



Table of contents

About CIHI's occupational therapist data	4
About this document	5
Data availability	5
Data collection	5
Population of interest	6
H@LQJWKHZRUNIRUFH	6
Data quality	7
Under- and over-coverage	7
Terminology and general methodology	8
Average age	9
Occupational therapists employed in direct care	9
Health regions and peer groups	9
,QRZDQBXWRZ	10
Population estimates and per 100,000 population counts	10
Urban and rural/remote	11
Comparability	12
International comparability	12
Data limitations and considerations	13
3ULYDFDQGRQEQWLDOLW\	16
Appendices	17
SSHQDFFXSDWLRQDOWKHUJSLVWV\JVVHJURIUHJXODWLRQESURYLQFHDQW\HUULWRU\	17
Appendix B: Occupational therapist data providers, 2022	17
Appendix C: Text alternative for average age image	17
References	18

About CIHI's occupational therapist data

Collecting and reporting health workforce data assists decision-makers in the planning and distribution of health care professionals. Since 2006, the Canadian Institute for Health Information (CIHI) has collected data on the supply, distribution and practice characteristics of occupational therapists in Canada.

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

- *Occupational Therapists in Canada, 2022 — Data Tables* (XLSX)
 - *Health Workforce in Canada, 2021 — Quick Stats* (XLSX)
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Population of interest

The population of interest includes all OTs who submit an active registration form in a Canadian province or territory.

To better ensure timeliness, CIHI collects data prior to the end of the registration period, of the registrations have been received for the registration period.

Defining the workforce

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 / 75 th77 7534DMC/PA Lang(en-US354.3255)TJETE(W0 24o

The total number of registrations submitted to an occupational therapy regulatory authority is composed of both active and inactive registration types. Of all the registrations received by the occupational therapy regulatory authority, only those that are active as of October 1

There are 2 types of active registrations:

- 3ULPDUUHJLVWUDWLRQV%R%DUHWKRVHZKHUHWKHSURYLQFHRIUHJLVWUDWLRQUHAFW the registrant's primary jurisdiction of practice.
- Secondary registrations (Box B2) represent OTs who work in more than one jurisdiction concurrently and are registered by the proper authorities. This prevents the double-counting RIVRPH27/ZKRUHJLVWHULQPRUHWKDQRQHMXULVGFWLRQ7KHPHWKRBORJWKDWLWLBQWLW primary and secondary registrations is explained in detail in the [Data quality](#) section of this report.

CIHI workforce statistics include only primary registrations where registrants explicitly state their employment status in occupational therapy via one of the following data element values: *employed in occupational therapy* (Box C1) or *employed in occupational therapy, on leave* (Box C2). OTs who are employed outside of occupational therapy, who are unemployed or whose employment status is unknown are excluded from workforce statistics (the corresponding data element values are *unemployed and seeking employment in occupational therapy*, Box C3; *unemployed and not seeking employment in occupational therapy*, Box C4; and *unknown*, Box C5).

Data quality

Under- and over-coverage

There are a few potential sources of under-coverage:

- Registration period versus data collection period: : K L O H V H W W L Q J F X W R ‡ G D W H & , + , W R U H O H D V H P R U H W L P H O \ G D W D 2 7 V Z K R U H J L V W H U E H of the registration period are not included in the Health Workforce Database (HWDB).
- First-time registrants: These include new graduates as well as OTs who are registering LQDSURYLQFHRIUHJLVWUDWLRQV%R%DUHWKRVHZKHUHWKHSURYLQFHRIUHJLVWUDWLRQUHAFW varied across provinces and territories and over time, which has resulted in cases of under-coverage.
- Voluntary registration data: In the territories, where there is no regulatory body for OTs, the CAOT submits membership registration data to CIHI. Membership registration with a national association is often voluntary; data received from the CAOT is therefore under-covered.

There are a few potential sources of over-coverage:

- Duplicate and out-of-scope records: Over-coverage occurs when duplicate records appear in the HWDB or when out-of-scope records (i.e., inactive registrants) are included.
- OTs on leave: OTs who are employed in their profession and on leave are included in the population of interest. At the time of registration, these OTs may state that they are employed in their profession but are taking leave during some of the rest of the registration period. Examples of leave are maternity and paternity leave, family leave, education leave and leave for short-term illness or injury. While potential over-coverage may exist, the assumption is that OTs on temporary leave who register as being employed in their profession and who provide full employment information (when possible) intend to return to that position when the temporary leave ends.
- Secondary registrations: OTs can choose to register simultaneously in multiple provinces reporting supply or workforce information. These are known as secondary registrations. However, OTs who register in multiple provinces or territories and also work in more than one province or territory are included more than once in “Provinces/territories with available data” totals.
- 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 jurisdiction, return-to-practice data may already be included in the supply totals.

Terminology and general methodology

Throughout the HWDB 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 OTs.
- 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 *renewal* refers to the number of registrants who renewed their registration in the same province or territory as the one they were registered in the year before.

