



Health Workforce in Canada, 2019 to 2023: Overview

Methodology Notes



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Health workforce information at CIHI

The Canadian Institute for Health Information (CIHI) collects and reports health workforce data to support federal, provincial and territorial workforce planning and policy development.

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

- *Health Workforce in Canada, 2019 to 2023: Overview — Data Tables*
- *Nursing in Canada, 2023* (data tables, methodology notes)
- *Health Workforce in Canada, 2023 — Quick Stats*
- *A profile of physicians in Canada, 2023* (infographic)
- *Supply, Distribution and Migration of Physicians in Canada, 2023* (data tables, historical data, methodology notes, Quick Stats)
- *National Physician Database, 2022–2023* (payments and utilization data tables, historical payments and utilization data tables, methodology notes)
- *Occupational Therapists in Canada, 2023* (data tables, methodology notes)
- *Pharmacists in Canada, 2023* (data tables, methodology notes)
- *Physiotherapists in Canada, 2023* (data tables, methodology notes)

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About this document

This document (previously known as *Canada's Health Care Providers — Methodology Notes*) summarizes important information regarding the availability and quality of the data presented in *Health Workforce in Canada, 2019 to 2023: Overview — Data Tables*. It is intended to help readers examine health workforce trends over time and make appropriate comparisons between this product and other data sources.

Data availability

Health care professional groups

Each year, CIHI collects, verifies and reports aggregated data on supply, age and sex for 34 health care professional groups in Canada (aggregate-level data). This data is added to the Health Workforce Database (HWDB). HWDB coverage may vary by professional group, by province and territory, and by year.

Each iteration of *Health Workforce in Canada: Overview* reflects the previous 5 years of data included in the HWDB. Additional years of data can be requested by emailing hwi@cihi.ca.

Table 1 Health care professional group and first year of available data

Health care professional group	First year of available data
Audiologists	2001
Chiropractors	1988
Combined laboratory and X-ray technologists	2019
Dental assistants	2011
Dental hygienists	1988
Dentists	1988
Denturists	2017
Dietitians	1988
Environmental public health professionals	1999
Genetic counsellors	2011
Health information management professionals	1988
Licensed practical nurses*	1988
Medical laboratory technologists	1988
Medical physicists	1992
Medical radiation technologists	1988
Midwives	1991
Nurse practitioners*	2003
Occupational therapists*	1988

Health care professional group	First year of available data
Opticians	2011
Optometrists	1988
Paramedics	2011
Personal support workers*	2020
Pharmacists*	1988
Pharmacy technicians	2012
Physician assistants	2013
Physicians*	1968
Physiotherapists*	1988
Psychologists	1988
Psychotherapists/counselling therapists	2021
Registered nurses*	1980
Registered psychiatric nurses*	1990
Respiratory therapists	1988
Social workers	1988
Speech–language pathologists	2001

Note

* Record-level data available.

Data collection period

CIHI attempts to capture data on the health workforce as it existed within a given calendar year (January 1 to December 31). However, each data provider follows a unique annual registration cycle, which often does not align with the calendar year. As a result, not all registrations/memberships for the respective calendar year are captured.

Data sources

The HWDB contains information on more than 30 groups of health care professionals in Canada. It provides comprehensive national and provincial/territorial portraits, including information on supply, distribution, migration, education and employment.

The HWDB includes data submitted to CIHI from several entities, including provincial and territorial regulatory bodies, professional associations and governments. For some professions, data is provided centrally by a national association. For some professions in some jurisdictions, data sources may vary from year to year.

For more information on data sources, please email hwi@cihi.ca.

Variables collected

Where possible, CIHI aims to report the most comprehensive information across each health care professional group. However, incomplete data can impact overall trends. If more than 30% of records in a province or territory have a *not stated* value (i.e., *unknown*, *not applicable*, *not collected*) for a data element, statistics based on that element are not reported.

The accompanying descriptions are used as tools to standardize aggregate-level data collection and reporting.

Table 2 Variables collected for health care professional groups

Name of variable	Description
Supply	<p>Whenever possible, CIHI encourages data providers to submit Supply data on all individuals who had an active registration in the profession and who were eligible to practise in the given year, including those employed and those not employed at the time of registration (active registered). However, active registered Supply data is not always available. In some cases, supply may reflect only individuals who were registered and employed in the specific health professions (registered active employed). In other cases, supply may include all registrants who were active, inactive, on leave or retired (registered). As a result, the number of health care professionals may be under-represented (in the former case) or over-represented (in the latter case).</p> <p>Furthermore, not all health care professional groups are regulated in all provinces and territories (refer to the appendix). In situations where a profession is unregulated in a given province or territory, supply simply refers to the number of health care professionals who had a membership with a professional association in the given year. Most often the membership with a professional association is voluntary; therefore, the number of health care professionals may be under-represented and should be interpreted with caution.</p>
Sex	<p>Provides the number of health care professionals in the supply count who indicated their sex as male, female or undifferentiated.</p> <p>Records coded as <i>unknown</i> are excluded from the calculation of percentage female.</p>
5-year age groups	<p>Presents the number of health care professionals in the supply count who fall into each 5-year age group.</p> <p>Records coded as <i>unknown</i> and records using age groups that do not align with those used by CIHI are excluded from the percentage distribution of supply count by age group (i.e., younger than 30, 30 to 59, and 60 and older).</p>
Average age	<p>Equals the sum of the ages of all registrants in the supply count for whom age is known, divided by the total number of registrants in the supply count for whom age is known.</p>

