# The Regulation and Supply of Nurse Practitioners in Canada: 2006 Update





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## The Regulation and Supply of Nurse Practitioners in Canada: 2006 Update

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## Introduction

The Canadian Institute for Health Information (CIHI) and the Canadian Nurses Association (CNA) are pleased to present *The Regulation and Supply of Nurse Practitioners in Canada:* 2006 Update. This report provides contextual information on the history, roles and current regulation of the nurse practitioner (NP) profession in Canada with an updated statistical profile of the licensed NP workforce.

Specifically, this report includes:

- a definition and history of NPs in Canada;
- a current summary of provincial and territorial legislation and regulation of the NP profession (updated March 2006); and
- updated national statistics on the supply, education and employment patterns of the 2003, 2004 and 2005 licensed NP workforces.

The information and statistics presented here were compiled and analyzed by CIHI and the CNA, with significant contributions from the provincial and territorial regulatory authorities for registered nursing in Canada. CIHI and the CNA thank all regulatory authorities for their cooperation in the development of this report.

With this collaborative work, CIHI and the CNA seek to improve understanding of the NP profession in Canada. This work continues to fill existing knowledge gaps about the NP workforce, which can contribute to improved health human resource planning and policy-making in Canada.

## **Highlights**

- A nurse practitioner (NP) is a registered nurse (RN) with additional education in health assessment, diagnosis and management of illnesses and injuries, including ordering and interpreting tests and prescribing drugs.
- Twelve Canadian provinces and territories have NP legislation and regulations in place or in progress as of March 2006.
- NPs in each of these 12 jurisdictions can autonomously perform the following three functions:
  - 1. diagnose a disease, disorder or condition;
  - 2. order and interpret diagnostic and screening tests; and
  - 3. prescribe medication.

Legislation in many jurisdictions enables NPs to perform other functions as well.

- There were a total of 1,026 licensed NPs registered in the jurisdictions of Newfoundland and Labrador, Nova Scotia, New Brunswick, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, the Northwest Territories and Nunavut in 2005. The jurisdictions of Prince Edward Island and the Yukon Territory did not have separate NP designation for the 2005 registration year. For Quebec, NP legislation and regulations came into effect late in 2005 and thus no data was available at the time of the publication.
- Rates of full-time employment are substantially higher for NPs than for other RNs. In 2005, more than 75% (75.9%) of licensed NPs with employment worked full-time; that compares to rates of 51% to 54% for the RN workforce.
- When self-identifying their current position at the time of registration, more than three-quarters (76.8%) of licensed NPs indicated *nurse practitioner*. The remaining 23% self-identified their primary role as *manager* (2.9%), *staff nurse/community health nurse* (8.9%), *instructor/professor/educator* (3.5%) and *other positions/not stated* (7.9%).
- The eldest NPs, on average, were the instructors/professors/educators, at 48.9 years.
   The average age of all licensed NPs was 45.2 years in 2005, an increase from 44.8 years in 2004.

### The Nurse Practitioner Profession

### **Definition**

A nurse practitioner (NP) is a registered nurse (RN) with additional education in health assessment, diagnosis and management of illnesses and injuries, including ordering tests and prescribing drugs.<sup>1</sup>

NPs provide a range of health services to individuals of all ages, families, communities and groups. Their practice emphasizes health promotion and illness prevention. They are legislated and regulated to perform comprehensive health assessments, to diagnose and treat health problems, to order and interpret the results of diagnostic and screening tests such as ultrasound and mammography and to prescribe drugs and medication. NPs provide care in diverse health settings, from community clinics and health centres to hospitals, medical practices, nursing homes and home care settings.

Grounded in the nursing profession's values, knowledge, theories and practice, NPs work both autonomously—from initiating the care process to monitoring health outcomes—and in collaboration with other health care providers including RNs, practical nurses, therapists, nutritionists, social workers, pharmacists and particularly family physicians.

## **History in Canada**

The introduction of the NP can be traced to the late 1960s in Canada, resulting from the changing roles of the nurse, perceived physician shortages and movement toward specialization. While there was general recognition of the need for the nurse practitioner role at that time, there was little or no movement to formalize the role in legislation and regulation. In the 1970s, several approved education programs began graduating NPs in Canada, but without the support of legislation and regulation, most of these nurses operated in a "nurse practitioner–like" role, but were licensed as RNs and worked under delegated medical functions. The NP role was primarily dependent upon physician collaboration and supervision, particularly in urban areas.