Average age

The average age of OTs in a given province or territory and/or in Canada is calculated based on the age of the individual OT, which is derived from the data elements Year of Birth and the Current Data Year for each record. Records with missing age are excluded from the calculation.

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

Where

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

Occupational therapists employed in direct care

The term “employed in direct care” refers to only those registrants who provided services directly to clients. Direct care includes those whose Area of Practice focuses on the *neurological system, musculoskeletal system, cardiovascular and respiratory system* or *digestive/metabolic/endocrine system* or whose Area of Practice is in *mental health, general physical health, vocational rehabilitation, palliative care, health promotion and wellness* or *other area of direct service*.

Health regions and peer groups

+ HDOWK UHJLRQV DUH GH¿QHG E\ WKH SURYLRQLDO DQG WHUU administrative bodies or areas of interest to health authorities.

The health region data presented in the *Occupational Therapists in Canada, 2022* analyses and products includes OTs 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 Conversion File (PCCF) are used to assign health care professionals to health regions. The Postal Code of Primary Employment is used to conduct this analysis. If the postal code is unknown or invalid, the health region cannot be determined.

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).

In order to facilitate comparisons among health regions, Statistics Canada developed a methodology that groups health regions with similar socio-economic and socio-demographic characteristics; these are referred to as peer groups. The [health region peer groups defined by Statistics Canada](#) in *Occupational Therapists in Canada, 2022 — Data Tables*.

Inflow and outflow

The term *inflow* refers to the number of OTs who register to practise in a province or territory in which the OT did not register previously, including 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 OTs who do not renew their registration in a province or territory in which they are currently registered, including those who return to the workforce after extended leave (such as for family responsibilities or further education).

The term *net change* refers to the difference between the number of OTs who register to practise in a province or territory in which the OT did not register previously and the number of OTs who do not renew their registration in a province or territory in which they are currently registered. For those OTs who are late in their careers, not renewing their registration may be a signal that they have retired. For OTs who are in the early stages of their careers, reasons for not renewing registration could include choosing an employment opportunity in another province or territory, taking on family responsibilities, or returning to school for additional education.

The term *total supply* refers to the total number of OTs who are registered to practise in a province or territory in which the OT is currently registered.

Urban and rural/remote

A postal code analysis is performed to determine whether a health care professional is practising in an urban or a rural/remote setting.²⁻⁴ For OTs, the Postal Code of Primary Employment is used to conduct this analysis. If the postal code is unknown or invalid, the urban or rural/remote setting cannot be determined.

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6&VXUEDQRUUXUDOUHPRWH8UEDQDUHDVVDUHD8QH0CSDUWE6WDWLWVLFV&DQDQ
as communities with populations greater than 10,000 people; rural/remote is equated with

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 and territories.

All provinces and territories submitted OT data to CIHI in 2022.

International comparability

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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*.⁵
&, † U H O H D V H L V I R F X V H B Q L Q G F D W R U V L B Q W L H G Q R B O H \$ W L Y H K H D O W K Z R U N I R U F H V W R F N

The table below highlights the OT component of the 8 indicators included in CIHI's *Occupational Therapists 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.

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WHO indicator	Corresponding table iOccupational Therapists in Canada, 2022 — Data Tables
1 – 02: Density of active health workers per 1000 population, by cadre 1 – 03: Density of active health workers per 1000 population by cadre and at subnational level	Table 4: Occupational therapist workforce employed in direct care per 100,000 population, by jurisdiction, provinces/territories with available data, 2013 to 2022
1 – 04: Density of health workers per 1000 population, by cadre, by activity level (practising, professionally active, licensed to practice)	Table 5: Occupational therapist supply, by employment status, per 100,000 population, provinces/territories with available data, 2013 to 2022
1 – 05: Ratio between active and registered health workers, by cadre	Table 6: Ratio of occupational therapist workforce employed in direct care to supply, provinces/territories with available data, 2013 to 2022
1 – 07: Percentage of active health workers L Q G L † H U H Q W D J H J U R X S V	Table 7: Occupational therapist 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 8: Occupational therapist workforce employed in direct care, by top 10 countries of graduation, provinces/territories with available data, 2013 to 2022
1 – 11: Percentage of active health workers employed by facility type, by cadre	Table 9: Occupational therapist workforce employed in direct care, by place of employment, provinces/territories with available data, 2013 to 2022
1 – 12: Density of active health workers L Q G L † H U H Q W U H J L R Q V E \ U	Table 10: Occupational therapist 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 L Q G L † H U H Q W U H J L R Q V E \ U	Table 11: Occupational therapist 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. 2016.

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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 have an impact on comparability.

If more than 30% of records in a province/territory have a *not stated*





Appendices

Appendix A: Occupational therapists, first year of regulation, by province and territory



References

Canadian Association of Occupational Therapists. [What is occupational therapy?](#). Accessed June 26, 2023.

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