Name of variable	Description
Health care professional group-to-population ratio	<p>Calculated using the following formula:</p> <ul style="list-style-type: none"> • Numerator: Number of health care professionals in the supply count in a province/territory in the given year • Denominator: Number of people (total population) in the province/territory for which the supply was available in the same year <p>Population data is obtained each year from Statistics Canada. At CIHI's discretion, historical ratios may be updated as population data is periodically revised by Statistics Canada. Therefore, small discrepancies may exist between this publication and previous iterations.</p>

Data quality

CIHI is founded on the principles of data quality, privacy and confidentiality. Data collection, processing, analysis and dissemination are guided by CIHI's commitment to publish high-quality data in a privacy-sensitive manner. Data quality methodologies are used to maximize the accuracy, comparability, timeliness, usability and relevance of the health workforce data. Below are key factors that influence data quality in the HWDB.

Regulation status

Whether a health care profession is regulated in a province or territory has a significant impact on data collection and the completeness of the data. Regulated health care professions are governed by a legislative framework that establishes health regulatory organizations that regulate the professions in the public's interest.

All regulated health care professionals are required to register with their respective regulatory body to obtain an annual licence to practise in their province or territory. For the regulated health care professional groups, where possible, CIHI endeavours to collect data on the number of health care professionals from their respective provincial or territorial regulatory bodies.

Non-regulated health care professionals typically acquire a voluntary annual membership with their professional association. For the non-regulated health care professional groups, CIHI endeavours to collect data on the number of health care professionals who had a membership with such professional associations. Most often the membership with a professional association is voluntary; therefore, the number of non-regulated health care professionals in CIHI's HWDB may be under-represented. Data points for non-regulated health care professional groups in the data tables are identified with an asterisk, indicating that this data should be interpreted with caution.

The [appendix](#) lists the regulation status of each professional group included in *Health Workforce in Canada, 2019 to 2023: Overview — Data Tables*.

Under-coverage and over-coverage

There are a few potential sources of under-coverage:

- CIHI's collection timelines do not necessarily align with data providers' year-end data processing. As a result, the data reported may not reflect the total number of registrations for that year, because more registrations may occur after data has already been submitted to CIHI.
- When membership in a professional association is voluntary, a certain percentage of the health care professionals in that profession may not register. Therefore, the number of health care professionals may be under-represented.
- It may not be known whether the provincial or territorial legislation provides for the exclusive provision of services falling within a particular scope of practice or simply reserves the use of certain titles. If legislation protects only specific titles (e.g., registered social worker), then individuals practising under a slightly different title may not be covered by legislation. As a result, health care professionals may not be required to register as a condition of practice. Data collected within this regulatory environment would potentially under-count the number of professionals.

There are a few potential sources of over-coverage:

- Over-counting may occur for the supply of various health care professional groups in the territories, as these may include temporary or relief workers who may not permanently reside or provide services in the territories.
- CIHI aims to collect data on all active health care professionals who are registered with a regulatory body and who are eligible to practise in a given year. For the health care professional groups that are not regulated in a province or territory, CIHI collects similar data on individuals who had a membership with a professional association. However, some regulatory bodies or professional associations submit data on various registration/membership types (including inactive, on leave and retired), leading to potential over-counting of health care professionals in these jurisdictions.
- The inability to identify professionals consistently and uniquely at a national level is a barrier to integrating information across jurisdictions. National yearly totals for the same health care professional group may double-count individuals registered in more than one province or territory or in more than one profession.

Comparability over time

Historical changes or variations in data submitted across jurisdictions, professions or years have an impact on the comparability of data. CIHI, in collaboration with data providers, is continually striving to improve comparability and hence data quality. As part of the data submission process, data providers may submit changes to previous years' data for inclusion in the current year's publication.

Caution must be exercised when comparing change over time at both the provincial/territorial and national levels, as some data may have been submitted by data providers using varying supply definitions (outlined in Table 2) or collected under different regulatory environments from different data sources or at different time points during a given year.

Statistics reported in this publication may differ from those reported in other CIHI publications or by other organizations, even though the source of the data may be the same. Differences may be attributed to variations in the population of reference or the data collection period.