By the 1980s, most of the NP initiatives underway in Canada had disappeared. Some of the reasons for this include a perceived oversupply of physicians; lack of remuneration mechanisms; the absence of provincial/territorial legislation; little public awareness of the role; and weak support from policy-makers and other health professionals. The health system renewal of the 1990s, combined with limited resources and a desired shift to primary health care, led to a renewed interest in the role of the nurse practitioner. This led many provinces and territories to pursue formal regulation and education of the NP profession, including defined scopes of practice.

Today, NPs in either acute care or primary health care are an important resource that can contribute to improved access to health care for Canadians. Decision-makers at all levels recognize the contribution that NPs can offer in providing timely access to quality care.

<sup>1.</sup> Canadian Nurses Association, *The Nurse Practitioner* (Ottawa: CNA, 2003), [online], cited June 15, 2005, from <cna-aiic.ca/CNA/documents/pdf/publications/PS68 Nurse Practitioner June 2003 e.pdf>.

## Legislation and Regulation

Examination of the Canadian legislation and regulation for NPs reveals that all provinces and territories have or are moving toward the enactment of legislation to support the regulation of NPs. Provinces and territories that led the way with the first NP legislation are now undertaking reviews and revisions of legislation and regulation to reflect and support the evolving and autonomous nature of the nurse practitioner role.

As of March 2006, those provinces and territories that have legislation and regulations in place or in progress include Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, the Northwest Territories and Nunavut. The Yukon Territory is currently without legislation governing NPs. For those provinces and territories with existing NP legislation and regulation, there exists a high degree of congruence between the competency frameworks developed by each jurisdiction.

The following is a summary of the legislation and regulation in place governing the NP profession across the country. For the purposes of this summary, *legislation* refers to those laws regulating NPs, *scope of practice* refers to those areas of practice outlined by the legislation, *title protection* refers to the existence of legislation which prevents the use of the title of "nurse practitioner" by unauthorized individuals and *licensure and registry information* refer to the record of licensed professionals by provincial and territorial regulatory authorities.

#### Newfoundland and Labrador

#### Legislation

In 1997, the *Registered Nurses Act* was amended to provide for NPs. It was further amended in 2001 to provide for practice protocols. Practice protocols for specialties are developed by employing agencies and approved by a committee established under the *Registered Nurses Act*, using the approval process established and approved by the Association of Registered Nurses of Newfoundland and Labrador (ARNNL) Council and the Minister of Health and Community Services.

#### Scope of Practice

Under the *Registered Nurses Act*, NPs are authorized to:

- refer to a physician, including specialists;
- make and communicate a diagnosis;
- · order laboratory or other diagnostic tests;
- prescribe a drug (as prescribed in regulation or a practice protocol issued to them); and
- provide emergency care.

#### Title Protection, Licensure and Registry Information

"Nurse practitioner" is a protected title and the regulation defines "NP—primary health care" and "NP—specialist." The ARNNL designates on the licence whether the NP is licensed to work in primary health care or in a specialty area.

#### **Prince Edward Island**

#### Legislation

On February 25, 2006, P.E.I. proclaimed the new *Registered Nurses Act*, which allows nurse practitioners to work to their full scope of practice in the province.

#### Scope of Practice

The new Registered Nurses Act authorizes NPs to:

- make and communicate a diagnosis under certain conditions;
- order and interpret laboratory or other diagnostic tests and X-rays;
- prescribe drugs (per guidelines);
- · provide emergency care; and
- order the application of forms of energy.

The Diagnostic and Therapeutics Committee has been formed to formulate, maintain and revise the *Nurse Practitioner Medication Prescription Guidelines*.

#### Title Protection, Licensure and Registry Information

The new Act provides title protection for NPs. It also authorizes NPs to practise within their defined scope.

#### **Nova Scotia**

#### Legislation

The Registered Nurses Act, effective January 2, 2002, includes both RNs and NPs.

#### Scope of Practice

The Registered Nurses Act authorizes NPs (both primary health care and specialty NPs) to:

- make diagnoses of diseases, disorders or conditions and communicate those diagnoses to clients;
- · order and interpret selected screening and diagnostic tests; and
- select, recommend, prescribe and monitor the effectiveness of certain drugs and treatments.

#### Title Protection, Licensure and Registry Information

In Nova Scotia, title protection exists for the following:

- Registered Nurse, Nurse, nurse, R.N., RN, Reg.N;
- Nurse Practitioner, NP, N.P.; and
- Specialty Nurse Practitioner, Primary Health Care Nurse Practitioner.

