



## Regulated Nurses, 2013

Report

July 2014

Spending and Health Workforce



Canadian Institute  
for Health Information

Institut canadien  
d'information sur la santé

The page features decorative wavy lines in grey and teal that flow across the background, framing the central content area.

## Our Vision

Better data. Better decisions.  
Healthier Canadians.

## 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, 2013* highlights current trends in nursing practice across a variety of supply, employment and demographic characteristics. This report highlights data for the three groups of regulated nursing professionals in Canada: registered nurses (RNs, including nurse practitioners, or NPs), licensed practical nurses (LPNs) and registered psychiatric nurses (RPNs).

### **Growth in the supply of regulated nurses continues to outpace Canadian population growth**

In 2013, there were 408,093 regulated nurses eligible to practise in Canada, an increase of more than 8% since 2009. This rate of growth outpaced that of both the Canadian labour force<sup>1</sup> and the general population<sup>2</sup> over this period.

Between 2003 and 2013, the LPN supply grew by more than 50% in Canada. In comparison, the RN supply grew by 15% and the RPN<sup>i</sup> supply grew by 8% over this period. In 2013, there were 296,029 RNs (including 3,655 NPs), 5,617 RPNs and 106,447 LPNs eligible to practise in Canada.

### **LPNs have lower rates of full-time employment, and it takes LPN graduates longer to find full-time positions**

In 2013, the full-time employment rate was lower for LPNs (48.8%) than for RNs (58.4%) or RPNs (64.4%). For LPNs who had graduated since 2006, the rate of full-time employment was even lower than the LPN average.

### **Number gaining licensure continues to exceed number not renewing**

In 2013, 29,449 regulated nurses obtained licensure in a province or territory where they did not register the year before. This exceeded the 21,276 regulated nurses who allowed their provincial or territorial registration to lapse at the end of 2012, resulting in a net gain of 8,173 regulated nurses.

### **More younger, but more older regulated nurses as well**

Between 2003 and 2013, the proportion of regulated nurses younger than age 40 increased by almost 6 percentage points (to 37.6% of all regulated nurses), while the proportion age 60 and older also increased by almost 6 percentage points (to 12.3% of all regulated nurses).

i. RPNs are regulated separately in Manitoba, Saskatchewan, Alberta, British Columbia and Yukon. Data presented in this report does not include RPNs in Yukon.

## More Information

The following companion products to the *Regulated Nurses, 2013* summary report are available on CIHI's website at [www.cihi.ca/hhr](http://www.cihi.ca/hhr):

- *Regulated Nurses, 2013: Chartbook* (.pptx)
- *Regulated Nurses, 2013: Data Tables* (.xlsx)
- *Regulated Nurses, 2013: Methodology Guide* (.pdf)

For your interest, the following Health Human Resources (HHR) products are also available at [www.cihi.ca/hhr](http://www.cihi.ca/hhr):

- *National Physician Database, 2011–2012 Data Release*
- *Physician Services Benefit Rates Report, Canada, 2011–2012*
- *Supply, Distribution and Migration of Canadian Physicians, 2012*
- *Occupational Therapist Workforce, 2012*
- *Physiotherapist Workforce, 2012*
- *Pharmacists in Canada, 2012*
- *Medical Laboratory Technologists in Canada, 2011*
- *Medical Radiation Technologists in Canada, 2011*
- *Canada's Health Care Providers, 1997 to 2011—A Reference Guide*

Feedback and questions are welcome at [hhr@cihi.ca](mailto:hhr@cihi.ca).

## About This Report

*Regulated Nurses, 2013* 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 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](http://www.facebook.com/CIHI.ICIS)), CIHI's Twitter account ([twitter.com/CIHI\\_ICIS](http://twitter.com/CIHI_ICIS)) or email ([hhr@cihi.ca](mailto:hhr@cihi.ca)).

Finally, stay tuned to [www.cihi.ca/hhr](http://www.cihi.ca/hhr) where further analyses on Canada's nursing workforce will be released later this year.

For more information, please contact

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## Regulated Professions

There are three regulated nursing professions in Canada. Each province and territory has its own legislation governing nursing practice, and each jurisdiction has 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 four 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,

