health Workers by Place of Birth (Domestic/Foreign) and by Country of Training | **Table 11:** Regulated nursing workforce employed in direct care, by top 10 countries of graduation and type of professional, provinces/territories with available data, 2013 to 2022 |
| **1-11:** Percentage of Active Health Workers Employed by Facility Type, by Cadre | **Table 12:** Regulated nursing workforce employed in direct care, by place of work and type of professional, provinces/territories with available data, 2013 to 2022 |
| **1-12:** Density of Active Health Workers in Different Regions (by Regional Typology, by Cadre) | **Table 13:** Regulated nursing workforce employed in direct care, by health region and jurisdiction, provinces/territories with available data, 2013 to 2022 |
| **1-12:** Density of Active Health Workers in Different Regions (by Regional Typology, by Cadre) | **Table 14:** Regulated nursing workforce employed in direct care per 100,000 population, by health region and jurisdiction, 2013 to 2022 |

**Source**
World Health Organization. *National Health Workforce Accounts: A Handbook (Draft for Consultation)*. 2016.

# Data limitations and considerations

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 considered 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. For a complete list of data elements, please review 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 2013 to 2022 that may or may not have an impact on comparability. The descriptions are organized by nurse type and by demographic, education, employment and geographic data elements.

If more than 30% of records in a province/territory have a *not stated* value (i.e., unknown, not applicable or not collected) for a data element, statistics based on that element are not reported. When the population of provinces/territories for which the data is unavailable exceeds 35% of the total Canadian population, no overall result is reported for "Provinces/territories with available data."

Please note that there has been variation in the *not stated* values of certain data elements from 2013 to 2022 among many provinces/territories and across the nursing professions. Caution should therefore be used when comparing data within this time period.

## Nurse practitioner data, 2013 to 2022

### General

| Province/territory | Data limitation |
|---|---|
| Nova Scotia | In 2019, the College of Registered Nurses of Nova Scotia (CRNNS) and the College of Licensed Practical Nurses of Nova Scotia (CLPNNS) amalgamated to the Nova Scotia College of Nursing (NSCN). Fluctuations in data can be attributed to this amalgamation. |
| British Columbia | In 2018, the College of Registered Nurses of British Columbia (CRNBC), the College of Licensed Practical Nurses of British Columbia (CLPNBC) and the College of Registered Psychiatric Nurses of British Columbia (CRPNBC) amalgamated to the British Columbia College of Nursing Professionals (BCCNP). Fluctuations in data can be attributed to this amalgamation.<br><br>On September 1, 2020, the British Columbia College of Nurses and Midwives (BCCNM) began regulating all nurses and midwives in B.C. The previous entities — BCCNP and the College of Midwives of British Columbia — have been amalgamated into a single entity. |

## Supply and workforce

| Province/territory | 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. Therefore, 2016 inflow/renewal counts and 2015 outflow counts are not available for NPs specifically; NPs are included in the 2016 RN inflow/renewal counts and 2015 RN outflow counts.<br><br>In 2022, the ARNNL did not put out a call for non-practising NPs to return to practice. |
| **Prince Edward Island** | The **Supply** and **Workforce** of NPs in Prince Edward Island increased between 2018 and 2019. Some variability may be attributable to NPs having registered after data was provided to CIHI. |
| **New Brunswick** | The **Supply** and **Workforce** of NPs in New Brunswick increased between 2015 and 2016. According to the Nurses Association of New Brunswick (NANB), the increase was due in part to an increase in graduates in the fall 2015 graduating class. |
| **Quebec** | 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.<br><br>The 2020, 2021 and 2022 NP supply data for Quebec includes partial return-to-practice data. |
| **Ontario** | The 2021 NP supply data for Ontario includes partial return-to-practice data. Only those who registered for COVID-19 Emergency Assignment Class for 2021 were included in the supply data.<br><br>In 2022, the CNO did not put out a call for non-practising NPs to return to practice. |

| Province/territory | Data limitation |
|---|---|
| **Manitoba** | Employment data for NPs and RNs in Manitoba for 2019 and 2020 has been suppressed due to significant under-coverage as a result of voluntary reporting. The corresponding information for 2014 to 2018 should be used with caution, as it was also reported voluntarily and may also be understated. The **supply** counts, which include nurses eligible to practise, are not based on voluntary reporting.<br><br>For 2019 and 2020, Manitoba did not provide the **Location of Employment** code. When determining secondary registrations that are removed from supply totals, the province of residence was used when employment location was unavailable. Therefore, RNs and NPs registered and working in Manitoba but residing in a neighbouring province or territory are not included in the Manitoba supply totals. This may affect comparability between Manitoba and other provinces and territories.<br><br>As of 2021, the College of Registered Nurses of Manitoba (CRNM) no longer collects **Workforce** data for NPs and RNs.<br><br>In 2021 and 2022, Manitoba did not provide province/territory of practice data, which is used to determine secondary registrations. As a result, secondary registrations were not removed from the **Supply** total. Comparisons between 2022 and earlier years, as well as comparisons between Manitoba and other provinces/territories, should therefore be made with caution.<br><br>The 2020, 2021 and 2022 NP return-to-practice data for Manitoba was not available. |
| **Alberta** | The 2021 NP supply data for Alberta includes partial return-to-practice data. Only those who registered for a full Nurse Practitioner permit after the expiration of their Pandemic Permit were included in the supply data. |
| **British Columbia** | The **Supply** and **Workforce** of NPs in British Columbia increased between 2020 and 2022. According to the British Columbia College of Nurses and Midwives (BCCNM), the increase was due in part to the postponement of the NP exams in 2020 because of COVID-19. The exams were restarted in 2021, and since then an increased number of NPs have been graduating in B.C. and passing the National Council Licensure Examination (NCLEX) exam.<br><br>The 2020 and 2022 NP return-to-practice data for B.C. was not available.<br><br>The 2021 NP supply data for B.C. does not include return-to-practice data. |
| **Yukon** | The **Supply** and **Workforce** of NPs in Yukon increased between 2020 and 2021. According to the Yukon Registered Nurses Association (YRNA), the increase was due in part to a large proportion of new nurse practitioners who provide telehealth and are not located in Yukon but require YRNA licensure in order to provide services to Yukon residents.<br><br>The 2020 and 2021 NP supply data for Yukon does not include return-to-practice data. |
| **Northwest Territories and Nunavut** | The **Supply** and **Workforce** of NPs decreased between 2017 and 2018; comparisons should therefore be made with caution for employment-related data elements. The overall decline of the **Supply** and **Workforce** for NPs is attributed to the nature of the work in the Northwest Territories and Nunavut. |