The requirements are set out in the regulations for licensing primary health care nurse practitioners and specialty nurse practitioners.

#### **New Brunswick**

#### Legislation

In July 2002, amendments to the *Nurses Act* (1984—amended in 1997 and 2002) provided the NP definition and practice and the creation of the NP Therapeutics Committee. Amendments to other acts allowed NPs to do their work under the authority of other acts (*Pharmacy Act, Hospital Act, Radiological Health Protection Act*, etc.).

#### Scope of Practice

According to the *Nurses Act*, an NP may:

- diagnose or assess a disease, disorder or condition and communicate the diagnosis or assessment to the patient;
- · order and interpret screening and diagnostic tests;
- select, prescribe and monitor the effectiveness of drugs; and
- order the application of forms of energy.

#### Title Protection, Licensure and Registry Information

The "nurse practitioner" title is protected. At the present time, only primary health care NPs are eligible for registration.

#### Quebec

#### Legislation

An Act to amend the Professional Code and other legislative provisions as regards the health sector (Bill 90) is a new law in force since January 30, 2003, which modifies Article 36 of the *Nurses Act* and creates a new article, Article 36.1, to regulate specialized NP practice in Quebec. In essence, Quebec's *Nurses Act* includes a clause that requires adoption of regulations from both the medical and nursing regulatory bodies to define the expanded scope of practice for specialized NPs.

Regulations were developed collaboratively between the Ordre des infirmières et infirmiers du Québec (OIIQ) and the Collège des médecins du Québec. The regulations for three specialties (neonatology, cardiology and nephrology) were approved by Quebec's government on October 26, 2005, and came into force on November 24 of that year. Regulations for primary health care are now in process.

#### Scope of Practice

The new law gives NPs the right to engage in five additional activities, according to conditions and terms set out by regulations and for each specialty:

- prescribing diagnostic examinations;
- using diagnostic techniques that are invasive or entail risks of injury;
- · prescribing medications and other substances;
- prescribing medical treatment; and
- using techniques or applying medical treatments that are invasive or entail risks of injury.

#### Title Protection, Licensure and Registry Information

In Quebec, only nurses who hold a specialist's certificate can use the title "specialized nurse practitioner." The OIIQ keeps a register indicating the nurses who hold a specialist's certificate. It is the responsibility of the hospitals and facilities concerned to keep an updated register for these nurses.

#### Ontario

#### Legislation

In Ontario, RNs in the Extended Class (RN[EC]) are regulated under the *Regulated Health Professions Act*, 1991 and the *Nursing Act*, 1991.

#### Scope of Practice

The Nursing Act authorizes RN(EC)s to carry out three additional controlled acts:

- communicate a diagnosis;
- order the application of energy, such as ultrasound and some X-rays (may also order laboratory or other diagnostic tests, as specified in regulation); and
- prescribe and administer certain drugs as listed in regulation.

The legislation requires RN(EC)s to adhere to consultation standards that include developing a consultation network with other health care providers, including physicians.

#### Title Protection, Licensure and Registry Information

Currently there is no title protection in Ontario for "nurse practitioner." There is title protection for "registered nurse Extended Class" (RN[EC]). The College of Nurses of Ontario's intent is to request title protection for "nurse practitioner" for all RN(EC)s functioning in the nurse practitioner role.

#### Manitoba

#### Legislation

Manitoba's *Registered Nurses Act* was proclaimed in 2001 as new legislation. The new Extended Practice Regulation was approved on March 22, 2005, and came into force on June 15, 2005.

#### Scope of Practice

RNs who meet the requirements in the Extended Practice Regulation will have the authority to include the following services in their scope of practice:

- assessment and diagnosis of client health/illness status;
- ordering and receiving results of screening and diagnostic tests;
- prescribing drugs; and
- performing minor surgical and invasive procedures.

#### Title Protection, Licensure and Registry Information

Only those RNs registered on the extended practice register can use the RN(EP) designation.

#### Saskatchewan

#### Legislation

Amendments to the Saskatchewan *Registered Nurses Act* were proclaimed on May 1, 2003, to include NPs.

#### Scope of Practice

These amendments now allow those licensed as a registered nurse (nurse practitioner) (RN[NP]) to:

- order, perform, receive and interpret reports of screening and diagnostic tests that are designated in the bylaws;
- prescribe and dispense drugs in accordance with the bylaws;
- perform minor surgical and invasive procedures that are designated in the bylaws; and
- diagnose and treat common medical disorders.

