



Canada's Health Care Providers, 2015 to 2019

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 and to assist decision-makers in the planning and distribution of the health workforce. CIHI collects and reports data on 30 groups of health care providers in Canada.

For 8 of these provider groups, data is available at the record level; for the other 22, data is available at the aggregate level. Data includes geographic distribution, demographic, education, employment and practice characteristics of health care providers and demographics.

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

- [Canada's Health Care Providers, 2015 to 2019 — Data Tables](#)
- [Nursing in Canada, 2019](#) (report, Quick Stats, data tables, infographic, chartbook, methodology notes)
- [Physicians in Canada, 2019](#) (report, data visualization, data tables, historical data, methodology notes, Quick Stats)
- [Occupational Therapists in Canada, 2019](#) (data tables, data visualization, methodology notes)
- [Pharmacists in Canada, 2019](#) (data tables, data visualization, methodology notes)
- [Physiotherapists in Canada, 2019](#) (data tables, data visualization, methodology notes)

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About this document

7 K L V G R F X P H Q W V X P P D U L J H V W K H E D V L F F R Q F H S W V G D W D V R X
and limitations of the data available in Canada's Health Care Providers, 2015 to 2019 —
Data Tables. It helps readers better understand the health workforce data presented
in the data tables, compare with other data sources and look at trends over time.

Data availability

Health care provider groups

CIHI's Health Workforce Database (HWDB) collects data for 30 health care provider groups in Canada. Longitudinal trends for some health care provider groups are available since 1988, although data availability may vary by province and territory and by year.

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

Health care provider group	First year of available data
Audiologists	1991
Chiropractors	1988
Dental assistants	2011
Dental hygienists	1988
Dentists	1988
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
Opticians	2011
Optometrists	1988

Variables collected

Where possible, CIHI aims to report the most comprehensive information across each health care provider 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 data collection and reporting.

Table 2 Variables collected for health care provider groups

Name of variable	Description
Supply	Number of all active members registered with a regulatory body who were eligible to practise in the given year. This includes those employed and those not employed at the time of registration. , Q V R P H F D.80ion.

care providers in CIHI's HWDB may be under-represented. Data points for non-regulated
KHDOWK FDUH SURYLGHU JURXSV LQ WKH GDWD WDEOHV DUH L
this data should be interpreted with caution.

[The appendix](#) OLVWV WKH ¿UVW \HDU RI UHJXODWLRQ DQG LGHQWL¿H
by jurisdiction, for the 30 groups of health care providers that CIHI collects data on.

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
SURFHVV LQJ \$V D UHVXOW WKH GDWD UHSRUWHG PD\ QRW U
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 providers in that profession may not register. Therefore, the number of health
care providers 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
RI FHUWDLQ WLWOHV ,I OHJLVODWLRQ SURWHFWV RQO\ VSHF
WKHQ LQG LYLGXDOV SUDFWLV LQJ XQG HU D VOLJKWO\ GL¿HUH
As a result, health care providers may not be required to register as a condition of practice.
Data collected within this regulatory environment would potentially under-count the number
of providers.

There are a few potential sources of over-coverage:

- Possible over-counting may occur for the supply of various health care provider groups in

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

Health care provider group	Province/territory	Data quality considerations
Health information management professionals (HIMs)	Quebec	Quebec data is provided by the Association des gestionnaires de l'information de la santé du Québec (AGISQ). Remaining data is provided by the Canadian Health Information Management Association (CHIMA).
	Northwest Territories and Nunavut	2016 data reported for the Northwest Territories and Nunavut represents the total for those 2 territories.
Licensed practical nurses (LPNs)	Quebec	In 2015, a new entry-to-practice exam was implemented. This exam contributed to a decline in new registrants since 2015.
	Alberta	The LPN supply in Alberta increased between 2017 and 2018. According to the College of Licensed Practical Nurses of Alberta (CLPNA), this increase is due to the implementation of a new database and an increase in membership. The CLPNA is working to rectify these issues for 2019.
Medical laboratory technologists (MLTs)	Nova Scotia	Nova Scotia data is suppressed due to data quality issues.
	Northwest Territories and Nunavut	2016 data reported for the Northwest Territories and Nunavut represents the total for those 2 territories.
Medical radiation technologists (MRTs)	Ontario	As of January 1, 2018, the College of Medical Radiation Technologists of Ontario (CMRTO) was given the authority to regulate in addition to the previous 4 specialties of magnetic resonance imaging, nuclear medicine, radiation therapy and radiological technology. The increased number of MRTs in Ontario in 2018 is a result of adding diagnostic medical sonographers.
	Northwest Territories and Nunavut	2016 data reported for the Northwest Territories and Nunavut represents the total for those 2 territories.
Midwives	Manitoba	The change in the number of midwives in Manitoba may be partially attributed to changes in registration type for the supply data. Data from 2015, 2016 and 2019 represents the number of registered practising midwives, data for 2017 represents the number of all registered midwives (includes active, inactive, on-leave and retired registration status) and 2018 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).
	Northwest Territories and Nunavut	2015 and 2016 data reported for the Northwest Territories and Nunavut represents the total for those 2 territories. 2018 data for midwives in Nunavut may include midwives working in casual and/or contract positions.

Health care provider group	Province/territory	Data quality considerations
Nurse practitioners (NPs)	Quebec	<p>The number of NPs in Quebec increased over the past \H DU V \$ FFRUGLQJ WR WKH 2UGUH GHV LQ ¿ U F du Québec (OIIQ), the growth among NPs in Quebec is primarily a result of the implementation of NP legislation L Q 6 L Q F H W K D W W L P H W K H P L Q L V W q U H G F Services sociaux du Québec (MSSS) has introduced a workforce strategy with a goal of 2,000 NPs in Quebec by the year 2025. As a result, universities in Quebec, in collaboration with other partners, are increasing enrolment in NP programs.</p>
	Northwest Territories and Nunavut	<p>The number of NPs in the Northwest Territories decreased between 2017 and 2018. The decline in the number of NPs is attributed to the nature of the work in the Northwest Territories.</p> <p>Data for NPs and RNs is presented as a combined total throughout the data tables. NPs and RNs in these territories are governed by the same regulatory authority; because L Q I R U P D W L R Q D E R X W W K H V S H F L ¿ F W H U U L W R U 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. As a result, regulated nursing statistics cannot be calculated for the Northwest Territories and Nunavut.</p>
Optometrists	Northwest Territories and Nunavut	2015 and 2016 data reported for the Northwest Territories and Nunavut represents the total for those 2 territories.
Paramedics	Prince Edward Island	

Health care provider group		



Appendix: Health care providers, first year of regulation, by province and territory, 2019

Health care provider 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	n/r	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
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
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	n/r	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	n/r	1967	1958	1973	1980	n/r	1978	1986	n/r	n/r	n/r	n/r
Midwives	2016	n/r	2009	2016	1999	1994	2000	2008	1998	1998	n/r	2005	2011
Nurse practitioners	1997	2006	2002	2002	2003	1997	2005	2003	2002	2005	2013	2004	2004
Occupational therapists	1987	1971	1988	1987	1987	1987	1987	1987	1987	1987	1987	1987	1987

Health care provider group	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nun.
Paramedics	2010	2013	2015	2006	2015	1990	2018	2009	2008	1974	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	n/r	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
Registered nurses	1954	1949	1910	1916	1946	1922	1913	1967	1916	1918	1994	1973	1999
Registered psychiatric nurses	n/a												