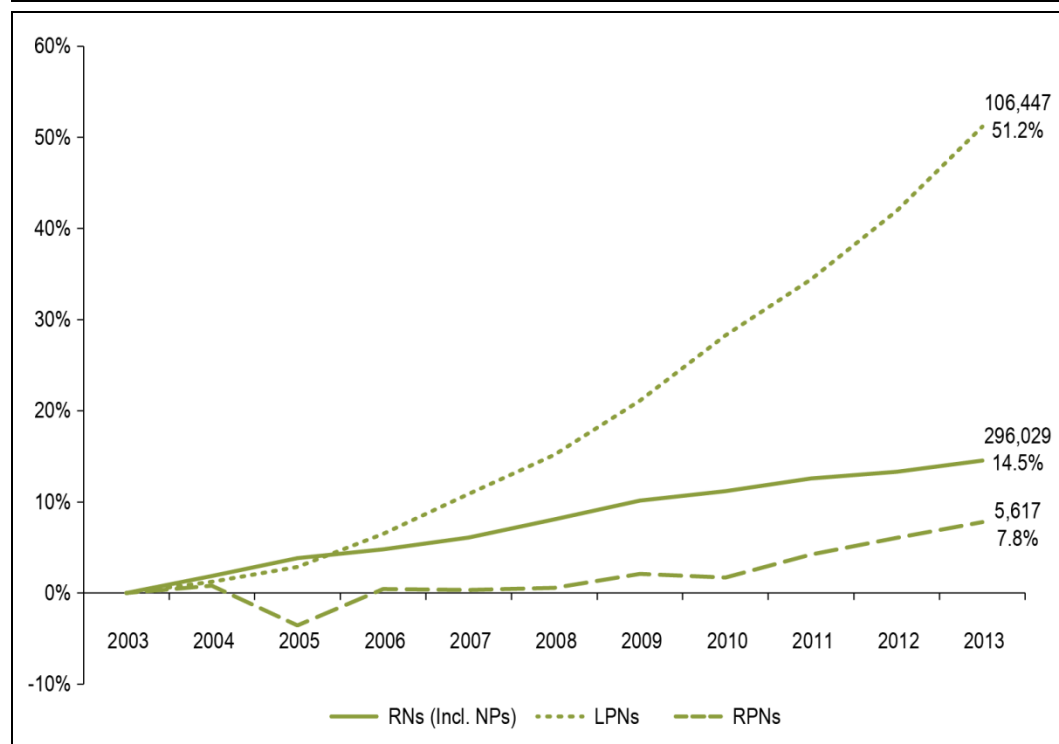
- The term *regulated nurses* is used to describe the three groups of regulated nursing professionals as a whole: RNs (including NPs), LPNs and RPNs.
- The term *nursing* refers collectively to Canada's three regulated nursing professions, unless otherwise specified.
- The term *supply* refers to all 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 NPs and 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, 2013: Methodology Guide*.



## Nursing Supply

Understanding how many regulated nurses are available to work in Canada is one component of ensuring the right number of health care providers (see Figure 1).

**Figure 1: Percentage Growth in the Supply of Regulated Nurses, 2003 to 2013**



**Note**

CIHI's data will differ from provincial/territorial statistics due to CIHI's collection, processing and reporting methodology. The Methodological Notes provide more comprehensive information regarding the collection and comparability of the regulated nursing data.

**Source**

Health Workforce Database, 2014, Canadian Institute for Health Information.

The supply of regulated nurses has continued to increase in Canada, with growth rates climbing in recent years.

- In 2013, there were 408,093 regulated nurses eligible to practise in Canada: 296,029 RNs (including 3,655 NPs), 106,447 LPNs and 5,617 RPNs.
- Between 2003 and 2008, the supply of regulated nurses increased at an average annual rate of 1.8%. Between 2009 and 2013, the average annual rate was 2.1%.
  - Between 2009 and 2013, average annual growth rates were 1.0% for RNs/NPs combined, 15.7% for NPs alone, 5.7% for LPNs and 1.4% for RPNs.

More than 90% of regulated nurses were employed at the time of registration, but employment rates differed by nursing profession.<sup>ii</sup>

- In 2013, 93.5% of RNs (including NPs), 95.1% of NPs, 87.9% of LPNs and 93.8% of RPNs were employed in their profession at the time of annual registration.
- The proportions not employed at registration were 3.8% of RNs (including NPs), 1.6% of NPs, 7.5% of LPNs and 0.7% of RPNs.