#### Title Protection, Licensure and Registry Information

The title "RN(NP)" is protected in a bylaw in Saskatchewan.

#### Alberta

#### Legislation

In 1996, Alberta's *Public Health Act* was created with a section entitled "extended health services." In 1999, the province's *Nursing Profession Act* Extended Practice Roster Regulation provided for the capacity to regulate RNs—extended practice (EP) on a separate (subset) roster through the professional association, the Alberta Association of Registered Nurses (AARN). In 2002, the *Public Health Act*, Nurse Practitioner Regulation added the words "nurse practitioner" and described what NPs can do. On November 30, 2005, the Registered Nurse Profession was proclaimed under the *Health Professions Act* (2000) and the Registered Nurse Profession Regulations (2005) came into effect.

#### Scope of Practice

The *Health Professions Act* (HPA) does not focus on exclusive scopes of practice but instead focuses on restricted activities that may be performed by regulated members of a profession, provided the member has the competence to perform the restricted activity.

The *Registered Nurse Profession Regulations*, 2005, section 15, specify that a regulated member on the nurse practitioner register may, within the practice of registered nursing, perform the restricted activities outlined for registered nurses and the following additional restricted activities when practising as a nurse practitioner:

- prescribe a Schedule 1 drug within the meaning of the *Pharmaceutical Profession Act* (excludes narcotics and controlled substances);
- prescribe parenteral nutrition;
- prescribe blood products;
- order and apply any form of ionizing radiation in medical radiography;
- order any form of ionizing radiation in nuclear medicine;
- order non-ionizing radiation in magnetic resonance imaging;
- order or apply non-ionizing radiation in ultrasound imaging, including any application of ultrasound to a fetus;
- prescribe diagnostic imaging contrast agents; and
- prescribe radiopharmaceuticals, radio-labelled substances, radioactive gases and radioaerosols.

#### Title Protection, Licensure and Registry Information

The title "Nurse Practitioner," and initials NP, are now protected and can only by used by a nurse who has met the registration requirements to be entered into the NP category of the regulated members register.

#### **British Columbia**

#### Legislation

Under the *Health Professions Act*, Nurse (Registered) and Nurse Practitioner Regulation were enacted and have been in effect since August 19, 2005.

#### Scope of Practice

Under the *Health Professions Act*, NPs are subject to the standards, limits and conditions set by the College of Registered Nurses of B.C. to:

- make and communicate diagnoses identifying disease, disorder or condition;
- apply X-ray for diagnostic or imaging purposes, except CT;
- order X-ray and CT and ultrasound;
- prescribe drugs (specified in Schedule I or II of the Drug Schedules Regulation, B.C.); and
- set and cast closed simple fractures or reduce dislocated joint.

#### Title Protection, Licensure and Registry Information

Under the *Health Professions Act*, the titles of "nurse practitioner" and "registered nurse practitioner" are protected.

#### **Yukon Territory**

In the Yukon Territory, the *Registered Nurses Profession Act* of 1992 has broad language to cover the work of RNs in both conventional and expanded roles. Separate regulation of NPs has not yet been introduced, and currently title protection exists only for RNs.

RNs working in rural and remote areas work according to the policies of the employer in regards to diagnosing and prescribing.

#### **Northwest Territories and Nunavut**

#### Legislation

The *Nursing Profession Act* of the Northwest Territories and amendments to the *Nunavut Nursing Profession Act* were proclaimed January 1, 2004. Language to include NPs was established through subsequent amendments to the *Pharmacy Act* and the *Public Health Act*, and an amendment is also planned for the *Hospitals Act* regulations.

#### Scope of Practice

The *Nursing Profession Act* (Northwest Territories) allows NPs to do the following:

- make a diagnosis identifying a disease, disorder or condition;
- communicate a diagnosis to a patient;
- order and interpret screening and diagnostic tests;
- prescribe a drug (as prescribed in regulation or a practice protocol issued to him or her); and
- perform other procedures that are authorized in guidelines approved by the minister.

#### Title Protection, Licensure and Registry Information

"Nurse practitioner" is a protected title in both the Northwest Territories and Nunavut. NPs are registered in the RN Register as well as in the NP Register.