Note that for some groups of health care professionals, data from the Northwest Territories and Nunavut is combined because of data collection methods or because the jurisdictions share a regulator.

The table below provides information on health care professional groups that had data quality improvements or changes in data years 2019 to 2023 that may affect comparability. Any time series changes must be interpreted carefully, as they may reflect changes in the data collection and submission process.

Table 3 Data quality considerations, 2019 to 2023

Health care professional group	Province/territory	Data quality considerations
All professionals	All jurisdictions	In the data tables, an em dash (—) indicates that the data is not applicable, does not exist, is not available or is not reported due to data quality concerns.
Audiologists	Prince Edward Island, Yukon, Northwest Territories and Nunavut	2019 to 2021 data includes active and inactive registrations, whereas 2022 and 2023 data includes active registrations only. Please use caution when interpreting this data.
	Nova Scotia	In Nova Scotia, audiologists and speech–language pathologists were first regulated in November 2019. Data for 2020 and 2021 was received from the Nova Scotia College of Audiologists and Speech–Language Pathologists. Data for previous years was provided by Speech–Language & Audiology Canada. The change in regulatory status and the change in the organization providing data could contribute to fluctuations between 2018 and 2020.
	Quebec	Age groups are not reported for 2019. 2020 and 2021 data provided by the Ordre des orthophonistes et audiologistes du Québec (OOAQ) does not align with categories defined in CIHI's data tables.
	Saskatchewan	2019 data is suppressed due to data quality limitations.
Chiropractors	British Columbia	According to the College of Chiropractors of British Columbia, the decrease in the number of chiropractors belonging to the 25- to 29-year-old age group between 2019 and 2020 may be partially explained by the cancellation of the Canadian Chiropractic Examining Board exam in 2020. In the absence of provisional registration, new graduates could only retain their student status or move to another province or territory that includes provisional registration in their bylaws.
	Yukon	2020 data includes active registrations, whereas 2019 data and 2021 to 2023 data includes active and inactive registrations.

Health care professional group	Province/territory	Data quality considerations
Dental assistants	Prince Edward Island	In 2021, the Prince Edward Island Dental Council submitted data for the first time since 2013.
	New Brunswick	2019 data was obtained from the Canadian Dental Association, whereas data between 2020 and 2023 was obtained from the New Brunswick Dental Society. This change in data source may explain the fluctuation between 2019 and 2020.
	Ontario	<p>The increase in the number of dental assistants between 2019 and 2020 may be partially attributed to the counts in 2019 and in earlier years only including Level II dental assistants. Approximately 1,000 student registrants are also included in the 2020 counts.</p> <p>The decrease in the number of dental assistants between 2020 and 2021 may be partially attributed to the disbandment of the Ontario Dental Assistants Association's student program, which removed approximately 1,100 individuals from its counts between 2020 and 2021.</p> <p>According to the Ontario Dental Assistants Association, the decline in the supply of dental assistants between 2021 and 2023 is due to the lack of mandatory licensing and a shortage of trained assistants.</p>
	Saskatchewan	Data prior to 2022 was obtained from the Saskatchewan Dental Assistants' Association, whereas 2022 and 2023 data was sourced from the publicly available annual reports of the Saskatchewan Dental Assistants' Association.
	British Columbia	<p>Age Group data provided by the College of Dental Surgeons of British Columbia does not align with the age groups used by CIHI. As a result, Age Group data is not reported for 2020 and 2021.</p> <p>Data prior to 2022 was obtained from the College of Dental Surgeons of British Columbia, whereas 2022 and 2023 data was sourced from the publicly available annual reports of the British Columbia College of Oral Health Professionals. Data is as of March 31 of the following data year.</p>

Health care professional group	Province/territory	Data quality considerations
Dental hygienists	Quebec	Fluctuations in the number of dental hygienists between 2019 and 2020 may be partially attributed to the COVID-19 pandemic. The decline in the number of dental hygienists in the younger age category may be partially attributed to immediate precautionary withdrawals of pregnant dental hygienists from the workforce. Conversely, the increase in the number of dental hygienists in the older age group may be partially attributed to dental hygienists in this bracket renewing their memberships to assist with pandemic public health efforts.
	Alberta	According to the College of Dental Surgeons of Alberta (previously known as the Alberta Dental Association and College), the increase in the number of dental hygienists who are younger than age 30 between 2020 and 2021 may be partially explained by the COVID-19 pandemic. The delay in achieving graduation requirements in 2020 caused that year's cohort to postpone graduation to 2021, which led to a significant spike in 2021 dental hygienist registrations.
	British Columbia	<p>Data from 2019, 2020 and 2021 includes only active registrants.</p> <p>Data prior to 2022 was obtained from the College of Dental Surgeons of British Columbia, whereas 2022 and 2023 data was sourced from the publicly available annual reports of the British Columbia College of Oral Health Professionals. Data is as of March 31 of the following data year. Please use caution when interpreting this data.</p>

