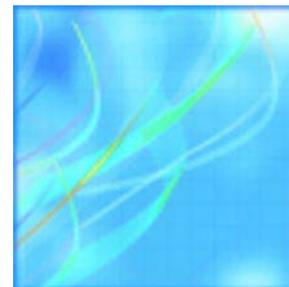


# Health Care Professionals and Official-Language Minorities in Canada



2001 and 2006



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- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0<sup>s</sup> value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- p preliminary
- r revised
- x suppressed to meet the confidentiality requirements of the *Statistics Act*
- E use with caution
- F too unreliable to be published

## **The Author**

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# Introduction

The purpose of this report is to provide a portrait of the pool of certain groups of health care professionals who serve or who may be able to serve official-language minority communities (OLMC). In particular, it compares the proportional distribution of these professionals to that of minority populations.

In the *Roadmap for Canada's Linguistic Duality 2008-2013: Acting for the Future* announced by the minister of Official Languages in June of 2008, Health Canada mandated Statistics Canada to trace the state of affairs concerning health care professionals able to serve the official-language minority population in their language.<sup>1</sup>

The objective for Health Canada is to be able to better inform Canadians on the extent of the availability of health services in the official minority language throughout the regions of Canada in which there is a need for being served by a health care professional able to communicate with the patient in the preferred language of the latter. The results of this analysis and of any future study will serve to inform the managers of Health Canada programs aiming to increase the offer of health care workers in regions with the greatest needs.

To that effect, we have analysed linguistic data from the 2001 and 2006 Censuses to produce statistics on the number of doctors, nurses, psychologists, social workers and other health care professionals in each province and territory who belong to the minority population, use the minority language at work, or report being able to conduct a conversation in that language. This information was then compared to the size of the official-language minority community in each jurisdiction. Comparing the relative weights of the various health care professionals and the minority population in these areas provides useful information for evaluating the relative situation of OLMCs in the country.

The situation of OLMCs varies between regions in Canada. Demographic characteristics may differ along with socio-economic conditions and the type of community. This diversity is also found in the size and density of the minority population and its distance from major centres. The statistics presented in this report have been calculated at the provincial/territorial level as well as for sub-provincial regions in those provinces where the largest number of official-language minority persons live, specifically, New Brunswick, Quebec and Ontario.

The data analysed in this report are obtained from the long census form, completed by one fifth of all Canadian households, except in Nunavut and the Northwest Territories, where it is completed in each and every household. Due to the small size of the OLMCs in certain provinces, territories and sub-provincial regions, a lesser degree of precision can be achieved in estimating the size of the medical professional staff pool available to minority populations using official languages.

The pool of health care professionals available to members of OLMCs is measured in three ways. The first corresponds to a minimum estimate based on the health care professionals belonging to the OLMC. The second, middle measurement, documents the predominant or regular use of the minority language at work by these professionals. The third measurement corresponds to a maximum estimate based on the ability of health care professionals to conduct a conversation in the minority language. The latter estimate therefore represents a potential pool of health care providers in the minority official language with knowledge of the official minority language who, for some, use very rarely (less than regularly) or never use the official minority language at work but who could eventually offer their services to patients speaking that language. Furthermore, the estimate based on knowledge of the minority language includes both professionals for whom that language is their mother tongue or first official language spoken, as well as those whose first official language spoken is the other official language but who are able to carry on a conversation in the minority language.

1. Between 2003 and 2008, Health Canada invested 75 million dollars into the education of health care professionals in order to increase the number of health care professionals able to serve the OLMC. In the *Roadmap*, during the years 2008 to 2013, Health Canada will be investing even greater funds to instruct Francophone health care professionals outside Quebec and to improve the linguistic competence of health care professionals in Quebec to serve their Anglophone clients.

Among the four groups of health care professionals considered in this report, nurses represent the largest group in terms of numbers. This group includes all registered nurses but not licensed practical nurses and nurse's aides.

General practitioners and family doctors make up the largest group of doctors. Specialist doctors are excluded from our analysis.