## **Summary**

NPs in each of the 12 jurisdictions with NP legislation can or will perform the following three functions:

- 1. diagnose a disease, disorder or condition;
- 2. order and interpret diagnostic and screening tests; and
- 3. prescribe medication.

Legislation in many jurisdictions enables NPs to perform other functions as well.

## **Data Analysis**

This data analysis uses the term *licensed NP* to indicate an RN meeting the education, training and/or experience requirements necessary for nurse practitioner (NP) licensure in her or his province or territory of registration.

As of March 2006, nurse practitioner legislation and regulations were in place or in progress for 12 jurisdictions in Canada. But the most recent registration data available for this analysis are from the 2005 registration year, when only 10 jurisdictions licensed NPs separately from other registered nurses (as identified in Table 1 below).

#### **Supply of Licensed Nurse Practitioners**

The number of jurisdictions licensing NPs increased from 7 in the 2003 registration year (Newfoundland and Labrador, Nova Scotia, New Brunswick, Ontario, Alberta, the Northwest Territories and Nunavut) to 8 in 2004 (with the addition of Saskatchewan) and to 10 in 2005 (with the additions of Manitoba and British Columbia).

Table 1. Types of NP Licensure Offered by Province or Territory of Registration, Canada, 2005

	Acute Care	Primary	
	(or Specialty)	Health Care	
N.L.	✓	✓	
P.E.I.	No NP de	esignation	
N.S.	✓	✓	
N.B.		✓	
Que.	✓		
Ont.		✓	
Man.	Not licensed separately		
Sask.	✓	✓	
Alta.	Not licensed separately		
B.C.	Special designations		
Y.T.	No NP designation		
N.W.T./Nun.	Not licensed separately		

Sources: Canadian Nurses Association and provincial and territorial RN regulatory authorities.

The type of licensure offered to NPs varies, with some jurisdictions recognizing both acute care (or specialty) and primary health care NPs. Other jurisdictions do not offer separate types of licensure for NPs.

In 2005, there were fewer than 5 acute care (or specialty) NPs licensed in each of Newfoundland and Labrador and Saskatchewan; Nova Scotia licensed 20 acute care (or specialty) NPs and 23 primary health care NPs.

British Columbia offers three streams of practice to NPs: family, adult and pediatric.<sup>2</sup> A summary of this information is presented in Table 1.

The number of licensed NPs in Canada<sup>3</sup> is very small in comparison to the RN workforce: the 1,026 licensed NPs in 2005 represent approximately 0.4% of the more than 245,000 nurses in the overall RN workforce.

Registered Nurses Association of British Columbia, A Regulatory Framework for Nurse Practitioners (Vancouver: RNABC, 2005), [online], cited April 30, 2006, from <a href="http://www.crnbc.ca/downloads/NP\_Regulatory\_framework.pdf">http://www.crnbc.ca/downloads/NP\_Regulatory\_framework.pdf</a>>.

<sup>3.</sup> In this analysis, "Canada" totals include only provinces and territories in which nurse practitioners are licensed separately from other registered nurses.

Between 2003 and 2005, the number of licensed NPs increased by at least 18% in each jurisdiction (where 2003 to 2005 data are available). The number of licensed NPs in Alberta increased by 73.7% (from 76 to 132).

Table 2. Number of Licensed NPs by Province or Territory of Registration, Canada, 2003 to 2005

	2003	2004	2005	Percent Change
N.L.	57	62	68	19.3%
P.E.I.	_	_	_	n/a
N.S.	29	34	43	48.3%
N.B.	6	14	22	266.7%
Que.	_	_	_	n/a
Ont.	552	598	653	18.3%
Man.	_	_	< 5	n/a
Sask.	_	42	75	n/a
Alta.	76	112	132	73.7%
B.C.	_	_	≥5	n/a
Y.T.	_	_	_	n/a
N.W.T./Nun.	5	16	22	340.0%
Canada	725	878	1,026	41.5%

Sources: CIHI/RNDB and provincial and territorial RN regulatory authorities.

#### Notes

- < 5 The number of licensed NPs is between 1 and 4; value is removed to protect privacy and confidentiality.
- ≥5 The number of licensed NPs is 5 or greater; value is removed to protect privacy and confidentiality.
- Separate NP licensure, or no designation for NPs, exist for that registration year.
   n/a Data not applicable.

Totals in Table 2 include all licensed NPs, regardless of employment status.

Please refer to Appendix A for more information regarding the collection, comparability and reporting of licensed NP data.