## Demographic

| Province/territory | Data limitation |
|---|---|
| **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 submits age groups at the record level in place of **Birth Year** as well as aggregate tables on **Sex** and **Average Age**. The age groups are calculated as of the previous year.<br><br>For 2010 to 2014, CRNM provided aggregate-level data for **Sex** and **Average Age** based on **Workforce** counts; therefore, the Canada total for these variables does not match the Canada **Supply** count.<br><br>As of 2019, CRNM no longer collects **Sex** data from new registrants. |

## Education

Education-related elements (e.g., Location of Graduation, Years Since Graduation) may reflect an NP's initial RN education.

| Province/territory | Data limitation |
|---|---|
| **Prince Edward Island** | In 2013, 2015, 2016 and 2019, **Location of Graduation** was not reported due to a high proportion of missing values. |
| **Manitoba** | In Manitoba, due to the time at which data is collected, **Years Since Graduation** is calculated as of the previous year. |

## Employment

| Province/territory | Data limitation |
|---|---|
| **Prince Edward Island** | In 2021, information pertaining to **Employment Status, Place of Work, Position** and **Area of Responsibility** was not reported due to a high proportion of missing values, resulting from the province's transition to a new database. |
| **Nova Scotia** | From 2018 to 2019, there was an increase in **Position — Nurse Practitioner**. According to the Nova Scotia College of Nursing (NSCN), there are government initiatives to open primary health centres and the NSCN anticipates that this number will grow. |
| **Quebec** | **Employment Status** of all NPs who were not employed in nursing was reported as *not stated*. Caution should be used when comparing Employment Status data from Quebec with that from other provinces/territories.<br><br>In 2019, changes were made to the collection of **Position** and **Area of Responsibility**. Comparisons between 2019 and earlier years should therefore be made with caution for these data elements.<br><br>As of 2019, NPs in Quebec work in mental health, pediatrics and oncology care. As a result, there has been a decrease in the number of NPs working in community care and an increase in the number reporting *mental health/psychiatry*, *oncology* and *other direct care* for **Area of Responsibility**.<br><br>As of 2022, information pertaining to **Place of Work** is not reported because such data is no longer collected. |

| Province/territory | Data limitation |
|---|---|
| **Ontario** | As of 2012, members are required to provide detailed employment information (**Employment Status**, **Place of Work**, **Position** and **Area of Responsibility**) about all of their current employers and to designate an employer to appear on the College of Nurses of Ontario's (CNO) register. The CNO does not have a concept of primary employer; however, as CIHI requires this information in order to derive the 4 data elements noted above, the CNO provides CIHI with a primary employer based on information submitted by the member on the register.<br><br>NPs in Ontario do not have the option to record *research* as their area of responsibility. As such, statistics for the **Area of Responsibility** value *research* are not applicable, and caution should be used when comparing **Area of Responsibility** data from Ontario with that from other jurisdictions. |
| **Manitoba** | Information pertaining to **Place of Work**, **Position** and **Area of Responsibility** for NPs and RNs in Manitoba for 2019 and 2020 has been suppressed due to significant under-coverage as a result of voluntary reporting. The corresponding information for 2014 to 2018 should be used with caution, as it was also reported voluntarily and may also be understated.<br><br>In 2019 and 2020, **Employment Status** was not reported due to a high proportion of missing values.<br><br>As of 2021, information pertaining to **Employment Status**, **Place of Work**, **Position** and **Area of Responsibility** was not reported because **Workforce** data is no longer collected by the CRNM. |
| **Saskatchewan** | In 2022, there was an increase in *employed in nursing discipline with casual status* for **Employment Status**. According to the College of Registered Nurses of Saskatchewan (CRNS), this is likely because this status allows registrants to have greater flexibility with their work–life balance. |
| **Alberta** | In 2012 and 2013, reporting **Place of Work**, **Position** and **Area of Responsibility** was not mandatory on the College and Association of Registered Nurses of Alberta (CARNA) registration renewal application. This change led to an increase in non-response for the data elements in these years. |
| **British Columbia** | 2019 data from B.C. was received later in the data collection cycle than in previous years, reducing the time allotted for data quality checks. Please use caution when interpreting changes between 2018 and 2019.<br><br>In 2021, there was an increase in *employed in nursing discipline with full-time status* and *employed in nursing discipline with part-time status* for **Employment Status**. There was an increase in *community health*, *medicine/surgery*, *other direct care* and *not stated* for **Area of Responsibility**. There was an increase in *hospital (general, maternal, pediatric, psychiatric)*, *community health centre* and *physician's office/family practice unit* for **Place of Work**. |

| Province/territory | Data limitation |
|---|---|
| **Northwest Territories and Nunavut** | Data for the Northwest Territories and Nunavut is provided by the Registered Nurses Association of the Northwest Territories and Nunavut (RNANT/NU). It is not possible to accurately attribute the number of NPs 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.<br><br>In 2018 and 2019, supply and workforce counts submitted to CIHI excluded a number of RNs and NPs. According to RNANT/NU, this is due to an error in the submission process. Please interpret this data with caution when comparing with other years.<br><br>In 2020, 2021 and 2022, the number of RNs and NPs who reported *employed in nursing discipline with casual status* increased. According to RNANT/NU, many nurses in these territories have short-term contracts and use the value *casual status* to report their employment status. Please interpret this data with caution. |