Language is the principal working tool of psychologists during consultations with their clients. For this reason, it was important to consider them as a separate group of health care professionals able to communicate in the minority language, even though there are fewer of them compared to the other health care professional groups.

The same is true of social workers. Furthermore, there are more social workers than general practitioners.<sup>2</sup>

Lastly, a fifth group, containing all other health care professionals not included in the other groups, is included in the analysis. Being a residual group, it is doubtlessly more heterogeneous than the other groups.

### Context

According to the Société Santé en français, the quality of health services depends largely on the ability of people to be able to communicate in their own language. Understanding and being understood are crucial to the relationship between the individual and the health care provider. Communication is, and always will be, a key factor in the health of individuals and their communities.<sup>3</sup> (p.1). In the Summary of the 2008-2013 action plan, the Société believes, among other things, that the development and recognition of the language proficiency of health care professionals and information to users play a crucial role in the placement, recruitment and retention of Francophone health care professionals (*ibid.*, p.4). Information on the number of health care professionals who use the minority language at work or who state that they are able to conduct a conversation in that language represents one of the pillars for developing a service offer to official-language minority communities.

In Quebec, Carter (2008) observes that "the active offer of services in English by professionals in the health and social services system is an important indicator of the ability of the [health and social services] system to adapt to the needs of Anglophone communities".<sup>4</sup> Moreover, the Community Health and Social Services Network of Quebec notes that "access to the full range of health and social services in English continues to pose challenges for service providers and communities alike in many regions of the province, including neighbourhoods in Montreal".<sup>5</sup>

Examining statistics on knowledge of the official minority language and use of that language at work by members of certain groups of health care professionals makes it possible to develop a portrait of the pool of professionals offering or likely to be able to offer services in that language. The report mentioned earlier points out that after several decades without health services in French, people have come to believe that it is impossible to receive them (*ibid.*, p. 5).

2. However, not all work in the health sector.

3. Société Santé en français, 2007. Plan directeur 2008-2013, p.1. Available at: [http://santefrancais.ca/index.cfm?Repertoire\\_No=-661868150&voir=cnetre\\_detail&id=3218](http://santefrancais.ca/index.cfm?Repertoire_No=-661868150&voir=cnetre_detail&id=3218) (October 5, 2008).

4. Carter, J., 2008. "What Future for English-Language Health and Social Services in Quebec?" in R.Y. Bourhis (Ed.) *The Vitality of the English-Speaking Communities of Quebec: From Community Decline to Revival*. Montréal, Québec: CEETUM, Université de Montréal, p. 96.

5. Community Health and Social Services Network, 2008. *Investing in the Health and Vitality of Quebec's English-Speaking Communities: A Community Action Plan 2008-2013*, p. 1.

# Section 1

## General information

### 1.1 Health care professionals<sup>1</sup> - a few statistics

This study analysed four specific groups of health care professionals in detail.<sup>2</sup>

The groups are:

1. General practitioners and family doctors;
2. Registered nurses;
3. Psychologists;
4. Social workers.

The information concerning all other health care professionals will be presented further in this report.<sup>3</sup>

#### 1.1.1 General practitioners and family doctors

In 2006, there were a total of 44,495 general practitioners and family doctors<sup>4</sup> in Canada, 92.5% or 41,140 of whom work in Canada.<sup>5</sup> Their distribution across the provinces is closely aligned with the distribution of the total population, except in Quebec where the relative share of physicians (25.6%) is higher

1. These professionals are not necessarily active in the labour force.
2. Due to their small numbers in certain provinces, and the similarities in their functions, psychologists and social workers will be combined in section 2 of this report.
3. The Canadian Institute for Health Information (CIHI) publishes annual statistics on the number of several groups of health care professionals. However, the comparison of the numbers published by CIHI with those of Statistics Canada do not entirely match the definitions of health care providers. Moreover, since CIHI publishes statistics every year and since the Census only occurs every 5 years, CIHI uses estimations of the population which differ from the numbers reported by the Census.
4. In the rest of the document, we refer to them as "doctors" or "physicians" for the sake of space.
5. Another 3,350 doctors are enumerated in the Census, but they work outside of Canada.
6. Because of the small number of inhabitants in Nunavut, and of the effect of random rounding, the ratio tends to vary greatly, and in some cases to even double (from 19 to 38).
7. "Registered nurse" is a term given to both male and female workers, and so does not allow one to make a distinction based on sex.

than that of the total population (23.8%) and in Ontario where the relative share (37.0%) is lower than for the total population (38.5%) (see Chart 1.1 and 1.2).