Health care professional group	Province/territory	Data quality considerations
Dentists	Newfoundland and Labrador	2023 data was obtained from the Canadian Dental Association and was as of May 2024 instead of 2023 year-end counts.
	Prince Edward Island	<p>2019 data was obtained from the Canadian Dental Association, whereas 2021 data was obtained from the Prince Edward Island Dental Council. This change in data source may partially explain the fluctuation between 2019 and 2021. Data is not available for 2020.</p> <p>2023 data was obtained from the Canadian Dental Association was as of May 2024 instead of 2023 year-end counts.</p>
	Nova Scotia	2023 data was obtained from the Canadian Dental Association was as of May 2024 instead of 2023 year-end counts.
	Quebec	According to the Ordre des dentistes du Québec, there was a higher number of members retiring in 2022, and new graduates were younger in the profession in 2023.
	Ontario	2023 data was obtained from the Canadian Dental Association and was as of May 2024 instead of 2023 year-end counts.
	Manitoba	According to the Manitoba Dental Association, fluctuations between 2019 and 2020 may be partially explained by the COVID-19 pandemic. A change in data source could also partially explain fluctuations between 2019 and 2020; counts for 2019 were provided by the Canadian Dental Association, whereas counts for 2020 and 2021 were provided by the Manitoba Dental Association.
	Saskatchewan	2019 data was provided by the Canadian Dental Association, whereas 2021 to 2023 data was provided by the College of Dental Surgeons of Saskatchewan. This change in data source may partially explain the fluctuation between 2019 and 2021. Data is not available for 2020.

Health care professional group	Province/territory	Data quality considerations
Dentists (continued)	Alberta	<p>2019 data was obtained from the Canadian Dental Association, whereas 2021 to 2023 data was obtained from the College of Dental Surgeons of Alberta (previously known as the Alberta Dental Association and College). This change in data source may partially explain the fluctuation between 2019 and 2021. Data is not available for 2020.</p> <p>2021 data includes active and inactive registrations, whereas 2022 and 2023 data includes active registrations only. This may partially explain the decrease in counts between 2021 and 2022.</p>
	British Columbia	Data prior to 2022 was obtained from the Canadian Dental Association, whereas 2022 and 2023 data was sourced from the publicly available annual reports of the British Columbia College of Oral Health Professionals. Data is as of March 31 of the following data year. Please use caution when interpreting this data.
Dietitians	Quebec	2022 and 2023 counts include both active and inactive registrants, whereas 2020 and 2021 counts include only active registrants. Data is not available for 2019. Please use caution when interpreting this data.
	Saskatchewan	2019, 2020 and 2021 data includes active registrations, whereas 2022 and 2023 data includes active and inactive registrations. Please use caution when interpreting this data.
Environmental public health professionals	All jurisdictions	As of 2022, data provided by the Canadian Institute of Public Health Inspectors is grouped into 4 specific categories: Prince Edward Island and Nova Scotia; New Brunswick and Quebec; Alberta, the Northwest Territories and Nunavut; and British Columbia and the Yukon. Please use caution when interpreting this data.
Health information management professionals (HIMs)	Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, Yukon, Northwest Territories and Nunavut	In 2020, the Canadian Health Information Management Association (CHIMA) implemented a new database; thus jurisdiction-specific demographic data was not available. Demographic data was submitted in 2021.
	Quebec	Data for 2019 to 2021 was suppressed due to data quality limitations.

Health care professional group	Province/territory	Data quality considerations
Licensed practical nurses (LPNs)	All jurisdictions	<p>Data was obtained by aggregating the record-level LPN data in the HWDB. To better ensure timeliness, CIHI collects LPN data prior to the end of the registration period, which varies among provinces and territories. The data includes all LPNs who submit an active practising registration in a Canadian province or territory in the first 6 months of the registration year.</p> <p>For more information and data limitations, please refer to Nursing in Canada, 2023 — Methodology Notes.</p>
Medical laboratory technologists (MLTs)	Nova Scotia	2022 data broken down by Age group was suppressed due to data quality issues.
	Quebec	2021 data was received from the Ordre professionnel des technologistes médicaux du Québec. Data from 2020 and 2021 includes only active registrations, whereas 2019, 2022 and 2023 data includes both active and inactive registrations. These changes may partially contribute to fluctuations seen between years.
	Ontario	2019, 2020 and 2021 data includes active and inactive registrations, whereas 2022 and 2023 data includes only active registrations.
	Alberta	<p>2019, 2020 and 2021 data was sourced from the College of Medical Laboratory Technologists of Alberta's publicly available annual reports.</p> <p>In 2023, the College of Medical Laboratory Technologists of Alberta submitted data for 2019 to 2023.</p>
	British Columbia	2023 data broken down by Age group was suppressed due to data quality issues.
	Nunavut	2022 and 2023 data was suppressed due to data quality limitations.