## Geographic

| Province/territory | Data limitation |
|---|---|
| **Prince Edward Island** | In 2021, information pertaining to **Geography** (urban and rural/remote) was not reported due to a high proportion of missing values, resulting from the province's transition to a new database. |
| **Manitoba** | Over the past several years, 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.<br><br>**Postal Code of Primary Worksite**<br>• 2017: full postal code collected<br>• 2018 to 2022: not collected<br>• 2013 to 2016: partial (3 digit) postal code collected<br><br>**Postal Code of Residence**<br>• 2013 to 2022: full postal code collected<br><br>Partial postal codes can affect the accuracy of urban and rural/remote assignment. Therefore, geographical trends should be interpreted with caution. |
| **Yukon** | 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 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. |
| **Northwest Territories/ Nunavut** | In 2019, **Geography** (urban and rural/remote) was not reported due to a high number of records with a missing **Postal Code of Primary Worksite**. |

# Registered nurse data, 2013 to 2022

## General

| Province/territory | Data limitation |
|---|---|
| **Nova Scotia** | In 2019, the College of Registered Nurses of Nova Scotia (CRNNS) and the College of Licensed Practical Nurses of Nova Scotia (CLPNNS) amalgamated to the Nova Scotia College of Nursing (NSCN). Fluctuations in data can be attributed to this amalgamation. |
| **British Columbia** | In 2018, the College of Registered Nurses of British Columbia (CRNBC), the College of Licensed Practical Nurses of British Columbia (CLPNBC) and the College of Registered Psychiatric Nurses of British Columbia (CRPNBC) amalgamated to the British Columbia College of Nursing Professionals (BCCNP). Fluctuations in data can be attributed to this amalgamation.<br><br>On September 1, 2020, the British Columbia College of Nurses and Midwives (BCCNM) began regulating all nurses and midwives in B.C. The previous entities — BCCNP and the College of Midwives of British Columbia — have been amalgamated into a single entity. |

## Supply and workforce

| Province/territory | 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. These counts included both NPs and RNs. Therefore, 2016 RN inflow/renewal counts and 2015 RN outflow counts also include NPs. Additionally, these counts include secondary registrations, which are usually excluded. Comparisons should be made with caution due to this over-coverage.<br><br>In 2022, the ARNNL did not put out a call for non-practising RNs to return to practice. |
| **Prince Edward Island** | The 2021 RN supply data for P.E.I. does not include return-to-practice data. |
| **New Brunswick** | The **Supply** and **Workforce** of RNs in New Brunswick decreased between 2015 and 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. |

| Province/territory | Data limitation |
|---|---|
| **Quebec** | 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 **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.<br><br>The number of RNs in manager positions declined between 2012 and 2018. 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.<br><br>The number of RNs in manager positions increased between 2018 and 2019. Comparisons over time and with other provinces and territories should be made with caution.<br><br>The 2020, 2021 and 2022 RN supply data for Quebec includes partial return-to-practice data. |
| **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 they 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.<br><br>The 2020 RN supply data for Ontario does not include return-to-practice data.<br><br>The 2021 RN supply data for Ontario includes partial return-to-practice data. Only those who registered for COVID-19 Emergency Assignment Class for 2021 were included in the supply data.<br><br>In 2022, the CNO did not put out a call for non-practising RNs to return to practice. |
| **Manitoba** | Employment data for NPs and RNs in Manitoba for 2019 and 2020 has been suppressed due to significant under-coverage as a result of voluntary reporting. The corresponding information for 2014 to 2018 should be used with caution, as it was also reported voluntarily and may also be understated. The supply counts, which include nurses eligible to practise, are not based on voluntary reporting.<br><br>Manitoba does not provide the **Location of Employment** code. When determining secondary registrations that are removed from supply totals, the province of residence is used when employment location is unavailable. Therefore, RNs and NPs registered and working in Manitoba but residing in a neighbouring province or territory are not included in the Manitoba supply totals. This may affect comparability between Manitoba and other provinces and territories.<br><br>As of 2021, CRNM no longer collects **Workforce** data for NPs and RNs.<br><br>In 2021 and 2022, Manitoba did not provide province/territory of practice data, which is used to determine secondary registrations. As a result, secondary registrations were not removed from the **Supply** total. Comparisons between 2022 and earlier years, as well as comparisons between Manitoba and other provinces/territories, should therefore be made with caution.<br><br>The 2020, 2021 and 2022 RN return-to-practice data for Manitoba was not available. |

| Province/territory | Data limitation |
|---|---|
| Saskatchewan | The 2020 RN supply data for Saskatchewan does not include return-to-practice data. |
| Alberta | The annual growth rates for RNs in Alberta fluctuated between 2013 and 2017. According to CARNA, the fluctuation is the result of a system upgrade implemented in 2013.<br><br>The 2020 RN supply data for Alberta does not include return-to-practice data.<br><br>The 2021 RN supply data for Alberta includes partial return-to-practice data. Only those who registered for a full RN permit after the expiration of their Pandemic Permit were included in the supply data. |
| British Columbia | The 2020 and 2022 RN return-to-practice data for B.C. was not available.<br><br>The 2021 RN supply data for B.C. does not include return-to-practice data. |
| Northwest Territories and Nunavut | The **Supply** and **Workforce** of RNs decreased between 2017 and 2018; comparisons should therefore be made with caution for employment-related data elements. The overall decline of the **Supply** and **Workforce** for RNs is attributed to the nature of the work in the Northwest Territories and Nunavut.<br><br>In 2019, supply and workforce counts submitted to CIHI excluded a number of RNs and NPs. According to RNANT/NU, this is due to an error in the submission process. Please interpret this data with caution. |
| Yukon | The 2020 and 2021 RN supply data for Yukon does not include return-to-practice data. |

## Demographic

| Province/territory | Data limitation |
|---|---|
| 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**. The age groups are calculated as of the previous year.<br><br>For 2009 to 2014, CRNM provided aggregate-level data for **Sex** and **Average Age** based on **Workforce** counts; therefore, the Canada total for these variables does not match the Canada **Supply** count.<br><br>As of 2019, CRNM no longer collects **Sex** data from new registrants. |