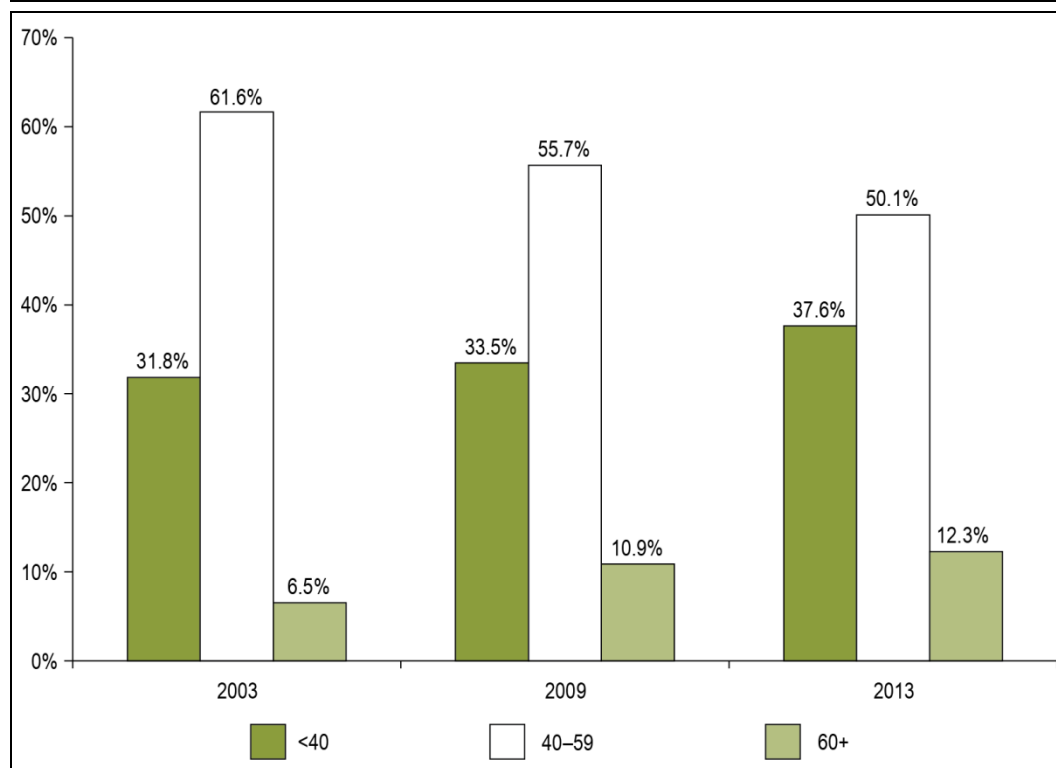
As the overall nursing supply grew, more regulated nurses were seeking employment.

- At the time of registration in 2009, 1.4% of regulated nurses indicated that they were not employed but were seeking employment in nursing. Since then, the proportion has steadily increased, reaching 2.5% of all nurses in 2013.

## Age Distribution of Regulated Nurses

The age distribution curve began to flatten over the past decade, as the proportions of both younger and older regulated nurses increased (see Figure 2).

Figure 2: Regulated Nurses by Age Group, Canada, 2003, 2009 and 2013



### Note

CIHI's data will differ from provincial/territorial statistics due to CIHI's collection, processing and reporting methodology. The Methodological Notes provide more comprehensive information regarding the collection and comparability of the regulated nursing data.

### Source

Health Workforce Database, 2014, Canadian Institute for Health Information.

ii . This analysis excludes those who did not state their employment status. *Not employed* includes regulated nurses who indicated they were employed in other than nursing and regulated nurses who were not employed at the time of registration.

Each nursing profession had more younger regulated nurses, but the growth during this period was most significant for LPNs. In 2013, those younger than age 40 accounted for almost half (45.4%) of the LPN supply.

- In 2013, the number of LPNs younger than age 40 outnumbered those age 60 and older by more than 5.5 to 1. For RNs/NPs, the equivalent ratio was 2.5 to 1, while it was almost 2 to 1 for RPNs.

The number of regulated nurses age 60 and older also increased between 2003 and 2013. In 2003, 21,768 regulated nurses in Canada were age 60 and older; by 2013, that number had more than doubled to 50,146.

## Full-Time Employment Rates

CIHI's definition of full-time employment for nursing data has not changed for more than a decade. It 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 one or more employers. In the analysis presented here, only those employed on a full-time basis with their primary employer are considered full time.

Rates of full-time employment<sup>iii</sup> have fluctuated very little over the past decade, although there were substantial differences among the nursing professions and between early-career and mid-career regulated nurses.

