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Our Mandate
To lead the development and maintenance of comprehensive and integrated health information that enables sound policy and effective health system management that improve health and health care.

Our Values
Respect, Integrity, Collaboration, Excellence, Innovation
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Key Findings

Regulated Nurses, 2014 highlights current trends in nursing practice across a variety of supply, employment and demographic characteristics. This report highlights data for the 3 groups of regulated nursing professionals in Canada: registered nurses (RNs, including nurse practitioners, or NPs), licensed practical nurses (LPNs) and registered psychiatric nurses (RPNs).

Supply of regulated nurses declined but number employed increased

In 2014, the supply of regulated nurses declined by 0.3% over the previous year. There were 406,817 regulated nurses: 293,205 RNs (including 3,966 NPs), 107,923 LPNs and 5,689 RPNs.

- In 2005, there were 345,845 regulated nurses: 268,397 RNs, 72,421 LPNs and 5,027 RPNs.
- The supply of RNs faced its first decline (-1.0%) in almost 2 decades. Growth in the supply of LPNs (1.4%) and RPNs (1.3%) continued to slow in 2014.

In 2014, the regulated nursing workforce — those actually employed in their profession at the time of annual registration — continued to grow, reaching 383,949 regulated nurses. This included 95.6% of RNs (including NPs), 95.5% of NPs, 90.9% of LPNs and 96.1% of RPNs.

Number of Canadian RN and RPN graduates registering in Canada held steady

Each year between 2005 and 2013, 80% to 90% of Canadian RN entry-to-practice graduates obtained a licence to practise in Canada, as did more than 90% of Canadian RPN entry-to-practice graduates. Graduates were most likely to attain a Canadian nursing licence within 3 to 4 years of graduation.

Number of nurses not renewing registration exceeded number entering profession

In 2014, 25,397 regulated nurses registered in a province or territory where they had not registered the year before. This fell short of the 27,757 regulated nurses who allowed their provincial or territorial registration to lapse at the end of 2013, resulting in a net loss of 2,360 regulated nurses.

- The majority of regulated nurses who allowed their registration to lapse were from Ontario, due in large part to regulatory changes that occurred in the province in 2014.

Retention highest among regulated nurses employed in hospital setting

Between 2005 and 2014, more than 80% of regulated nurses remained in the same workplace setting from one year to the next. The retention rates were highest in the hospital setting, where close to 90% of regulated nurses were retained, including more than 80% of RPNs, 85% of LPNs and 87% of RNs/NPs.
More Information

The following companion products to the Regulated Nurses, 2014 summary report are available on CIHI’s website at www.cihi.ca/hhr:

- *Regulated Nurses, 2014: Chartbook* (.pptx)
- *Regulated Nurses, 2014: RN/NP Data Tables* (.xlsx)
- *Regulated Nurses, 2014: LPN Data Tables* (.xlsx)
- *Regulated Nurses, 2014: RPN Data Tables* (.xlsx)

For your interest, information and analyses on 31 other health professionals in Canada is available at www.cihi.ca/hhr.

Feedback and questions are welcome at hhr@cihi.ca.
About This Report

Regulated Nurses, 2014 is the Canadian Institute for Health Information’s annual report on the supply, employment and demographic trends of Canada’s nursing workforce.

Changes to this report and its companion products have been made in response to feedback recently received from health human resources (HHR) stakeholders. Some of the improvements include

- Expanded data tables in Excel to enable readers to conduct their own analyses;
- Graphs available in PowerPoint so readers can “grab and go”;
- More contextual information to position nursing trends within the broader health care workforce; and
- More details concerning nurses who enter and exit the workforce.

To ensure that our work reflects priority needs, we invite our readers to join the discussion using CIHI’s Facebook page (www.facebook.com/CIHI.ICIS), CIHI’s Twitter account (https://twitter.com/CIHI_ICIS) or email (hhr@cihi.ca).

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Regulated Professions

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

Below is a brief description of each type of regulated nursing provider.