## Education

| Province/territory | Data limitation |
|---|---|
| Manitoba | In Manitoba, due to the time at which data is collected, **Years Since Graduation** is calculated as of the previous year. |

## Employment

| Province/territory | Data limitation |
|---|---|
| **Prince Edward Island** | In 2021 and 2022, information pertaining to **Employment Status, Place of Work, Position** and **Area of Responsibility** was not reported due to a high proportion of missing values, resulting from the province's transition to a new database. |
| **Quebec** | **Employment Status** of all RNs who were not employed in nursing was reported as *not stated*. Caution should be used when comparing Employment Status data from Quebec with that from other provinces/territories.<br><br>Starting in 2015, the OIIQ registration form required RNs to specify their **Place of Work**. As a result, the number of RNs recording *other* as their **Place of Work** has declined alongside an increase in *hospital, community health* and *nursing home/long-term care*.<br><br>In 2019, changes were made to the collection of **Position** and **Area of Responsibility**. Comparisons between 2019 and earlier years should therefore be made with caution for these data elements.<br><br>As of 2022, information pertaining to Place of Work is not reported because such data is no longer collected.<br><br>In 2022, there was an increase in RNs submitting **Employment Status** of *employed in nursing discipline with full-time status* and a decrease in those reporting *employed in nursing discipline with part-time status.* According to the OIIQ, several factors contributed to the shift from part-time employment to full-time employment, such as completion of an advanced practice training program to move from part time to full time. The workforce shortage in many regions may lead RNs to transfer from part-time work to a full-time position to fulfill the increasing demand. |
| **Ontario** | As of 2012, members are required to provide detailed employment information (**Employment Status**, **Place of Work**, **Position** and **Area of Responsibility**) 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.<br><br>RNs in Ontario do not have the option to record *research* as their area of responsibility. As such, statistics for the **Area of Responsibility** value *research* are not applicable, and caution should be used when comparing Area of Responsibility data from Ontario with that from other jurisdictions. |
| **Manitoba** | Information pertaining to **Place of Work**, Position and **Area of Responsibility** for NPs and RNs in Manitoba for 2019 and 2020 has been suppressed due to significant under-coverage as a result of voluntary reporting. The corresponding information for 2014 to 2018 should be used with caution, as it was also reported voluntarily and may also be understated.<br><br>In 2019 and 2020, **Employment Status** was not reported due to a high proportion of missing values.<br><br>Since 2021, information pertaining to **Employment Status**, **Place of Work**, **Position** and **Area of Responsibility** has not been reported because Workforce data is no longer collected by the CRNM. |

| Province/territory | Data limitation |
|---|---|
| **Saskatchewan** | In 2020, the number of RNs who submitted *not stated* for **Employment Status** increased. According to the CRNS, this is due to the implementation of a new database. Please use caution when interpreting this data. |
| **Alberta** | From 2011 to 2013, reporting **Place of Work**, **Position** and **Area of Responsibility** 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. |
| **British Columbia** | 2019 data from B.C. was received later in the data collection cycle than in previous years, reducing the time allotted for data quality checks. Please use caution when interpreting changes between 2018 and 2019. |
| **Yukon** | In 2019, there was an increase in nurses submitting **Employment Status** of *employed in nursing discipline with full-time status* and a decrease in those reporting *employed in nursing discipline with casual status*. According to the YRNA, this is likely due to increased hiring of full-time employees by the Yukon government. A brand new 150-bed continuing care facility has opened and is currently being populated and staffed. For this reason, the YRNA expects that nursing registrations will continue to gradually rise.<br><br>In 2019, there was an increase in RNs submitting *nursing home/long-term care facility* as their **Place of Work**. According to the YRNA, this is likely due to increased hiring of full-time employees by the Yukon government. Due to the small size of Yukon, the new continuing care facility (see above) has made a great impact on the number of long-term care positions available.<br><br>In 2020, the number of RNs who submitted *community health* for **Place of Work** increased. According to the YRNA, this is due to an increase in hiring in that specific area. Please interpret this data with caution.<br><br>In 2021, there was an increase in employed in *nursing discipline with full-time* for **Employment Status**, as well as an increase in provinces/territories other than Yukon for **Location of Employment** and **Location of Residence**. According to the YRNA, this is likely due to an increase in telehealth and short-term contracts, which allow RNs to primarily work from home for their main employment or to reside elsewhere in Canada. This also led to a decrease in **Location of Residence and Location of Employment** for Yukon.<br><br>In 2022, there was an increase in *employed in nursing discipline with full-time status* for **Employment Status**. According to the YRNA, this is likely due to increased hiring. |

| Province/territory | Data limitation |
|---|---|
| **Northwest Territories and Nunavut** | The RN **Workforce** in the Northwest Territories and Nunavut relies on a core of resident RNs with **Employment Status** of *full time*, 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.<br><br>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.<br><br>In 2020, 2021 and 2022, the number of RNs and NPs who reported *employed in nursing discipline with casual status* increased. According to RNANT/NU, many nurses in these territories have short-term contracts and use the value *casual status* to report their employment status. Please interpret this data with caution.<br><br>In 2022, there was a decrease in *employed in nursing discipline with full-time status* for **Employment Status**. According to RNANT/NU, this is likely because registrants are choosing to work with causal status and may also likely be because community health nurse positions that have been vacant for several years are being filled. There was a decrease in the **Location of Employment** in Nunavut. According to RNANT/NU, this is likely due to the national nursing shortage and the difficulty of recruiting nurses to the North. |

## Geographic

| Province/territory | Data limitation |
|---|---|
| **Prince Edward Island** | In 2021, information pertaining to **Geography** (urban and rural/remote) was not reported due to a high proportion of missing values, resulting from the province's transition to a new database. |
| **Manitoba** | 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.<br><br>**Postal Code of Primary Worksite**<br><br>• 2018 to 2022: not collected<br>• 2013 to 2016: partial (3 digit) postal code collected<br>• 2017: full postal code collected<br><br>**Postal Code of Residence**<br><br>• 2013 to 2022: full postal code collected<br><br>Partial postal codes can affect the accuracy of urban and rural/remote assignment. Therefore, geographical trends should be interpreted with caution. |
| **Northwest Territories and Nunavut** | Location of Residence and Location of Employment as *Nunavut* increased between 2018 and 2019. This increase was not expected by the RNANT/NU.<br><br>In 2019, **Geography** (urban and rural/remote) was not reported due to a high number of records with a missing **Postal Code of Primary Worksite**. |