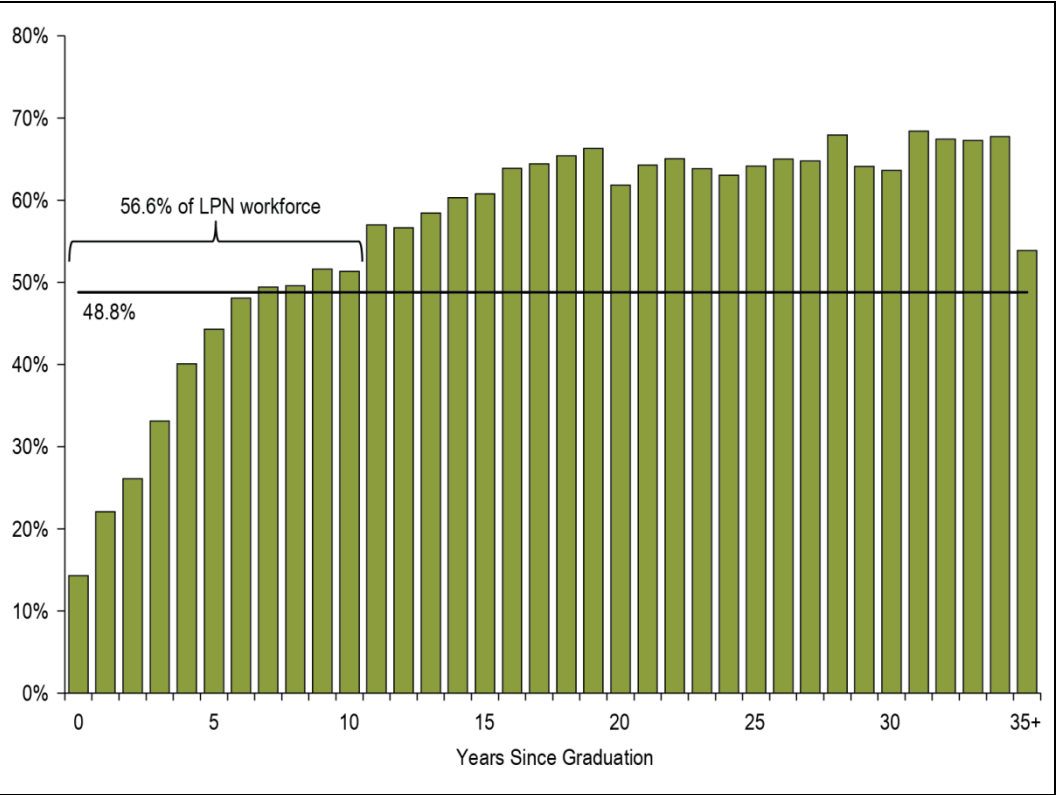
- In 2013, rates of full-time employment ranged from 64.4% for RPNs to 58.4% for RNs (77.8% for NPs) to 48.8% for LPNs.
- For those who graduated between 11 and 30 years ago, full-time employment rates ranged from 72% for RPNs to 63% for LPNs to 62% for RNs.

The length of time required for new graduates to reach the average rate of full-time employment varied by nursing profession.

- In 2013, just less than half (46.1%) of the RNs entering the workforce obtained a full-time position in their first year after graduation, while 54% obtained either a part-time (31.4%) or casual (22.5%) position. RNs reached the average rate of full-time employment (58.4%) four years after graduation.
- More than 55% (57%) of RPNs obtained full-time employment three years after graduation. On average, in 2013, RPNs were reaching the rate of full-time employment (64.4%) six years after graduation.
- Graduates of LPN programs waited the longest to obtain full-time employment in 2013 and typically reached the average full-time rate (48.8%) seven years after graduation (see Figure 3).

iii. 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.

Figure 3: LPNs Employed Full Time by Years Since Graduation, Canada, 2013



**Note**  
CIHI's data will differ from provincial/territorial statistics due to CIHI's collection, processing and reporting methodology. The Methodological Notes provide more comprehensive information regarding the collection and comparability of the regulated nursing data.

**Source**  
Health Workforce Database, 2014, Canadian Institute for Health Information.

## Nursing Inflows and Outflows

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

For example, to report that the supply of RNs (and NPs) increased by approximately 3,100 from 2012 to 2013 obscures the fact that more than 16,000 RNs left and more than 19,000 entered, resulting in a net change of +3,100. For policy-makers responsible for workforce planning, it is more important to understand the characteristics of those entering and leaving than to simply focus on the net change.

CIHI does not currently collect data to explain why some regulated nurses choose not to renew their registration. A number of factors<sup>iv</sup> influence a person's decision on where to live and work, 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, parental leave and family responsibilities, or a return to school for additional education.

### Definitions

*Inflow* occurs when a regulated nurse registers to practise in a jurisdiction in which she or he did not register the previous year.

Examples of inflows 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.

Examples of outflows include nurses who migrate out to other Canadian jurisdictions or a foreign country (either temporarily or permanently), retire or change careers, or begin extended leave (such as for family responsibilities or further education). Death would also be counted as outflow.