**Registered nurses** (RNs, including NPs) work both autonomously and in collaboration with other health care providers to coordinate health care, deliver direct services and support clients in their self-care decisions and actions in health, illness, injury and disability in all stages of life. RNs are currently regulated in all 13 provinces and territories.

**Nurse practitioners** (NPs) are RNs with additional educational preparation and experience. NPs may order and interpret diagnostic tests; prescribe pharmaceuticals, medical devices and other therapies; and perform procedures. NPs are currently regulated in all 13 provinces and territories.

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

**Licensed practical nurses** (LPNs) work independently or in collaboration with other members of a health care team. LPNs assess clients and work in health promotion and illness prevention. They assess, plan, implement and evaluate care for clients. LPNs are currently regulated in all 13 provinces and territories.
Notes to Readers

Throughout this report,

- The term *regulated nurses* is used to describe the 3 groups of regulated nursing professionals as a whole: RNs (including NPs), LPNs and RPNs.
- The term *nursing* refers collectively to Canada’s 3 regulated nursing professions, unless otherwise specified.
- The term *supply* refers to all nurses who are eligible to practise in the given year (including those employed and those not employed at the time of registration).
- The term *workforce* refers to only those nurses who were employed at the time of annual registration.
- Unless otherwise noted and/or referenced, data and information are from the nursing component of CIHI’s Health Workforce Database. At present, this data set excludes RPNs in Yukon and LPNs in Nunavut. More information regarding the collection and reporting of this data is available in the companion document *Regulated Nurses, 2014: Methodology Guide.*
Overview

This report explores how the nursing workforce has evolved over the past decade (2005 to 2014) and considers some of the broader transformations that have occurred across the Canadian economic and health care landscape.

The workforce is the foundation of the health care system, and regulated nurses represent the single largest group of health care professionals in the Canadian health care landscape, accounting for almost half of the health workforce. Given the impact regulated nurses have on health care delivery, it is important to monitor and understand the factors that influence the overall nursing supply, including

- The accessibility of nursing education programs (including the number of seats and program locations);
- The flow of nurses (from graduation to licensure, the outmigration of new graduates, recruitment of internationally educated nurses, mobility of nurses within and across Canadian jurisdictions, migration of nurses out of Canada); and
- The national and jurisdictional economies (which affect public spending on health care).

Regulated nurses play an important role in health care delivery across Canada. They work independently or in collaboration with other members of a health care team, providing services to individuals of all ages, their families and their communities. Understanding the trends in the supply of nurses and the factors influencing the nursing labour market provides needed insight for effective planning and management of health care delivery across the country.

The analyses will highlight changes in the trends of Canada’s nursing supply over the last 10 years, including

- The growth in the supply of nurses and the number of graduates from Canadian entry-to-practice nursing programs;
- The flattening of the age distribution curve among nurses;
- The stable state of nursing employment over time; and
- The evolving flow of nurses in and out of nursing practice as well as across employment settings.
Nursing Supply

After a decade of growth, the supply of regulated nurses declined by 0.3% between 2013 and 2014. In 2014, there were 406,817 regulated nurses eligible to practise in Canada: 293,205 RNs (including 3,966 NPs), 107,923 LPNs and 5,689 RPNs (Figure 1).

Between 2005 and 2014, the supply of nurses grew at an average annual rate of 1.8%. Growth in the supply of RNs faced its first decline (-1.0%) in almost 2 decades, while growth in the supply of LPNs (1.4%) and RPNs (1.3%) continued to slow in 2014.

Several factors influenced the reduced supply of RNs in 2014. Fewer nurses applied for registration, while more nurses chose not to renew their registration (due to retirement, leaving the profession or migrating to another Canadian jurisdiction or outside of Canada). Additionally, regulatory changes introduced in Ontario resulted in 12,273 nurses leaving the profession. In 2014, the College of Nurses of Ontario\(^i\) introduced the Declaration of Practice requirement whereby a member can renew only if she or he has practised nursing in Ontario within the past 3 years or has become registered or reinstated within the past 3 years. If these conditions are not met, the member has the option to move to the non-practising class, resign her or his membership or do nothing and have her or his membership revoked.\(^2\)

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**Source**
Health Workforce Database, 2015, Canadian Institute for Health Information.