Health care professional group	Province/territory	Data quality considerations
Medical radiation technologists (MRTs)	Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Manitoba, British Columbia, Yukon, Northwest Territories and Nunavut	Data for these jurisdictions was received from the Canadian Association of Medical Radiation Technologists (CAMRT). The increase in the number of MRTs for whom a sex was not stated increased between 2019 and 2020 because the CAMRT stopped tracking this information. As of 2020, members can no longer select a sex in their CAMRT profile. The number of registrants with an unidentified sex is therefore expected to increase.
	Nova Scotia	2019, 2020 and 2023 data was provided by the Canadian Association of Medical Radiation Technologists (CAMRT), whereas 2021 data was provided by the Nova Scotia College of Medical Imaging and Radiation Therapy Professionals (NSCMIRTP). This change in data source may partially explain the fluctuation between 2020 and 2021. Data is not available for 2022. In 2021, NSCMIRTP started regulating sonographers. This change may partially explain the increase in the number of MRTs between 2020 and 2021. 143 sonographers were added to the MRT supply count in 2021.
	Quebec	2020, 2022 and 2023 data includes active and inactive registrations, whereas 2019 and 2021 data includes active registrations only. Fluctuations in the number of MRTs may be partially explained by a change in reported registration types.
	Ontario	Since January 1, 2018, the College of Medical Radiation Technologists of Ontario (CMRTO) has regulated diagnostic medical sonography as a fifth specialty in addition to the previous 4 specialties of magnetic resonance imaging, nuclear medicine, radiation therapy and radiological technology. In 2019, 3,904 sonographers were added to the MRT supply count; in 2020, 3,926 sonographers were added; in 2021, 4,014 sonographers were added; in 2022, 4,129 sonographers were added; and in 2023, 4,317 sonographers were added.
	Yukon	2023 Gender data is suppressed due to data quality limitations.

Health care professional group	Province/territory	Data quality considerations
Midwives	Manitoba	<p>The change in the number of midwives in Manitoba may be partially attributed to changes in registration type and data source.</p> <p>Data from 2020, 2022 and 2023 represents the number of all registered midwives (includes active, inactive, on-leave and retired registration status); 2019 and 2021 data represents active registered midwives (includes those who were eligible to practise in the given year, including those employed and those not employed at the time of registration).</p> <p>2019, 2021, 2022 and 2023 data was provided by the College of Midwives of Manitoba, whereas 2020 data was provided by the Canadian Midwifery Regulators Council.</p>
	Yukon	The regulations for midwifery came into effect in April 2021.
Nurse practitioners (NPs)	All jurisdictions	<p>Data was obtained by aggregating the record-level NP data in the HWDB. To better ensure timeliness, CIHI collects NP data prior to the end of the registration period, which varies among provinces and territories. The data includes all NPs who submit an active practising registration in a Canadian province or territory in the first 6 months of the registration year. In the HWDB, the count of NPs includes the supply, defined as regulated nurses who have a licence to practise nursing. NPs who register between the cut-off date and the end of the registration period are not included in the HWDB.</p> <p>For more information and data limitations, please refer to Nursing in Canada, 2023 — Methodology Notes.</p>
	Northwest Territories and Nunavut	NPs and registered nurses (RNs) in the Northwest Territories and Nunavut are governed by the same regulatory authority. As a result, NP and RN totals represent the combined total for these 2 territories.

Health care professional group	Province/territory	Data quality considerations
Occupational therapists (OTs)	All jurisdictions	<p>Data was obtained by aggregating the record-level OT data in the HWDB. In the HWDB, CIHI collects OT data prior to the end of the registration period, which varies among provinces and territories. The data includes all OTs who submit an active registration form in a Canadian province or territory as of October 1 of a given year. The count of OTs includes the supply, defined as all registrants who were eligible to practise in the given year (including those employed and those not employed at the time of registration). OTs who register between the cut-off date and the end of the registration period are not included in the HWDB.</p> <p>For more information and data limitations, please refer to Occupational Therapists in Canada, 2023 — Methodology Notes.</p>
Opticians	Prince Edward Island, New Brunswick, Ontario and British Columbia	2022 and 2023 data broken down by Age group is suppressed due to data quality limitations.
	Quebec	2021, 2022 and 2023 data was provided by the Ordre des optométristes du Québec, whereas 2019 data was provided by the Opticians Association of Canada. Please use caution when interpreting this data.
	Saskatchewan	2023 Age data is suppressed due to data quality limitations.
	Alberta	2022 Age data and 2023 data is suppressed due to data quality limitations.
Optometrists	All provinces	2019 to 2021 data includes only active registrations, whereas 2022 and 2023 data includes both active and inactive registrations.