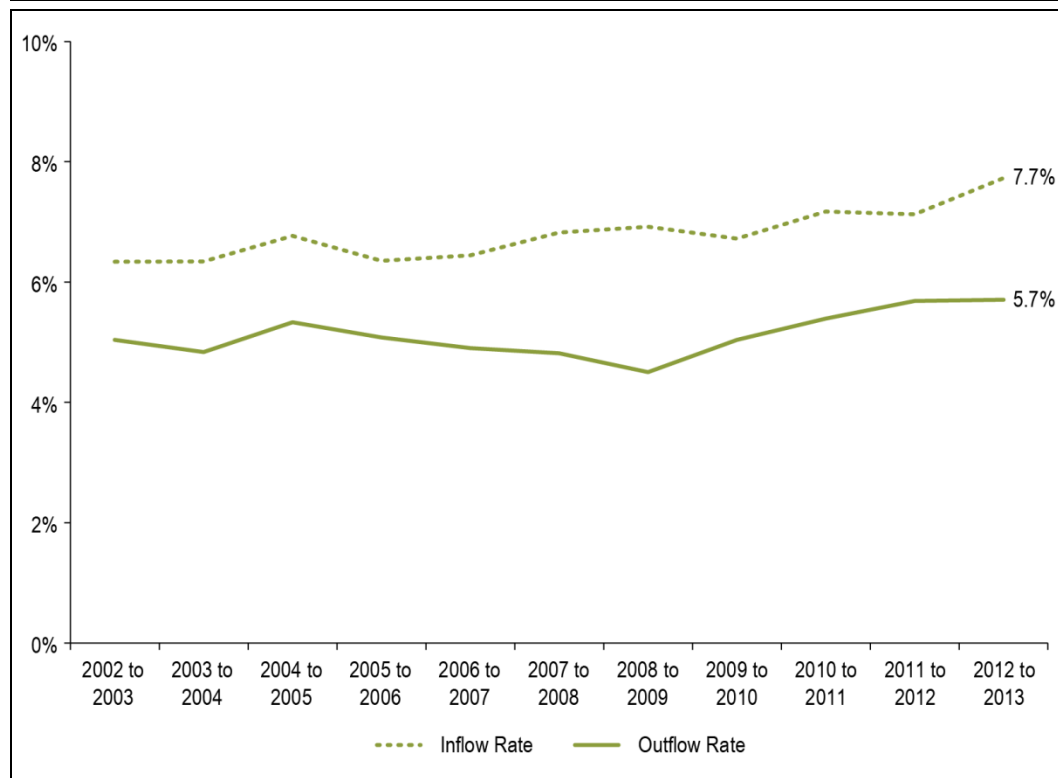
iv. Nurses, like others in the labour force, consider many factors when choosing where to live and work. Factors might include social, political, economic, environmental and familial issues.<sup>3</sup>

## Inflow/Outflow Rates for All Regulated Nurses

In 2013, 29,450 regulated nurses were eligible to practise in a province or territory where they had not registered the year before.<sup>v</sup> This inflow represents 7.7% of the regulated nursing supply (termed the “inflow rate” in Figure 4 below).

After the 2012 registration year, 21,277 regulated nurses failed to renew their registration in the same province or territory. This outflow represents 5.7% of the 2012 regulated nursing supply (termed the “outflow rate” in Figure 4).

**Figure 4: Inflow and Outflow Rates for All Regulated Nurses, Canada, 2002 to 2013**



### Notes

LPNs registering with the Ordre des infirmières et infirmiers auxiliaires du Québec are excluded from this analysis. CIHI's data will differ from provincial/territorial statistics due to CIHI's collection, processing and reporting methodology. The Methodological Notes provide more comprehensive information regarding the collection and comparability of the regulated nursing data.

### Source

Health Workforce Database, 2014, Canadian Institute for Health Information.

Overall, the inflow rate has exceeded the outflow rate since 2003, resulting in a net increase (or growth) in the nursing supply.

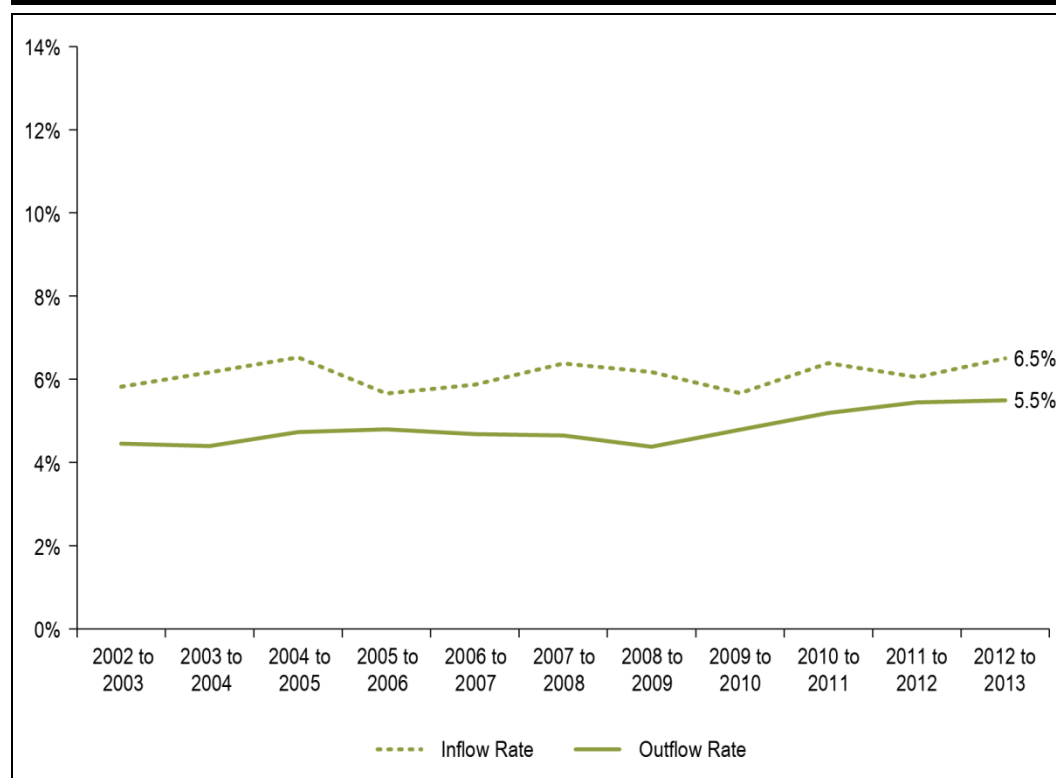
An unknown percentage of outflows each year are regulated nurses who migrate from one province or territory to another. For the most recent year, these individuals would be considered both an outflow in 2012 and an inflow in 2013.

v. The figures in this section of the report exclude Quebec LPNs, for whom historical data is not available.