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\(^{i}\) The College of Nurses of Ontario is the governing body for registered nurses, licensed/registered practical nurses and nurse practitioners in Ontario.
Since 2005, 92% to 94% of regulated nurses have been employed at the time of annual registration. In 2014, 95.6% of RNs (including NPs), 95.5% of NPs, 90.9% of LPNs and 96.1% of RPNs were employed in their profession at the time of annual registration.

Over the last 10 years, between 5% and 6% of regulated nurses have indicated they were not employed at the time of registration. In 2014, the proportion declined to 3.0%. This decline is a reflection of the decrease in the supply of nurses.

From 2005 to 2014, the proportion of nurses not employed declined among RNs/NPs (5.2% to 2.2%), NPs (2.5% to 1.6%) and LPNs (7.5% to 4.9%). The proportion of RPNs who were not employed changed slightly (0.1% to 0.8%).

Among LPNs who were not employed, the proportion seeking employment in practical nursing increased from 1.9% to 4.2%. The proportion of RNs/NPs and RPNs seeking employment in nursing remained relatively unchanged (1.2% and 0.4%, respectively).

By comparison, the unemployment rate for professional occupations in health (including RNs and RPNs but also chiropractors and dentists, among others) in 2014 was 0.6%. This was lower than the unemployment rate for all health professions (1.2%) and much lower than the overall unemployment rate (all industries) of 6.9%.1

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ii. Not employed includes nurses who were seeking and not seeking employment in nursing from the data fields not employed in nursing and employed in other than nursing.
Entry-to-Practice Nurse Graduates

Over the period 2004 to 2013, the number of graduates from Canadian entry-to-practice (ETP)\textsuperscript{iii} nursing programs continued to increase, reaching 20,146 in 2013 (Figure 2). During this period, the growth rate among registered nursing graduates was 4.7%, and that among psychiatric nursing graduates was 9.1%. Over the period 2007 to 2013, the growth rate among LPN graduates was 4.7%.

The rate of growth in graduates from Canadian regulated nursing programs slowed to 0.6% in 2013, following 5 years of growth rates between 6% and 12%.\textsuperscript{iv} Since 2009–2010, the number of students admitted to ETP RN programs in Canada has been decreasing.

\textbf{Figure 2: Number of Entry-to-Practice Nursing Graduates, by Profession, Canada, 2004 to 2013}

![Graph showing the number of Entry-to-Practice Nursing Graduates, by Profession, Canada, 2004 to 2013]

\textbf{Sources}
Canadian Association of Schools of Nursing; Ordre des infirmières et des infirmiers du Québec; Health Workforce Database, Canadian Institute for Health Information.

\textsuperscript{iii} ETP programs include pre-licensure nursing education entitling successful graduates to apply for initial licensure/registration as a nurse.

\textsuperscript{iv} Analysis is based on data reporting the number of graduates from nursing programs that fulfill ETP requirements to become a regulated nurse (RN, LPN or RPN).
RN Graduate Outmigration

Nurses seeking licensure to practise in Canada are required to register with a provincial or territorial regulatory body. By comparing the number of ETP nursing graduates from Canadian nursing programs with the number obtaining a nursing licence over time, we can better understand nursing graduate outmigration. Graduate outmigration\(^3\) is defined as the proportion of new graduates from Canadian nursing ETP programs who do not apply for registration with a Canadian nursing regulatory body.