Nationally, there are 132 doctors per 100,000 people (see Table 1.1). This ratio is slightly higher in British Columbia (134), Newfoundland and Labrador (137), Quebec (142), Nova Scotia (153) and, especially, the Yukon (331). In the other provinces and territories, the ratio is equal to or slightly lower than the national average, the lowest ratio being in Nunavut with 85 doctors per 100,000 people.

These ratios are generally very close to the ratios in 2001, with a few exceptions. In the Yukon, the total number of doctors rose from 70 in 2001 to 331 in 2006, a much higher increase than the slight rise in the territory's population between 2001 and 2006, which explains the sharp jump in the ratio. Similarly, in Nunavut, the number of doctors almost quintupled (from 19 to 85),<sup>6</sup> while the population rose by 10%. In the other provinces, the change in the ratio between 2001 and 2006 was in line with the change in population or remained stable. All of the doctors work in the health care or social assistance field.

#### 1.1.2 Registered nurses<sup>7</sup>

For every doctor, there are about six nurses for a total of 288,500 nurses living in Canada in 2006. Over 95% work in Canada (275,145 people). In all provinces except Quebec, Ontario and British Columbia, the relative share of nurses among all nurses in the country is slightly higher than the province's share of the population. Nationally, there are 881 nurses per 100,000 Canadians. The highest ratio is in Prince Edward Island (1,203), while the ratios in Quebec, Ontario and British Columbia are 825, 825 and 854 nurses per 100,000 people respectively. Nunavut has the lowest ratio at 648 nurses per 100,000 inhabitants. In all provinces and territories, there were more nurses per 100,000 inhabitants in 2006 than in 2001, but the rate of growth varied somewhat from one province to the next. As with doctors, the Yukon and Nunavut

saw the greatest growth in the number and the ratio of nurses (over 30%).<sup>8</sup>

Some nurses (5.2%) do not work in health care or social assistance institutions, but rather in a school, for example, or in a large company. This analysis includes all nurses, regardless of the type of institution in which they work.

### 1.1.3 Psychologists

Canada has 19,570 psychologists, 18,010 of whom report that they have a place of work in Canada (92.0%). A very high proportion of them work in Quebec (39.2%), although the Quebec population represents only 23.8% of the population of Canada. This is the only province in which the relative share of psychologists among all psychologists in the country is higher than that of the population. The ratio of psychologists per 100,000 people is 95, while the national average is only 58.<sup>9</sup> Once again, Nunavut has the lowest ratio at only 17 psychologists per 100,000 people, followed by Prince Edward Island with a ratio of 22. The other provinces have between 36 and 54 psychologists per 100,000 individuals. Such small numbers are not adequate enough, to conclude whether the change between 2001 and 2006 is based on sample error and random rounding or if it shows a real trend.

8. The random rounding process, used to estimate small numbers, may cause great differences in ratios over those two territories between 2001 and 2006.

9. We observed a similar situation in 2001 although the ratio was 88 psychologists per 100,000 people and these psychologists represented 39.7% of all psychologists in Canada.

It is relatively common for psychologists to work in a sector other than health care or social assistance institutions, such as schools. Accordingly, slightly more than 1 in 4 psychologists work outside health care institutions (26.8%).