# Registered psychiatric nurse data, 2013 to 2022

## General

| Province/territory | Data limitation |
|---|---|
| **Manitoba** | In October 2019, the CRNM implemented a new database. As a result, there were some fluctuations for **Employment Status**. Please use caution when interpreting this data. |
| **British Columbia** | In 2018, the College of Registered Nurses of British Columbia (CRNBC), the College of Licensed Practical Nurses of British Columbia (CLPNBC) and the College of Registered Psychiatric Nurses of British Columbia (CRPNBC) amalgamated to the British Columbia College of Nursing Professionals (BCCNP). Fluctuations in data can be attributed to this amalgamation.<br><br>On September 1, 2020, the British Columbia College of Nurses and Midwives (BCCNM) began regulating all nurses and midwives in B.C. The previous entities — BCCNP and the College of Midwives of British Columbia — have been amalgamated into a single entity. |
| **Yukon** | CIHI does not collect record-level RPN data from Yukon. Aggregate counts are included where possible. |

## Supply and workforce

| Province/territory | Data limitation |
|---|---|
| **Manitoba** | The 2020 RPN supply data for Manitoba does not include return-to-practice data. |
| **Saskatchewan** | The 2020 and 2021 RPN return-to-practice data for Saskatchewan was not available.<br><br>In 2022, the Registered Psychiatric Nurses Association of Saskatchewan (RPNAS) did not put out a call for non-practising RPNs to return to practice. |
| **Alberta** | In 2020, the College of Registered Psychiatric Nurses of Alberta did not put out a call for non-practising RPNs to return to practice.<br><br>The 2021 RPN supply data for Alberta does not include return-to-practice data. |
| **British Columbia** | The flow of RPNs in and out of B.C. between 2018 and 2019 is unavailable.<br><br>The 2020 and 2022 RPN return-to-practice data for B.C. was not available.<br><br>The 2021 RPN supply data for B.C. does not include return-to-practice data. |
| **Yukon** | The 2020 and 2022 RPN return-to-practice data for Yukon was not available.<br><br>In 2021, the Department of Community Services, Government of Yukon, did not put out a call for non-practising RPNs to return to practice. |

## Demographic

| Province/territory | Data limitation |
|---|---|
| **Yukon** | As of 2022, the Yukon Department of Community Services no longer collects **Sex** data, as a result of updating its licensing system.<br><br>In 2022, **Average Age** and **Age Group** data was not available. |

## Education

| Province/territory | Data limitation |
|---|---|
| **Manitoba** | In 2019, there was a decrease in RPNs with *diploma in psychiatric nursing* and an increase in RPNs with *baccalaureate in psychiatric nursing* as their **Initial Education in Nursing Discipline**. According to the College of Registered Psychiatric Nurses of Manitoba (CRPNM), this is due to the increasing number of diploma prepared RPNs who are retiring and to the influx of new graduates who are degree prepared. |
| **Saskatchewan** | In 2017, the RPNAS reported a higher proportion of registrants as *not stated* for **Other Education in Psychiatric Nursing (Degree)**. As a result, there was a decrease in the number of RPNs reporting *advanced diploma in psychiatric nursing* and *none*. According to RPNAS, the decrease was due to a system mapping issue.<br><br>In 2022, there was an increase in RPNs with 0 to 10 years for the derived element **Years Since Graduation**. According to RPNAS, this reflects the increase in graduates. There was a decrease in RPNs with 21 to 30 years for the derived element **Years Since Graduation**. According to RPNAS, this is likely due to retirements. |
| **British Columbia** | In 2019, 2020 and 2021, **Years Since Graduation** is not available for a proportion of B.C.'s RPNs. Comparisons with previous years or with other provinces should therefore be made with caution.<br><br>Starting in 2019, **Location of Graduation** was not reported due to a high proportion of missing values. This exclusion may also affect the **top 10 Countries of Graduation**. |

## Employment

| Province/territory | Data limitation |
|---|---|
| **Manitoba** | In 2019, there was an increase of RPNs reporting *Manitoba* as their **Location of Employment**. According to the College of Registered Psychiatric Nurses of Manitoba (CRPNM), this is due to an influx of new graduates, internationally educated nurses and interprovincial relocation.<br><br>In 2020, the number of RPNs who submitted *not employed and seeking employment in nursing* for **Employment Status** decreased. According to the CRPNM, this is due to the implementation of a new database that requires all RPNs to report place of employment; therefore, not employed RPNs are excluded. Please use caution when interpreting this data.<br><br>In 2020 and 2021, the number of RPNs who submitted *administration* for **Area of Responsibility** decreased. According to the CRPNM, this is due to a decrease in hiring for administration position by the government. Please use caution when interpreting this data.<br><br>In 2021, the RPN supply in Manitoba increased by 7.6%, which may be attributable to communication regarding pending changes to legislation and regulation that will discontinue the Non-Practising register. Those who might have otherwise renewed or moved to the Non-Practising register (for parental leave, etc.) are staying on the Practising register. The increase may also be related to a small number of RPNs who returned to practice during the pandemic, according to the CRPNM. |

| Province/territory | Data limitation |
|---|---|
| **Saskatchewan** | RPNAS identified a fluctuation between 2015 and 2016 in the proportion of registrants reporting their **Place of Work** as *nursing home/long-term care facility* and *general hospital*. This is a result of a reclassification of several nursing homes/long-term care facilities to general hospitals by the province in 2016.<br><br>In 2017 and 2018, **Employment Status** data was not available from RPNAS; as such, all RPNs employed in Saskatchewan were coded as *employed — status unknown*. CIHI is working with RPNAS to review and improve the reporting.<br><br>In 2019, the number of **Employment Status** *unknown* is higher than in 2018. Please use caution when interpreting this data. |
| **British Columbia** | 2019 data from B.C. was received later in the data collection cycle than in previous years, reducing the time allotted for data quality checks. Please use caution when interpreting changes between 2018 and 2019.<br><br>In 2019, **Position** is not reported due to a high number of non-standard values submitted. In 2019, there was an improvement in the quality of data submitted for **Employment Status**.<br><br>In 2019, **Place of Work** and **Area of Responsibility** were not reported were not reported due to high proportions of missing values.<br><br>In 2020 and 2021, **Place of Work** was not reported due to data quality issues. |