When considering graduate outmigration, it is important to keep in mind that not all Canadian nursing graduates will choose to obtain a Canadian licence to practise nursing. Canadian nursing graduates may choose to pursue further education, leave Canada to practise nursing in another country or leave the profession altogether. Factors influencing a nurse’s decision on where to live and work are diverse and may include social, political, economic, environmental and/or familial issues.\(^4\)

Figure 3 uses Canadian RN ETP graduate data from 2005 to 2013 and RN licensure data from 2006 to 2014 to demonstrate the rate at which Canadian RN ETP graduates obtained a nursing licence following graduation. With the exception of 2009, between 85% and 90% of Canadian RN ETP graduates obtained a licence to practise nursing in Canada. Fewer than 82% of the 2009 graduates obtained a Canadian nursing licence in the following years. This decline had less of a lasting impact on RPN ETP graduates. While fewer of them obtained a Canadian psychiatric nursing licence in 2010 (80%), this rebounded to more than 91% by 2011.

Canadian RN ETP graduates were most likely to attain a Canadian nursing licence within 3 years of graduation. Since 2007, more than 90% of Canadian RPN ETP graduates have obtained an RPN licence to practise in Canada within 4 years of graduation.

Analysis tracking Canadian LPN graduates obtaining licensure is not possible at this time.
Figure 3: Percentage of Canadian RN Entry-to-Practice Graduates Holding a Nursing Licence, by Year of Graduation and Year of Registration, Canada, 2005 to 2013

Sources
Canadian Association of Schools of Nursing; Ordre des infirmières et des infirmiers du Québec; Health Workforce Database, Canadian Institute for Health Information.
Age Distribution of Regulated Nurses

Figure 4 demonstrates how the age distribution curve continued to flatten as the proportion of younger nurses continued to increase.

**Figure 4: Regulated Nurses by Age Group, Canada, 2005 to 2014**

The number of regulated nurses younger than age 40 and age 60 and older increased between 2005 and 2014 (from 109,948 to 158,306 and from 26,620 to 48,984, respectively). The number of nurses age 40 to 59 declined over the same period (from 206,687 to 199,524).

In 2014, the number of regulated nurses age 60 and older declined for the first time in 10 years. This decline occurred in all 3 nursing professions. RNs/NPs accounted for more than 80% of all nurses age 60 and older. In 2014, those younger than age 40 accounted for 46.6% of LPNs, making them the largest cohort within the supply of practical nurses. Nurses younger than 40 accounted for 36% of RNs/NPs and 30% of RPNs.

LPNs younger than 40 outnumbered those age 60 and older by more than 6 to 1. For RNs/NPs, the equivalent ratio was 3 to 1, while it was 2 to 1 for RPNs.

**Source**
Health Workforce Database, 2015, Canadian Institute for Health Information.
Looking at the age distribution of late-career nurses (Figure 5) provides insight into demographic and labour market changes facing the nursing workforce.

**Figure 5: Proportion of Regulated Nursing Supply Age 55 and Older, Canada, 2005 and 2014**

The proportion of regulated nurses age 60 and older increased from 7.7% to 12.0% of the nursing supply between 2005 and 2014. While literature suggests many Canadian professionals are choosing to delay retirement, the decline in the number of nurses occurred at roughly the same age in 2005 and 2014.

Among the nursing professions,

- The proportion of late-career RNs/NPs and RPNs in the workforce begins to decline after age 58; the shift occurs a year later among LPNs, at age 59.
- More than 13% of the RPN (14.8%) and RN/NP (13.5%) workforce were age 60 and older in 2014; this compares with 9.4% of RPNs and 8.1% of RNs/NPs in 2005.

**Source**
Health Workforce Database, 2015, Canadian Institute for Health Information.
Full-Time Employment

CIHI’s definition of full-time employment is the regulated nurse’s official status with her or his primary employer, not a reflection of the number of hours worked (or number of positions held). It is quite likely that some regulated nurses work the equivalent of full-time hours through a combination of multiple positions with 1 or more employers. In the analysis, only those employed on a full-time basis with their primary employer are considered full time.

Rates of full-time employment\(^v\) have fluctuated very little over the past decade, although there were substantial differences among the nursing professions. Figure 6 highlights rates of full-time employment across the regulated nursing professions in 2014: rates ranged from 62.0% for RPNs to 58.5% for RNs/NPs (79.8% for NPs) to 48.5% for LPNs.