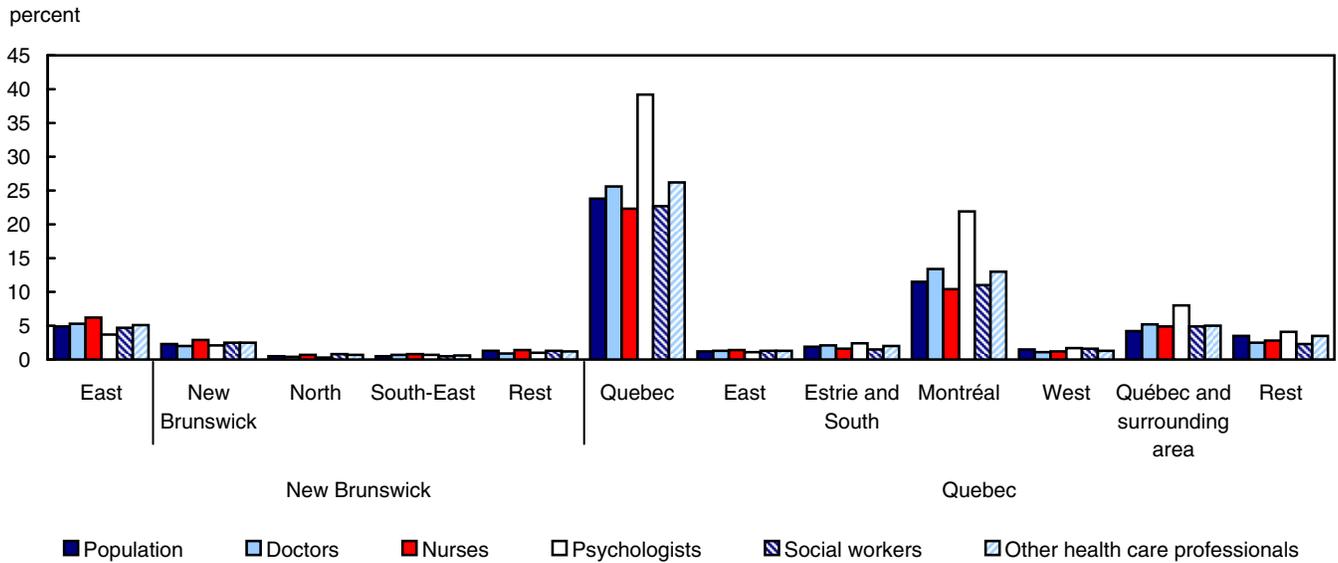
### 1.1.4 Social workers

There are a total of 51,590 social workers, of which 95.2% work within Canada. Ontario and Manitoba are the provinces in which the relative share of these professionals within the total population of social workers in the country exceeds that of the province's total population. A similar situation, although to a lesser degree, exists in Newfoundland and Labrador, New Brunswick, Saskatchewan, the Yukon and the Northwest Territories. On average, there are 159 social workers per 100,000 inhabitants. The largest number of these workers (348) per 100,000 inhabitants is in the Yukon, but the ratios in Nunavut and the Northwest Territories are also above the average. However, the Yukon lost one-third of its social workers between 2001 and 2006.<sup>10</sup>

Social workers often work in places other than health care and social assistance institutions. Indeed, 27% of all social workers in Canada are in this situation. The majority of them report working for a provincial or municipal government.

10. Because of the small numbers and the combined effect of random error and random rounding, these ratios tend to vary greatly.