Health care professional group	Province/territory	Data quality considerations
Paramedics	Prince Edward Island	<p>Data from 2019 is not available.</p> <p>The EMS Board of PEI transitioned to the College of Paramedicine of Prince Edward Island on April 1, 2024.</p> <p>With CIHI's temporary pause of 2022 data collection and the timing of the 2-year paramedic regulation cycle (2021 to 2023), 2022 data is not complete. Please use caution when interpreting this data.</p>
	Nova Scotia	<p>In 2023, there was an increase in Age group 20 to 24. According to the Government of Nova Scotia, the Emergency Health Services branch is funding education of registrants (since 2023). Registrants, including paramedics and emergency medical responders, can obtain free tuition with a local employer's agreement.</p>
	Ontario	<p>As of 2023, the Ontario Ministry of Health does not collect Sex and Age data. As a result, data broken down by Age group and Sex is not available.</p>
	Manitoba	<p>The College of Paramedics of Manitoba was established by the Government of Manitoba on June 1, 2018, and became fully operational on December 1, 2020, following changes to regulations. Data for 2020 was not submitted.</p> <p>2019 data may include double counting of licences; therefore, data should be interpreted with caution.</p> <p>A significant decrease in 2021 registrants from 2019 may be partially attributed to the change in regulatory authority to the College of Paramedics of Manitoba, which now requires a fee to hold a certificate of practice.</p> <p>According to the College of Paramedics of Manitoba, the fluctuation in 2022 and 2023 data may be due to changes in education criteria and extended program lengths, slowing the entry of new students to the profession.</p>
	Saskatchewan	<p>2019 and 2021 data was provided by the Saskatchewan College of Paramedics and includes only active registrations, whereas 2020, 2022 and 2023 data was sourced from the publicly available annual reports of the Saskatchewan College of Paramedics and includes both active and inactive registrations.</p>

Health care professional group	Province/territory	Data quality considerations
Personal support workers (PSWs)	Alberta	<p>Data was obtained by aggregating the record-level PSW data in the HWDB. The count includes all PSWs who are listed in the Alberta Health Care Aide Directory at the time the data is submitted, based on the following criteria:</p> <ul style="list-style-type: none"> • Active: Registration was active for the reported year; eligible to practise in the given year in the public and/or private sector, regardless of whether they are employed. • Inactive: Registration was not active in the directory for the reported year (but was active in the previous enrolment year); not eligible to practise in the public sector. These inactive PSWs may or may not be employed in the private sector or have transitioned to another profession (e.g., nursing). <p>For more information and data limitations, please refer to Personal Support Workers in Alberta, 2023 — Methodology Notes.</p>
Pharmacists	All jurisdictions	<p>Data was obtained by aggregating the record-level pharmacist data in the HWDB. CIHI collects pharmacist data prior to the end of the registration period, which varies among provinces and territories. The data includes all pharmacists who submit an active registration form in a Canadian province or territory as of October 1 of a given year.</p> <p>For more information and data limitations, please refer to Pharmacists in Canada, 2023 — Methodology Notes.</p>

Health care professional group	Province/territory	Data quality considerations
Pharmacy technicians	All provinces	Data was sourced from the publicly available annual reports of the National Association of Pharmacy Regulatory Authorities.
	Manitoba	<p>The 2019 increase in Manitoba pharmacy technicians may be due to individuals entering the profession who have completed the Pharmacy Examining Board of Canada Evaluating Exam and the National Association of Pharmacy Regulatory Authorities National Pharmacy Technician Bridging Program. As of December 31, 2019, this pathway is no longer available and new applicants are required to have graduated from an accredited pharmacy technician education program.</p> <p>Pharmacy technicians in Manitoba are regulated by the College of Pharmacists of Manitoba. However, they are listed as regulated pharmacy technicians but not licensed. Their number is thus not reflected in the total number of licensed pharmacy technicians practising in Canada and is provided for information purposes only.</p>
Physicians	All jurisdictions	<p>Data was obtained by aggregating the record-level physician supply data in Scott's Medical Database. The count of physicians includes active physicians in clinical and non-clinical practice (e.g., research, academia) who have an MD degree and a valid mailing address. It excludes residents, physicians in the military, semi-retired and retired physicians as well as physicians who requested that their information not be published as of December 31 of the reference year.</p> <p>Under-coverage may occur for the supply of physicians in the territories, as it includes only those physicians who reside in the territories.</p> <p>For those physicians for whom date of birth was not available, ages were calculated using year of MD graduation, with age at MD graduation equal to 25 years. Where age is greater than 90, this analysis mapped it to <i>unknown</i>.</p> <p>For more information, please refer to Supply, Distribution and Migration of Physicians in Canada, 2023 — Methodology Notes.</p>