# Licensed practical nurse data, 2013 to 2022

## General

| Province/territory | Data limitation |
|---|---|
| **Nova Scotia** | In 2019, the College of Registered Nurses of Nova Scotia (CRNNS) and the College of Licensed Practical Nurses of Nova Scotia (CLPNNS) amalgamated to the Nova Scotia College of Nursing (NSCN). Fluctuations in data can be attributed to this amalgamation. |
| **New Brunswick** | In 2019, the Association of New Brunswick Licensed Practical Nurses was only able to provide aggregate supply data to CIHI. |
| **British Columbia** | In 2018, the College of Registered Nurses of British Columbia (CRNBC), the College of Licensed Practical Nurses of British Columbia (CLPNBC) and the College of Registered Psychiatric Nurses of British Columbia (CRPNBC) amalgamated to the British Columbia College of Nursing Professionals (BCCNP). Fluctuations in data can be attributed to this amalgamation.<br><br>On September 1, 2020, the British Columbia College of Nurses and Midwives (BCCNM) began regulating all nurses and midwives in B.C. The previous entities — BCCNP and the College of Midwives of British Columbia — have been amalgamated into a single entity. |
| **Yukon** | From 2017 to 2021, the Yukon Department of Community Services submitted aggregate supply data for LPNs. Data for 2009 to 2016 was submitted at the record level. |
| **Northwest Territories** | In 2021, the Northwest Territories Department of Health and Social Services submitted aggregate supply data for LPNs. |
| **Nunavut** | CIHI does not collect record-level LPN data from Nunavut. Aggregate counts are included where possible. |

## Supply and workforce

| Province/territory | Data limitation |
|---|---|
| **Newfoundland and Labrador** | The 2020 LPN supply data for Newfoundland and Labrador does not include return-to-practice data. |
| **Prince Edward Island** | In 2019, the College of Licensed Practical Nurses of Prince Edward Island (CLPNPEI) changed the identifiers assigned to registrants in its annual submission to CIHI, limiting the ability to analyze the flow of nurses in and out of P.E.I. between 2018 and 2019.<br><br>In 2022, the CLPNPEI did not put out a call for non-practising LPNs to return to practice. |
| **New Brunswick** | As 2019 data is available at the aggregate level only, the flow of LPNs between 2019 and 2020 is not available.<br><br>The LPN supply in New Brunswick decreased by 6.4% in 2020 and increased by 11.2% in 2021. According to the Association of New Brunswick Licensed Practical Nurses (ANBLPN), this might be attributable to an increased number of parental leaves in 2020, the return from parental leaves in 2021, the number of LPNs not actively working due to COVID-19 in 2020 (not vaccinated, retired, increased number of non-practising members, etc.), the number of LPNs who returned to the workforce late in 2021 (returned from another province, returned from retirement) and an increase in internationally educated nurses entering New Brunswick.<br><br>The 2020 LPN supply data for New Brunswick does not include return-to-practice data.<br><br>The 2021 LPN return-to-practice data for New Brunswick was not available.<br><br>The 2022 LPN supply data includes partial return-to-practice data. |
| **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.<br><br>In 2019, the outflow of LPNs was low. According to the OIIAQ, the decrease was because LPNs had an extended period to pay their dues and avoid a write-off at the end of 2019–2020 with the onset of the pandemic.<br><br>The 2020 LPN supply data for Quebec does not include return-to-practice data.<br><br>In 2022, LPN supply and workforce data for 2019 and 2021 was adjusted due to the inclusion of inactive registrations in previous submissions made by the data provider, and the change in CIHI's methodology for the cut-off time frame.<br><br>The 2021 LPN return-to-practice data for Quebec was not available.<br><br>In 2022, the OIIAQ did not put out a call for non-practising LPNs to return to practice. |

| Province/territory | Data limitation |
|---|---|
| **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 they 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.<br><br>The 2020 LPN supply data for Ontario does not include return-to-practice data.<br><br>The 2021 LPN supply data for Ontario includes partial return-to-practice data. Only those who registered for COVID-19 Emergency Assignment Class for 2021 were included in the supply data.<br><br>In 2022, the CNO did not put out a call for non-practising LPNs to return to practice. |
| **Manitoba** | The 2020 LPN return-to-practice data for Manitoba was not available.<br><br>The 2022 LPN supply data includes partial return-to-practice data. |
| **Saskatchewan** | The LPN **Workforce** in Saskatchewan decreased between 2018 and 2019, and the number of nurses who reported *unemployed* and *seeking employment* increased. Please interpret this data with caution.<br><br>The 2020, 2021 and 2022 LPN supply data for Saskatchewan does not include return-to-practice data. |
| **Alberta** | The 2021 and 2022 LPN return-to-practice data for Alberta was not available. |
| **British Columbia** | From 2018 to 2021, **Years Since Graduation** and **Location of Graduation** are not available for a proportion of B.C. LPNs. Comparisons with previous years or with other provinces and territories should therefore be made with caution.<br><br>The 2020 and 2022 LPN return-to-practice data for B.C. was not available.<br><br>The 2021 LPN supply data for B.C. does not include return-to-practice data. |
| **Yukon** | The 2021 LPN return-to-practice data for Yukon was not available.<br><br>In 2020 and 2022, the Department of Community Services, Government of Yukon, did not put out a call for non-practising LPNs to return to practice. |
| **Northwest Territories** | In 2020, the Department of Health and Social Services, Government of the Northwest Territories, did not put out a call for non-practising LPNs to return to practice.<br><br>The 2021 LPN return-to-practice data for the Northwest Territories was not available. |
| **Nunavut** | In 2020, the Department of Health, Government of Nunavut, did not put out a call for non-practising LPNs to return to practice.<br><br>The 2021 LPN return-to-practice data for Nunavut was not available. |