#### **Demographic Characteristics**

## Age Distribution and Average Age

The age distribution of licensed NPs in Canada is illustrated in Figure 1. In 2005, almost one-third (31.7%) of licensed NPs were aged 50 years or older. This compares to approximately 37% of the 2005 RN workforce that were 50 years or older.

The average age of licensed NPs increased by 0.4 years between 2004 and 2005, from 44.8 years to 45.2 years.

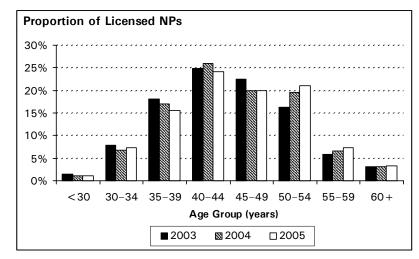


Figure 1. Proportion of Licensed NPs by Age Group, Canada, 2003 to 2005

Sources: CIHI/RNDB and provincial and territorial RN regulatory authorities.

#### Note

The 2003 data include 7 jurisdictions, the 2004 data include 8 jurisdictions and the 2005 data include 10 jurisdictions.

The eldest licensed nurse practitioners, on average, were in the Northwest Territories/Nunavut, with an average age of 47.9 years. The youngest licensed NPs, on average, were in British Columbia, with an average age of 40.3 years.

#### **Education Characteristics**

A substantial proportion of licensed NPs have obtained a master's or doctorate in nursing, in part reflecting the requirements for NP licensure in many provinces.

Table 3. Educational Attainment of Licensed NPs in Canada, 2005

	Initial Education in Nursing	Education
Diploma	66.6%	15.2%
Baccalaureate	32.9%	61.9%
Master's/Doctorate	0.5%	22.9%

Sources: CIHI/RNDB and provincial and territorial RN regulatory authorities.

#### Notes:

 ${\it Highest\ education\ in\ nursing\ }}$  includes both RN programs and NP programs.

Please refer to Appendix A for more information regarding the collection, comparability and reporting of licensed NP data.

While less than one-third of licensed NPs initially graduated from a baccalaureate program in registered nursing, more than one-fifth (22.9%) now have at least a master's in nursing. Please note, however, that the totals presented in Table 3 cannot identify between an RN program and an NP program.

Almost one-third (30.7%) of those currently licensed as NPs first graduated from nursing school before 1980; approximately 35% (35.6%) first graduated in the 1980s, with one-quarter (25.2%) beginning their nursing career since 1990.

At present, we don't know when these RNs first obtained their NP licensure.

#### **Employment Characteristics**

Employment Status

Table 4. Employment Status of Licensed NPs, Canada, 2003 to 2005

	2003	2004	2005
Full-time	67.4%	68.9%	75.9%
Part-time	16.6%	15.5%	17.9%
Casual	4.2%	3.5%	4.2%
Employed—Status unknown	11.8%	12.1%	2.0%
Total	100.0%	100.0%	100.0%

Sources: CIHI/RNDB and provincial and territorial RN regulatory authorities.

#### Notes

Totals include only licensed NPs employed in nursing at the time of registration (n = 694 in 2003, n = 832 in 2004 and n = 970 in 2005).

Please refer to Appendix A for more information regarding the collection, comparability and reporting of licensed NP data.

Approximately 95% (94.5%) of licensed NPs were employed at the time of registration in 2005, with 3.8% not employed and 1.7% failing to state their employment status. These rates are similar to 2004 statistics, when 94.8% of licensed NPs were employed, 4.2% not employed and 1.0% failed to state their employment status at the time of registration.

These employment rates are slightly higher than the overall RN workforce, where typically 91 to 94% of licensed RNs are employed in registered nursing at the time of registration.

In comparison to the overall RN workforce, rates of full-time employment are substantially higher for licensed NPs, while rates of casual employment are substantially lower.

Over the past several years, the proportion of the RN workforce employed full-time has varied between 51% and 54%; in contrast, more than three-quarters (75.9%) of licensed NPs with employment were employed on a full-time basis in 2005. Please note, however, that this observed increase is partly attributed to increased data accuracy in 2005. Between 2004 and 2005, the proportion of *Employed–Status Unknown* records decreased from 12.1% to 2.0%.

Approximately 4% (4.2%) of licensed NPs with employment worked on a casual basis, compared to approximately 7% to 9% of the 2005 RN workforce.

Those licensed NPs with full-time employment were, on average, 45.2 years of age in 2005, compared to 44.5 years for those working part-time and 46.8 years for those employed on a casual basis.