Health care professional group	Province/territory	Data quality considerations
Physiotherapists (PTs)	All jurisdictions	<p>Data was obtained by aggregating the record-level PT data in the HWDB. CIHI collects PT data prior to the end of the registration period, which varies among provinces and territories. The data includes all PTs who submit an active registration form in a Canadian province or territory as of September 1 of a given year.</p> <p>For more information and data limitations, please refer to Physiotherapists in Canada, 2023 — Methodology Notes.</p>
	Quebec	<p>In Quebec, there are 2 types of physiotherapy professionals: PTs and physiotherapy technologists (Phys. T.). Physiotherapy technologists are not included in Quebec's PT data. At the end of 2023–2024, there were 3,183 physiotherapy technologists registered with the Ordre professionnel de la physiothérapie du Québec (OPPQ).</p>
Psychologists	New Brunswick	<p>2019 to 2022 data includes only active registrations, whereas 2023 data includes both active and inactive registrations. Please use caution when interpreting this data.</p> <p>2023 data broken down by Sex was suppressed due to data quality limitations.</p>
	British Columbia	<p>2019 to 2021 data includes only active registrations, whereas 2022 and 2023 data includes both active and inactive registrations. Please use caution when interpreting this data.</p>
Psychotherapists/ counselling therapists	Prince Edward Island	<p>2022 and 2023 data includes provisional registrants: 5 provisional registrants in 2022 and 8 in 2023.</p> <p>In 2022, the increase in the supply was due to counselling therapists working in the school system becoming registered.</p> <p>In 2023, the increase in the supply was due to new graduates and professionals moving to Prince Edward Island.</p>
	Nova Scotia	<p>Psychotherapists/counselling therapists are regulated in Nova Scotia; however, data was not available at the time of publication.</p>

Health care professional group	Province/territory	Data quality considerations
Psychotherapists/ counselling therapists (continued)	Ontario	According to the College of Registered Psychotherapists of Ontario, the increase in younger registrants in 2022 and 2023 is due to the end of the grandparenting route in March 2017, which led to more younger applicants through the regular route. Additionally, public awareness of psychotherapy has grown, partly due to the pandemic and the rising demand for mental health services. More educational programs in psychotherapy are also attracting graduate-level students.
Registered nurses (RNs)	All jurisdictions	Data was obtained by aggregating the record-level RN data in the HWDB. To better ensure timeliness, CIHI collects RN data prior to the end of the registration period, which varies among provinces and territories. The data includes all RNs who submit an active practising registration in a Canadian province or territory in the first 6 months of the registration year. For more information and data limitations, please refer to Nursing in Canada, 2023 — Methodology Notes .
	Northwest Territories and Nunavut	NPs and RNs in the Northwest Territories and Nunavut are governed by the same regulatory authority. As a result, NP and RN totals represent the combined total for these 2 territories.
Registered psychiatric nurses (RPNs)	All jurisdictions	Data was obtained by aggregating the record-level RPN data in the HWDB. To better ensure timeliness, CIHI collects RPN data prior to the end of the registration period, which varies among provinces and territories. The data includes all RPNs who submit an active practising registration in a Canadian province or territory in the first 6 months of the registration year. For more information and data limitations, please refer to Nursing in Canada, 2023 — Methodology Notes .

Health care professional group	Province/territory	Data quality considerations
Respiratory therapists	Prince Edward Island, British Columbia, Yukon, Northwest Territories and Nunavut	2019 to 2021 data includes active and inactive registrations, whereas 2022 and 2023 data includes only active registrations. Please use caution when interpreting this data.
	Nova Scotia	2019, 2022 and 2023 data includes active and inactive registrations, whereas 2020 and 2021 data includes active registrations only. Please use caution when interpreting this data.
	Quebec	<p>Fluctuations in the number of respiratory therapists in Quebec may be partially attributed to changes in registration type for the Quebec Supply data. Data for 2019 includes all registered respiratory therapists, both active and inactive. Data between 2020 and 2023 includes only active registered respiratory therapists.</p> <p>According to the Ordre professionnel des inhalothérapeutes du Québec, in 2022, there was a decrease in admissions and — due to the COVID-19 pandemic — some retirees returned to help with vaccination efforts.</p>
Social workers	Quebec	2019 to 2021 data includes both active and inactive registrations, whereas 2022 and 2023 data includes only active registrations. Please use caution when interpreting this data.
	Ontario	Data prior to 2022 was obtained from the Ontario College of Social Workers and Social Service Workers, whereas 2022 and 2023 data was sourced from the publicly available annual reports of the Ontario College of Social Workers and Social Service Workers.
	Manitoba	2023 Gender data is suppressed due to data quality limitations.
	Alberta	2022 and 2023 data includes both active and inactive registrations, whereas 2019 to 2021 data includes only active registrations.
	British Columbia	2020 data includes active and inactive registrations. 2019 and 2021 data is not available.