## Demographic

| Province/territory | Data limitation |
|---|---|
| **British Columbia** | BCCNP receives registration requests from students enrolled in Bachelor of Science in Nursing (BSN) programs. If the registrant fulfills the academic competencies, they are 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**. |
| **Yukon** | In 2021, the Yukon Department of Community Services submitted aggregate-level data for **Sex**, **5-Year Age Band** and **Average Age**.<br><br>As of 2022, the Yukon Department of Community Services no longer collects **Sex** data, as a result of updating its licensing system.<br><br>In 2022, **Average Age** and **Age Group** data was not available. |

## Education

| Province/territory | Data limitation |
|---|---|
| **New Brunswick** | In 2022, the quality of education-related data improved because ANBLPN's new database is better at capturing such data. Per ANBLPN, New Brunswick is getting more internationally educated nurses than in previous years who trained as RNs in their home countries and are working as LPNs in New Brunswick. |
| **Ontario** | In 2018, the CNO implemented a new customer relationship management software leading to data quality improvements for **Other Education in Nursing — Non-Practical Nursing** and **Education in Other Than Nursing**. |
| **Saskatchewan** | In 2019, there was a decrease in LPNs submitting *diploma/certificate* and an increase in LPNs submitting *none* as their **Education in Other Than Nursing** and **Other Education in Nursing — Non-Practical Nursing**. |
| **British Columbia** | The **Location of Graduation** of LPNs registered in B.C. is not consistently available for 2018 to 2021. |

## Employment

| Province/territory | Data limitation |
|---|---|
| **Newfoundland and Labrador** | In 2019, data quality improvements were made to **Place of Work** data submitted to CIHI. Previously, LPNs working in a community health centre were being submitted as working in a hospital. Please use caution when interpreting this data.<br><br>In 2019, data quality improvements were made to **Location of Employment** data submitted to CIHI. |
| **Prince Edward Island** | In 2019, data quality improvements were made to **Employment Status** and **Location of Employment** data submitted to CIHI.<br><br>In 2019, **Place of Work** and **Area of Responsibility** were not reported due to data quality issues.<br><br>In 2022, there was an increase in *unknown* values for **Place of Work**, **Position**, **Area of Responsibility** and **Location of Employment**. This is likely due to new registrants entering the profession in 2022; those who do not have employment-related information submit their employment-related data as *unknown*. |
| **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 *not employed* to *not employed and seeking employment in practical nursing*. |
| **New Brunswick** | In 2021, **Place of Work** was not reported due to a high proportion of missing values.<br><br>In 2022, the ANBLPN implemented a new database, improving data quality for **Place of Work**. |
| **Quebec** | Prior to 2012, the OIIAQ did not collect data for the value *mental health centre*, 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 CSSSs. 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** | As of 2012, members are required to provide detailed employment information (**Employment Status**, **Place of Work**, **Position** and **Area of Responsibility**) 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. In 2018, the CNO implemented a new database. As a result, there was an increase in *not stated* values for the following data elements: **Place of Work**, **Position** and **Area of Responsibility**.<br><br>LPNs in Ontario do not have the option to record *research* as their area of responsibility. As such, statistics for the **Area of Responsibility** value *research* are not applicable, and caution should be used when comparing Area of Responsibility data from Ontario with that from other jurisdictions. |
| **Saskatchewan** | In 2019, there was an increase in *not employed* and *seeking employment in nursing* values, and a decrease in *employed in nursing discipline with casual status* and *employed in nursing discipline with full-time status* for **Employment Status**. Fluctuations were also observed for **Area of Responsibility**. Please use caution when interpreting this data. |

| Province/territory | Data limitation |
|---|---|
| **Alberta** | In 2018, there was a decrease in nurses working as *staff nurse/community health nurse* and an increase in nurses working in *other position*. According to the College of Licensed Practical Nurses of Alberta (CLPNA), the data element **Position (Primary Employer)** is self-reported and the fluctuations reflect employment practices in Alberta.<br><br>In 2019, there was a decrease in *not employed* and *seeking employment in nursing* values, and an increase in *employed in nursing discipline with casual status* for **Employment Status**.<br><br>The CLPNA has undertaken a database cleanup. As a result, in 2020, there was an increase in nurses working as *staff nurse/community health nurse* and a decrease in nurses working in *other position* for the data element **Position (Primary Employer)**.<br><br>In 2021, there was an increase in LPNs working in public health, which was directly related to COVID-19, as many were working in immunization clinics and contact tracing. |
| **British Columbia** | As of 2011, the CLPNBC modified its renewal form to include **Employment Status** values *employed — part time* and *employed — casual*. Previously, the 2 categories were combined.<br><br>2019 data from B.C. was received later in the data collection cycle than in previous years, reducing the time allotted for data quality checks. Please use caution when interpreting changes between 2018 and 2019. |

# Privacy and confidentiality

The protection of individual privacy, the confidentiality of records and the security of information are essential to CIHI's operations. In support of this position, CIHI established a comprehensive Privacy, Confidentiality and Security Program. A key element of the program is the statement of principles and policies set out in the document *Privacy Policy on the Collection, Use, Disclosure and Retention of Health Workforce Personal Information and De-Identified Data, 2011*. This document is available free for download from CIHI's website.

CIHI is a prescribed entity in Ontario, which means that health information custodians in Ontario can provide personal health data to us without the consent of individuals.

The HWDB does not collect, use or disclose personal information. The data collected may contain small cell sizes. However, in keeping with Section 32 of the Health Workforce Privacy Policy, 2011, CIHI makes statistical information publicly available only in a manner designed to minimize any risk of identifiability and residual disclosure of personal information about individuals.