#### Position, Place of Work and Area of Responsibility

The type of employment and the roles identified by licensed NPs vary. When asked to self-identify their position at the time of registration in 2005, more than three-quarters (76.8%) indicated *nurse practitioner*.

The remaining licensed NPs self-identified their primary role as manager (2.9%), staff nurse/community health nurse (8.9%), instructor/professor/educator (3.5%) and other positions/not stated (7.9%). These statistics exclude Saskatchewan data, as the regulatory body considers all licensed NPs with employment to be working in a nurse practitioner role.

Licensed NPs self-identifying their position as *instructor/professor/educator* in 2005 were the eldest, on average, at 48.9 years. Those in *nurse practitioner* roles were 45.0 years, on average, in 2005.

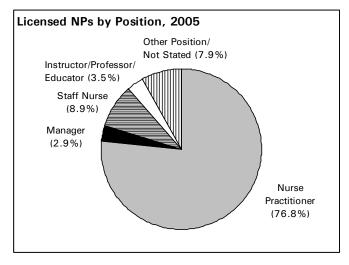


Figure 2. Self-Identified Positions of Licensed NPs With Employment, Canada, 2005

Sources: CIHI/RNDB and provincial and territorial RN regulatory authorities.

#### Notes:

Figure 2 excludes Saskatchewan data. In Saskatchewan, all licensed NPs are considered employed in nurse practitioner roles.

More than 40% (42.5%) of licensed NPs employed in 2005 worked in the community health sector, with more than one-quarter (26.9%) in the hospital sector and 2.7% in the nursing home/long-term care sector. The remaining licensed NPs worked in other types of facilities or failed to state their place of employment.

Table 5. Licensed NP Workforce by Area of Responsibility, Canada, 2005

	Counts	%
DIRECT CARE	860	88.7%
Medicine/Surgery	31	3.2%
Psychiatry/Mental Health	11	1.1%
Pediatrics	16	1.6%
Maternity/Newborn	20	2.1%
Geriatrics/Long-Term Care	35	3.6%
Critical Care	29	3.0%
Community Health	80	8.2%
Ambulatory Care	47	4.8%
Occupational Health	7	0.7%
Operating Room/Recovery Room	< 5	_
Emergency Care	41	4.2%
Several Clinical Areas	33	3.4%
Oncology	< 5	_
Rehabilitation	< 5	_
Other Direct Care	505	52.1%
ADMINISTRATION	33	3.4%
EDUCATION or RESEARCH	42	4.3%
NOT STATED	35	3.6%
Total	970	100.0%

Sources: CIHI/RNDB and provincial and territorial RN regulatory authorities.

#### Notes:

<5 The number of licensed NPs is between 1 and 4; value is removed to protect privacy and confidentiality.

Totals include only licensed NPs employed in nursing at the time of registration (n = 694 in 2003, n = 832 in 2004 and n = 970 in 2005).

Please refer to Appendix A for more information regarding the collection, comparability and reporting of licensed NP data.

More than 80% (88.7%) of licensed NPs worked in direct care in 2005, with 3.4% in administration and 4.3% in education or research.

Approximately 8% (8.2%) of licensed NPs identified *community health* as their primary area of responsibility.

Over half (52.1%) of all licensed NPs indicated their primary area of responsibility as *other direct care* in 2005. This was consistent across all jurisdictions, as *other direct care* was the most frequent response in five jurisdictions, ranking no lower than fourth in any province or territory.

That so many licensed NPs selected other direct care as their area of responsibility signals that further work is required to better understand licensed NP practice.

CIHI and the CNA will continue to work with provincial and territorial regulatory bodies to develop the data elements needed to provide more comprehensive practice information for the licensed NP workforce.

<sup>-</sup> Figure less than 0.6%

## Appendix A Methodological Notes

## **Methodological Notes**

The following information should be used to ensure a clear understanding of the basic concepts that define the licensed nurse practitioner (NP) data provided in this report, of the underlying methodology of the data collection and of key aspects of the data quality.

The Methodological Notes included here are an abbreviated version; readers are encouraged to review the complete Methodological Notes from the Canadian Institute for Health Information publication *Workforce Trends of Registered Nurses in Canada, 2004,* available from CIHI's Web site at www.cihi.ca.

#### Overview

The NP statistical profile was developed by supplementing existing data from the Registered Nurses Database (RNDB) at CIHI with data from provincial and territorial regulatory authorities.