Health care professional group	Province/territory	Data quality considerations
Speech–language pathologists (SLPs)	Prince Edward Island, Yukon, Northwest Territories and Nunavut	2019 to 2021 data includes active and inactive registrations, whereas 2022 and 2023 data includes active registrations only. Please use caution when interpreting this data.
	Nova Scotia	In Nova Scotia, audiologists and speech–language pathologists were first regulated in November 2019. Data for 2020 and 2021 was received from the Nova Scotia College of Audiologists and Speech–Language Pathologists. Data for previous years was provided by Speech–Language & Audiology Canada. The change in regulatory status and the change in the organization providing data could contribute to fluctuations between 2018 and 2020.
	Quebec	Age groups are not reported for 2019. 2020 and 2021 data provided by the Ordre des orthophonistes et audiologistes du Québec (OOAQ) does not align with categories defined in CIHI's data tables.
	Saskatchewan	2019 data is suppressed due to data quality limitations.

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*. A copy of this document is available free for download from [CIHI's website](#).

The HWDB does not collect, use or disclose personal information. In keeping with Section 32 of the *Health Workforce Privacy Policy, 2011*, CIHI publicly reports information only when the risk of identifying and residually disclosing personal information is low (i.e., reports in which small cell sizes are suppressed).

Appendix: Health care professionals, first year of regulation, by province and territory, 2023

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.
Audiologists	2013	2023	2019	1987	1964	1994	1961	1992	2002	2010	n/r	n/r	n/r
Chiropractors	1992	1962	1972	1958	1974	1925	1945	1943	1923	1934	1986	n/r	n/r
Combined laboratory and X-ray technologists	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	2005	n/r	n/r	n/r	n/r
Dental assistants	1995	1998	1976	1987	n/r	n/r	2007	1971	1990	1968	n/r	n/r	n/r
Dental hygienists	1969	1974	1973	2009	1975	1993	2005	1951	1990	1952	1958	1990	1999
Dentists	1893	1891	1891	1890	1869	1867	1883	1906	1906	1886	1958	1988	1999
Denturists	1984	2003	1973	1976	1973	1972	1970	1977	1961	1962	1984	1990	1990
Dietitians	1965	1994	1998	1988	1956	1994	1982	1958	2000	2004	n/r	n/r	n/r
Environmental public health professionals	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r
Genetic counsellors	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r
Health information management professionals	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r
Licensed practical nurses	1983	1959	1957	1960	1974	1947	1946	1956	1986	1988	1987	1988	2011
Medical laboratory technologists	2012	2021	2004	1992	1973	1994	2007	1996	2002	n/r	n/r	n/r	n/r
Medical physicists	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r
Medical radiation technologists	n/r	2021	1967	1958	1973	1980	n/r	1978	1986	n/r	n/r	n/r	n/r
Midwives	2016	2022	2009	2016	1999	1994	2000	2008	1998	1998	2021	2005	2011
Nurse practitioners	1997	2006	2002	2002	2003	1997	2005	2003	2002	2005	2013	2004	2004

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.
Occupational therapists	1987	1976	1972	1997	1973	1993	1971	1971	1990	2000	n/r	n/r	n/r
Opticians	1982	1974	2005	1976	1973	1991	1953	2011	1965	2010	n/r	n/r	n/r
Optometrists	1928	1922	1921	1921	1909	1919	1909	1911	1920	1921	1959	1988	1999
Paramedics	2010	2013	2015	2006	2015	1990	2018	2009	2008	1974	n/r	n/r	n/r
Personal support workers	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r
Pharmacists	1910	1905	1876	1884	1875	1871	1878	1911	1911	1891	1986	1953	1999
Pharmacy technicians	2012	2014	2011	2015	n/r	2010	2014	2015	2011	2011	n/r	n/r	n/r
Physician assistants	n/r	n/r	n/r	2009	n/r	n/r	1999	2023	2016	n/r	n/r	n/r	n/r
Physicians	1893	1871	1828	1816	1848	1795	1871	1885	1885	1867	1958	1885	1999
Physiotherapists	1970	1973	1959	1960	1973	1953	1956	1945	1985	1946	2007	n/r	n/r
Psychologists	1988	1991	1981	1967	1962	1960	1966	1997	1960	1977	n/r	1988	1999
Psychotherapists/ counselling therapists	n/r	2021	2011	2017	2012	2007	n/r	n/r	n/r	n/r	n/r	n/r	n/r
Registered nurses	1954	1949	1910	1916	1946	1922	1913	1967	1916	1918	1994	1973	1999
Registered psychiatric nurses	n/a	n/a	n/a	n/a	n/a	n/a	1960	1948	1955	1951	2009	n/a	n/a
Respiratory therapists	2012	2021	2007	2009	1985	1991	1981	2008	1988	n/r	n/r	n/r	n/r
Social workers	1994	1988	1994	1989	1960	2000	2009	1995	2003	2008	n/r	2012	n/r
Speech–language pathologists	2013	n/r	2019	1987	1964	1994	1961	1992	2002	2010	n/r	n/r	n/r

Notes

n/r: Not regulated.

n/a: Not applicable.

Source

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