## Inflow/Outflow Rates by Nursing Profession

The trend in Figure 4 is largely influenced by the number of RN inflows and outflows, and is therefore not consistent across each nursing profession (see figures 5 to 7).

**Figure 5: Inflow and Outflow Rates for RNs/NPs, Canada, 2002 to 2013**



### Note

CIHI's data will differ from provincial/territorial statistics due to CIHI's collection, processing and reporting methodology. The Methodological Notes provide more comprehensive information regarding the collection and comparability of the regulated nursing data.

### Source

Health Workforce Database, 2014, Canadian Institute for Health Information.

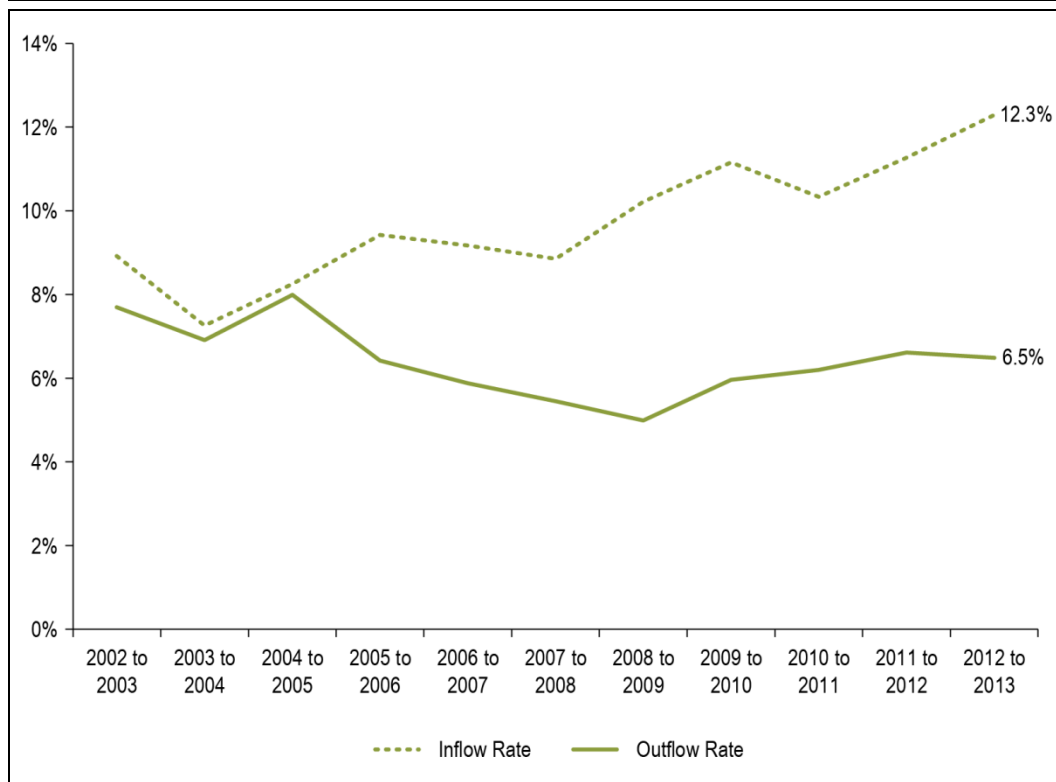
Inflow and outflow rates have remained stable for RNs/NPs over the past decade. Since 2009, however, the outflow rate has slowly increased, possibly reflecting, in part, more RNs/NPs choosing to retire.

Of the 16,094 RNs/NPs who did not renew their registration in the same province or territory in 2013,

- 4,951 (or 30.8%) were younger than age 40 in 2012;
- 5,132 (or 31.9%) were age 40 to 59 in 2012; and
- 6,010 (or 37.3%) were age 60 and older in 2012.<sup>vi</sup>

vi. Regulated nurses with unknown age values are excluded from age-breakdown analysis; numbers may not add up to totals.

Figure 6: Inflow and Outflow Rates for LPNs, Canada, 2002 to 2013

**Notes**

LPNs registering with the Ordre des infirmières et infirmiers auxiliaires du Québec are excluded from this analysis. CIHI's data will differ from provincial/territorial statistics due to CIHI's collection, processing and reporting methodology. The Methodological Notes provide more comprehensive information regarding the collection and comparability of the regulated nursing data.