Figure 6: Rates of Full-Time Employment Among Regulated Nurses, Canada, 2013–2014

![Bar chart showing full-time employment rates for different nursing professions.]

Source
Health Workforce Database, 2015, Canadian Institute for Health Information.

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\(^v\) The full-time employment analysis evaluates the primary employment status for all regulated nurses regardless of their position, place of work or area of responsibility. As such, regulated nurses working in direct care, education, research and/or administration are included in this analysis.
Place of Employment

Regulated nurses are employed in a broad variety of practice settings. The distribution of nurses by place of employment has remained relatively unchanged over the last 10 years. This is true for each of the nursing professions.

Hospitals remained the dominant employer across nursing professions and age groups in 2014. 58.6% of regulated nurses were employed in a hospital setting, 14.6% in community health, 14.7% in a nursing home or long-term care (LTC) setting and 12.1% in other places of work. Other more detailed findings include the following:

- 62.4% of RNs/NPs, 48.5% of LPNs, 44.7% of RPNs and 39.6% of NPs were employed in a hospital setting.
- More than 40% of RNs/NPs (42.2%) and LPNs (46.9%) employed in a hospital setting were younger than age 40 in 2014.
- Nurses age 60 and older accounted for less than 12% of nurses working in a hospital setting (9.5% of RNs/NPs, 6.6% of LPNs and 11.4% of RPNs).

![Figure 7: Nursing Workforce by Age Group and Place of Work, Canada, 2014](image)

Source
Health Workforce Database, 2015, Canadian Institute for Health Information.

vi. Other place of work includes business/industry/occupational health office, private nursing agency/private duty, self-employed, educational institution, association/government and other.
Flow of Nurses

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

**Inflow** occurs when a regulated nurse registers to practise in a jurisdiction in which she or he did not register the previous year. Inflow is calculated by dividing the number of new registrants — regulated nurses who were not registered to practise nursing in the same province or territory the year before — by the total number of registrants in the same year. Inflow can include new graduates, nurses who migrate in from other Canadian jurisdictions or foreign countries and those who return to the workforce after extended leave (such as for family responsibilities or further education).

**Outflow** occurs when a regulated nurse fails to renew her or his registration in a jurisdiction the following year. Outflow is calculated by dividing the number of registrants who did not renew their licence to practise nursing in the same province or territory by the total number of registrants in the same year. Outflow is influenced by a number of factors, and these factors will change over time. For those regulated nurses age 60 and older, failing to renew their registration may be a signal that they have retired. For younger regulated nurses, particularly those early in their career, reasons for failing to renew registration could include a better or different job opportunity outside of their province or territory, leaving the profession, parental leave and family responsibilities, or a return to school for additional education.

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vii. Nurses, like others in the labour force, consider many factors when choosing where to live and work. Factors might include social, political, economic, environmental and familial issues. 4
Inflow/Outflow for All Regulated Nurses

In 2014, 25,397 regulated nurses registered in a province or territory where they had not registered the year before. viii This inflow represented 6.7% of the regulated nursing supply (termed the “inflow” in Figure 8 below).

After the 2013 registration year, 27,757 regulated nurses failed to renew their registration in the same province or territory. This outflow represented 7.3% of the 2013 regulated nursing supply (termed the “outflow” in Figure 8).

Figure 8: Inflow and Outflow for All Regulated Nurses, Canada, 2005 to 2014

While the inflow has exceeded the outflow since 2005, the inflow decreased between 2013 and 2014 from 7.8% to 6.7%.

An unknown percentage of outflows each year are regulated nurses who migrate from one province or territory to another. For the most recent year, these individuals would be considered both an outflow in 2013 and an inflow in 2014.

viii. The figures in this section of the report exclude Quebec LPNs, for whom historical data is not available.
Inflow and outflow vary across the nursing professions. Since 2005, inflow has remained stable among RNs/NPs, with more nurses entering the profession than leaving. A shift in the RNs/NPs occurred between 2013 and 2014, when the outflow (7.3%) surpassed the inflow (6.7%). The increase in the outflow may reflect, in part, more RNs/NPs choosing to retire or leave the profession.