The number of NPs identified in this analysis, therefore, matches the number of NPs listed by provincial and territorial registers. This is different from previous analyses from CIHI, in which only the number of registered nurses self-reporting their position as *nurse practitioner* was reported. The method used here is a more accurate representation of the NP workforce in Canada.

## **General Methodology**

#### **Target Population**

The target population for this analysis is all licensed nurse practitioners (NPs)<sup>4</sup> registered in the jurisdictions of Newfoundland and Labrador, Nova Scotia, New Brunswick, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, the Northwest Territories and Nunavut in the 2005 registration year.

The analysis is restricted to these 10 provinces and territories, because these are the only jurisdictions in Canada that licensed NPs separately from other registered nurses in the 2003 and/or 2004 and/or 2005 registration years.

The jurisdictions of Prince Edward Island and the Yukon Territory did not have separate NP designation and are therefore excluded from the analysis. For Quebec, NP legislation and regulations came into effect late in 2005 and thus no data was available at the time of the publication.

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<sup>4.</sup> In this analysis, a nurse practitioner is defined as a registered nurse with additional education in health assessment, diagnosis and management of illnesses and injuries, including prescribing drugs.

#### **Data Sources and Collection**

The data used in this analysis are from CIHI's Registered Nurses Database (RNDB) and, where necessary, from provincial and territorial RN regulatory authorities.

A data agreement governs the collection of data for the RNDB. Under the current agreement, each regulatory authority submits 20 data elements collected from each registered nurse. These data were used in the analysis of the NP workforce.

For the jurisdictions of New Brunswick (2003 to 2005 data), Saskatchewan (2004 and 2005 data) and Alberta (2003 to 2005 data), NP data were not submitted for inclusion in the Registered Nurses Database. For these jurisdictions, CIHI made a separate data request for record-level licensed NP data.

## **Data Quality**

CIHI assesses five dimensions of data quality: accuracy, comparability, timeliness, usability and relevance. The dimensions of greatest relevance to this analysis—accuracy and comparability—are discussed at greater length here. More information regarding the data quality of the Registered Nurses Database is available upon request to nursing@cihi.ca.

#### **Accuracy**

Accuracy is an assessment of how well the data reflect reality. For this analysis, this is an assessment of how closely the data presented here reflect the target population of all registered nurses with the additional education, training and/or experience required for licensure as an NP in their jurisdictions. Accuracy is presented in terms of under- and over-coverage.

#### Under-Coverage

Under-coverage results when data that should be included in this analysis are not included. At present, there are no known sources of under-coverage in this analysis.

#### Over-Coverage

Over-coverage is the inclusion of data beyond the target population. These are data that should not be included. At present, there are no known sources of over-coverage in this analysis.

#### Comparability

Comparability measures how well the data compare to data from other sources. Because CIHI data were supplemented with provincial and territorial regulatory authority data, the total numbers presented in this analysis match published provincial and territorial statistics.

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#### Six-Month Cut-off

In an effort to produce timely statistics, CIHI collects registered nurse data at the 6-month mark of the 12-month registration year. Although CIHI analyses have found that typically 95 to 98 percent of all registrations occur within the first 6 months of the registration year, the data supplied by provincial and territorial regulatory bodies represent all 12 months. Due to the six-month cut-off, detailed information was not available for seven licensed NPs: one registered in Newfoundland and Labrador in 2003, two registered in Newfoundland and Labrador in 2005, two registered in Nova Scotia (2003 data) and two registered in the Northwest Territories/Nunavut (2004 data). The 2003 totals include three blank records, while the 2004 and 2005 totals include two blank records each.

## **Privacy and Confidentiality**

The Privacy Secretariat at CIHI has developed a set of guidelines to safeguard the privacy and confidentiality of data received by CIHI. The document *Privacy and Confidentiality of Health Information at CIHI: Principles and Policies for the Protection of Health Information and Policies for Institution-Identifiable Information* may be obtained from CIHI's website. These policies govern the release of data in publications, media releases, CIHI's website and through ad hoc requests and special studies.

In compliance with these guidelines, CIHI prevents residual disclosure by aggregating RNDB data for release in publications and ad hoc requests. Cells with counts from 1 to 4, for which further aggregation is either inappropriate or unfeasible, are suppressed before release. These policies ensure the confidentiality of all RNs (or in this case, NPs) regardless of province or territory, size or place of work.

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