**Source**

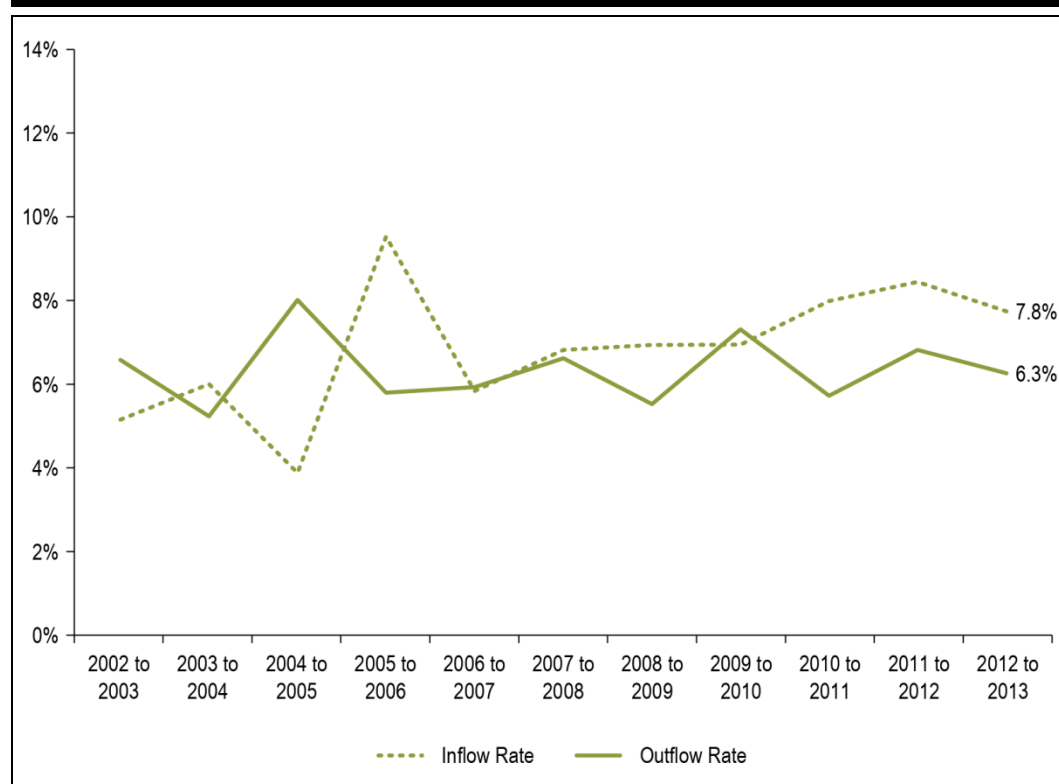
Health Workforce Database, 2014, Canadian Institute for Health Information.

Inflow and outflow rates for LPNs are very different from those for RNs/NPs. Overall, the gap has widened as the inflow rate has increased (to 12.3% in 2013) and the outflow rate has stabilized (at 6.5% after 2012). This gap clearly illustrates the strong growth observed in the LPN supply over the past five years.

Of the 9,774 inflows who newly registered in 2013,

- 7,370 (or 75.4%) were younger than age 40;
- 2,334 (or 23.9%) were age 40 to 59; and
- 70 (or 0.7%) were age 60 and older.



**Figure 7: Inflow and Outflow Rates for RPNs, Canada, 2002 to 2013****Note**

CIHI's data will differ from provincial/territorial statistics due to CIHI's collection, processing and reporting methodology. The Methodological Notes provide more comprehensive information regarding the collection and comparability of the regulated nursing data.

**Source**

Health Workforce Database, 2014, Canadian Institute for Health Information.

RPN inflow and outflow rates show more variability because of the considerably smaller total numbers of inflows and outflows. In the most recent year, the inflow and outflow rates each declined.

Of the 347 RPNs who did not renew their registration after 2012,

- 116 (or 33.4%) were younger than age 40;
- 120 (or 34.6%) were age 40 to 59; and
- 111 (or 32.0%) were age 60 and older.

## Demographic Characteristics of Inflows/Outflows

Recent graduates accounted for half of all inflows to the nursing supply in Canada in 2013.

- Of the 29,450 inflows to the regulated nursing supply in 2013, 51.8% (or 15,247) were recent graduates (in 2012 or 2013) and 78.9% (or 23,245) were younger than age 40.

When analyzing the age distribution of outflows, it is meaningful to look at the information in two ways: first, as a proportion of all outflows, and second, as a proportion of the supply.

Regulated nurses age 60 and older accounted for more than one-third of all outflows in Canada in 2013, a slightly larger proportion than those younger than age 40.