LPNs have shown a similar trend since 2005, with more LPNs entering the profession than leaving. The gap between the inflow and outflow of LPNs widened during this time period, reaching a peak in 2013 (12.3% and 8.6%, respectively). The trend shifted in 2014, when a decline in the inflow was seen (9.0%).

Changes to the regulatory environment in Ontario\textsuperscript{ix} (as noted earlier) affected the outflow among RNs/NPs and LPNs in the province. Outflow increased from 4.6% to 8.0% among RNs/NPs and from 5.2% to 8.1% among LPNs between 2012 and 2013.

RPN inflow and outflow show more variability because of the considerably smaller total numbers of inflows and outflows. In the most recent year, the inflow (8.5%) and outflow (7.4%) both increased.

**Retention and Flow of Nurses Across Settings**

Looking at the movement of nurses across employment settings provides an avenue to explore how the composition of the workforce within a setting can change over time. This information can be used by decision-makers to better understand how nurses are moving throughout their careers.

The retention and flow of nurses\textsuperscript{x} compares the employment setting of a nurse from one year to the next and considers the movement of each nurse between employment settings. For example, if a nurse was employed in a hospital setting in 2013 and reported a hospital setting again in 2014, the nurse would be considered retained. By contrast, if the nurse reported a community setting in 2014, the nurse would 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., retirements), the preference for a setting (e.g., because of work–life balance, scheduling) and reclassification (e.g., outpatient clinic from “hospital” to “community”).\textsuperscript{5}

\textsuperscript{ix} For more information, please refer to the Methodology section of the companion product *Regulated Nurses, 2014: Methodology Guide*.

\textsuperscript{x} The analysis is based solely on the administrative data on the supply of nurses in Canada maintained in CIHI’s Health Workforce Database.
Between 2005 and 2014, more than 80% of nurses stayed in the same workplace setting from one year to the next (Figure 9).

**Source**
Health Workforce Database, 2015, Canadian Institute for Health Information.

Retention rates were highest in the hospital setting across the nursing professions. More than 80% of RPNs, 85% of LPNs and 90% of RNs/NPs consistently remained in a hospital setting. Retention in the community health and nursing home/LTC settings was lower but typically remained above 80%.

In 2014, more than 84% of RNs/NPs and LPNs employed in a nursing home/LTC setting were retained. Only 69% of RPNs were retained in this setting, a notable decline from the more than 80% retained prior to 2014.

The rate of entry (Figure 10) was highest among regulated nurses employed in the other place of work\(^{xi}\) category. More than 20% of RNs/NPs, 26% of RPNs and 42% of LPNs commenced employment in a setting included in the category other place of work in 2014.

\(^{xi}\) Other place of work includes business/industry/occupational health office, private nursing agency/private duty, self-employed, educational institution, association/government and other.
Close to 30% of LPNs (29.8%) and RPNs (28.7%) were new to the community setting in 2014, whereas 17% of RNs/NPs entered the community setting. The high rate of entry in the community setting may be attributed to various factors (e.g., reclassification of positions, expansion of the setting, individual nurses’ personal preferences). A more thorough understanding would require in-depth analysis at the facility level.

**Figure 10: Entry of Employed Regulated Nurses by Place of Work, Canada, 2005 to 2014**

Source
Health Workforce Database, 2015, Canadian Institute for Health Information.
Conclusion

While regulated nursing employment trends have remained stable over the last 10 years, in 2014 the supply of nurses faced its first decline in 2 decades. In addition, the number of graduates from regulated nursing ETP programs has decreased alongside an increase in the number of nurses leaving each of the regulated nursing professions. It will be important to continue to watch these trends and maintain an understanding of the broader factors that can affect the supply of nurses.
References