# Appendices

## Appendix A: List of health care professionals, first year of regulation and regulation status, by province and territory

| Health care professional group | N.L. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Y.T. | N.W.T. | Nun. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nurse practitioners | 1997 | 2006 | 2002 | 2002 | 2003 | 1997 | 2005 | 2003 | 2002 | 2005 | 2013 | 2004 | 2004 |
| Registered nurses | 1954 | 1949 | 1910 | 1916 | 1946 | 1922 | 1913 | 1967 | 1916 | 1918 | 1994 | 1973 | 1999 |
| Licensed practical nurses | 1983 | 1959 | 1957 | 1960 | 1974 | 1947 | 1946 | 1956 | 1986 | 1988 | 1987 | 1988 | 2011 |
| Registered psychiatric nurses | n/a | n/a | n/a | n/a | n/a | n/a | 1960 | 1948 | 1955 | 1951 | 2009 | n/a | n/a |

**Note**
n/a: Not applicable.
**Source**
Health Workforce Database, Canadian Institute for Health Information.

# Appendix B: List of HWDB data providers, 2022 nursing data

| | |
|---|---|
| **Nurse practitioners** | |
| **Newfoundland and Labrador** | College of Registered Nurses of Newfoundland and Labrador |
| **Prince Edward Island** | College of Registered Nurses and Midwives of Prince Edward Island |
| **Nova Scotia** | Nova Scotia College of Nursing |
| **New Brunswick** | Nurses Association of New Brunswick |
| **Quebec** | Ordre des infirmières et infirmiers du Québec |
| **Ontario** | College of Nurses of Ontario |
| **Manitoba** | College of Registered Nurses of Manitoba |
| **Saskatchewan** | College of Registered Nurses of Saskatchewan |
| **Alberta** | College and Association of Registered Nurses of Alberta |
| **British Columbia** | British Columbia College of Nurse and Midwives |
| **Yukon** | Yukon Registered Nurses Association |
| **Northwest Territories and Nunavut** | Registered Nurses Association of the Northwest Territories and Nunavut |
| **Registered nurses** | |
| **Newfoundland and Labrador** | College of Registered Nurses of Newfoundland and Labrador |
| **Prince Edward Island** | College of Registered Nurses and Midwives of Prince Edward Island |
| **Nova Scotia** | Nova Scotia College of Nursing |
| **New Brunswick** | Nurses Association of New Brunswick |
| **Quebec** | Ordre des infirmières et infirmiers du Québec |
| **Ontario** | College of Nurses of Ontario |
| **Manitoba** | College of Registered Nurses of Manitoba |
| **Saskatchewan** | College of Registered Nurses of Saskatchewan |
| **Alberta** | College and Association of Registered Nurses of Alberta |
| **British Columbia** | British Columbia College of Nurse and Midwives |
| **Yukon** | Yukon Registered Nurses Association |
| **Northwest Territories and Nunavut** | Registered Nurses Association of the Northwest Territories and Nunavut |
| **Registered psychiatric nurses*** | |
| **Manitoba** | College of Registered Psychiatric Nurses of Manitoba |
| **Saskatchewan** | Registered Psychiatric Nurses Association of Saskatchewan |
| **Alberta** | College of Registered Psychiatric Nurses of Alberta |
| **British Columbia** | British Columbia College of Nurse and Midwives |
| **Yukon** | Department of Community Services, Government of Yukon |

| Licensed practical nurses | |
|---|---|
| **Newfoundland and Labrador** | College of Licensed Practical Nurses of Newfoundland and Labrador |
| **Prince Edward Island** | College of Licensed Practical Nurses of Prince Edward Island |
| **Nova Scotia** | Nova Scotia College of Nursing |
| **New Brunswick** | Association of New Brunswick Licensed Practical Nurses |
| **Quebec** | Ordre des infirmières et infirmiers auxiliaires du Québec |
| **Ontario** | College of Nurses of Ontario |
| **Manitoba** | College of Licensed Practical Nurses of Manitoba |
| **Saskatchewan** | Saskatchewan Association of Licensed Practical Nurses |
| **Alberta** | College of Licensed Practical Nurses of Alberta |
| **British Columbia** | British Columbia College of Nurse and Midwives |
| **Yukon** | Department of Community Services, Government of Yukon |
| **Northwest Territories** | Department of Health and Social Services, Government of the Northwest Territories |
| **Nunavut** | Department of Health, Government of Nunavut |

**Note**

* Registered psychiatric nurses are currently regulated in the 4 Western provinces (Manitoba, Saskatchewan, Alberta and British Columbia) and Yukon.

**Source**

Health Workforce Database, Canadian Institute for Health Information.

# Appendix C: Text alternative for images

**Text alternative for figure:** The figure shows the flow of data from the nursing regulatory bodies to CIHI and describes the key concepts to defining the workforce. Supply is defined as regulated nurses who have a licence to practise nursing. Workforce is defined as regulated nurses who are employed in a nursing profession. The regulatory bodies submit to CIHI their registrations at the 6-month mark of their registration year, for active practicing registrations only. Non-practicing registrations are not submitted to CIHI. CIHI then excludes regulated nurses whose province/territory of registration differs from the province/territory of employment. These records are outside of the population of reference, except where one of the provinces/territories (either for registration or for employment) is a territory. Regulated nurses whose province/territory of registration is the same as the province/territory of employment — referred to as primary registrations — make up the nursing supply. CIHI looks at their employment status of these primary registrations. Regulated nurses for whom Employment Status is *employed in nursing* make up the workforce. The count of regulated nurses excluded from the workforce are those who are not reported as *employed in nursing*. An employed nurse may have a Full-Time/Part-Time Status of full time, part time, casual or unknown; all are included in the workforce.

**Source**
Health Workforce Database, Canadian Institute for Health Information.

**Text alternative for Average age image:** Average age equals numerator 1 over denominator n (defined as the total number of nurses in a province/territory or Canada) times the sum of the individual nurses' ages for the total number of n nurses; the count of individual nurses i equals 1 to n.

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