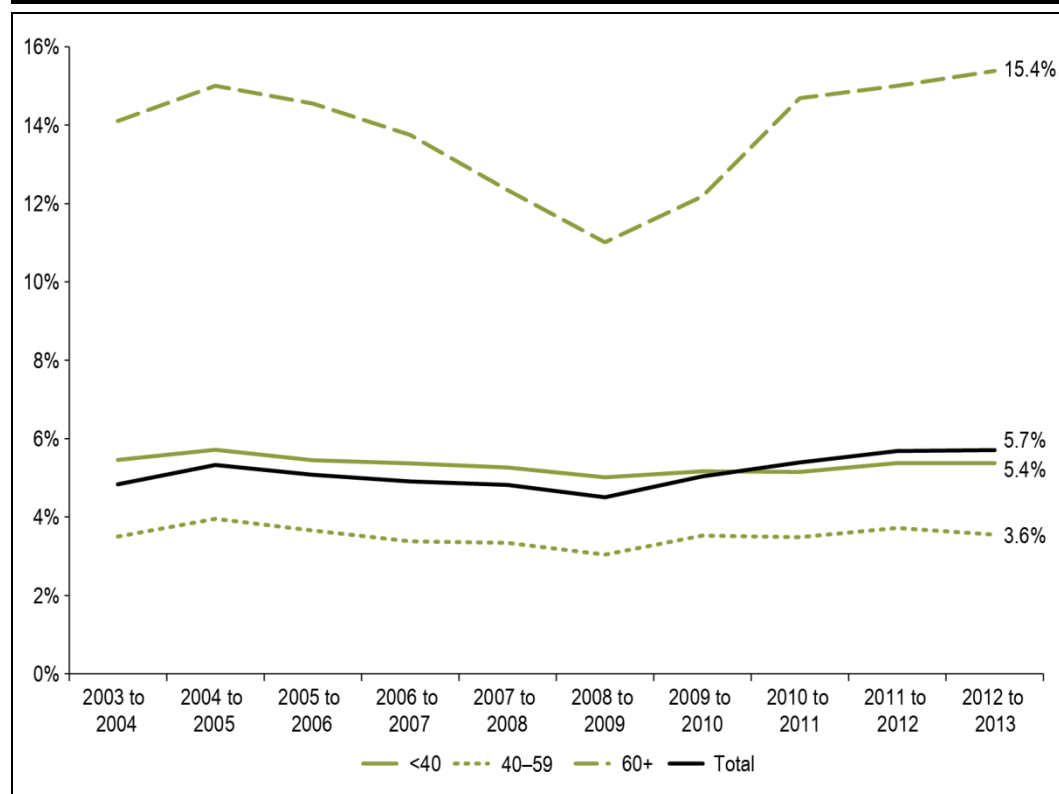
- Of the 21,277 outflows from the regulated nursing supply after 2012, 33.4% (or 7,099) were younger than age 40, 32.3% (or 6,874) were age 40 to 59, and 34.3% (or 7,303) were age 60 and older.<sup>vii</sup>

As a proportion of the supply (Figure 8), regulated nurses age 60 and older had a much higher outflow rate than regulated nurses in other age groups.

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vii. Regulated nurses with unknown age values are excluded from age-breakdown analysis; numbers may not add up to totals.

**Figure 8: Outflow Rates by Age Group for All Regulated Nurses, Canada, 2003 to 2013**



#### Notes

LPNs registering with the Ordre des infirmières et infirmiers auxiliaires du Québec are excluded from this analysis. CIHI's data will differ from provincial/territorial statistics due to CIHI's collection, processing and reporting methodology. The Methodological Notes provide more comprehensive information regarding the collection and comparability of the regulated nursing data.

#### Source

Health Workforce Database, 2014, Canadian Institute for Health Information.

After 2012, 15.4% of all regulated nurses age 60 and older failed to renew their registration in the same province or territory. That compares with 5.4% of all regulated nurses younger than age 40 and 3.6% of all regulated nurses age 40 to 59.

- This trend was very consistent across the three nursing professions. For those age 60 and older,
  - 15.3% (or 6,010) RN/NPs failed to renew in the same province or territory in 2013;
  - 16.0% (or 1,182) LPNs failed to renew in the same province or territory in 2013; and
  - 13.3% (or 111) RPNs failed to renew in the same province or territory in 2013.

Additional inflow/outflow data for each profession is included in the companion product *Regulated Nurses, 2013: Data Tables*.

## References

1. Statistics Canada. Tables 282-0002 and 282-0022: Labour force characteristics. CANSIM database. <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/econ10-eng.htm>. Accessed April 21, 2014.
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3. Clarke D, Plohman J, Cepanec D. Provincial survey of new Manitoba nursing graduates. Winnipeg, MB: Manitoba Centre for Nursing and Health Research; 2013. [http://umanitoba.ca/faculties/nursing/mcnhr/media/2011\\_12FinalProvincialSurveyReport.pdf](http://umanitoba.ca/faculties/nursing/mcnhr/media/2011_12FinalProvincialSurveyReport.pdf). Accessed April 30, 2014.

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