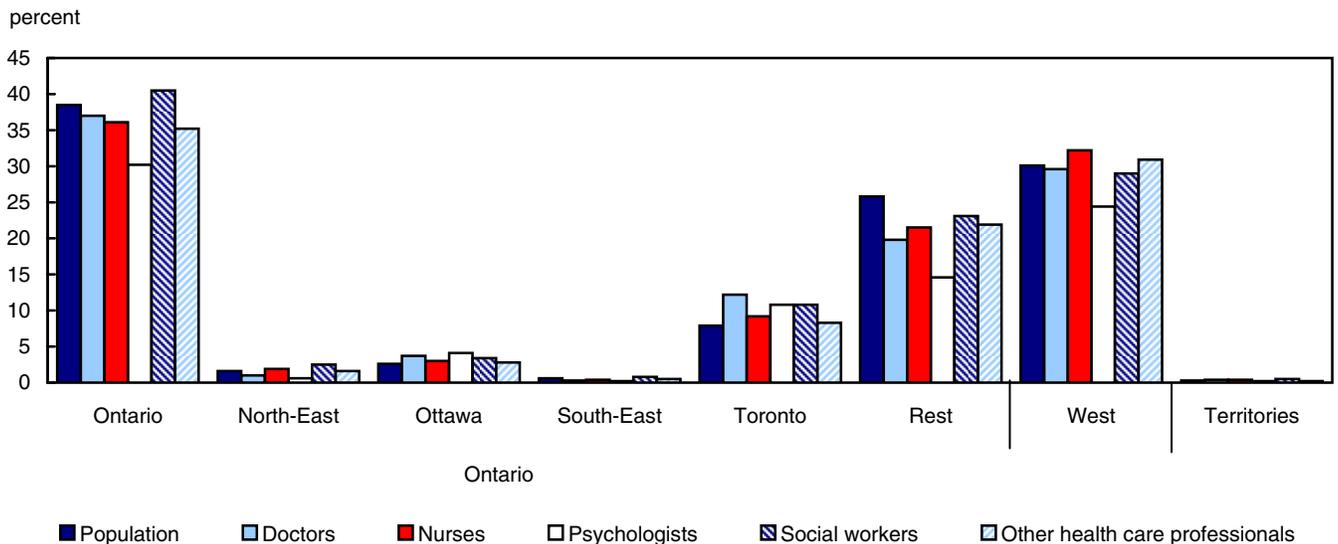
**Chart 1.1**  
**Relative share of the Canadian population and of specific groups of health care professionals in each regions, provinces and territories, 2006**



**Note(s):** The East of Canada includes Newfoundland and Labrador, Prince Edward Island and Nova Scotia. West of Canada includes Manitoba, Saskatchewan, Alberta and British-Columbia. The Territories include the Yukon, the Northwest Territories and Nunavut. Please refer to the appendix for the descriptive list of regions and their census divisions.

**Source(s):** Statistics Canada, Census of population, 2006.

**Chart 1.2**  
**Relative share of the Canadian population and of specific groups of health care professionals in each regions, provinces and territories, 2006**



**Note(s):** The East of Canada includes Newfoundland and Labrador, Prince Edward Island and Nova Scotia. West of Canada includes Manitoba, Saskatchewan, Alberta and British-Columbia. The Territories include the Yukon, the Northwest Territories and Nunavut. Please refer to the appendix for the descriptive list of regions and their census divisions.

**Source(s):** Statistics Canada, Census of population, 2006.

Text table 1.1

**Ratio for specific groups of health care professionals per 100,000 inhabitants, provinces, territories, Canada and Canada less Quebec, 2001 and 2006**

	Health care professionals									
	Doctors		Nurses		Psychologists		Social workers		Other health care professionals	
	2001	2006	2001	2006	2001	2006	2001	2006	2001	2006
ratio										
Newfoundland and Labrador	142	137	960	1,149	28	45	151	179	1,719	1,843
Prince Edward Island	86	97	948	1,203	15	22	109	101	1,923	2,153
Nova Scotia	148	153	948	1,066	49	47	138	141	1,959	2,268
New Brunswick	98	115	959	1,121	43	53	149	172	1,835	2,215
Quebec	135	142	777	825	88	95	153	150	1,993	2,259
Ontario	139	127	772	825	41	45	170	166	1,630	1,874
Manitoba	146	121	947	1,061	34	36	198	197	2,285	2,421
Saskatchewan	116	114	879	992	28	42	172	179	2,192	2,354
Alberta	139	131	765	989	54	54	154	149	1,906	2,096
British Columbia	145	134	715	584	44	45	139	134	1,868	1,956
Yukon	70	331	806	1,110	35	50	508	348	1,648	1,722
Northwest Territories	94	97	943	1,047	67	61	256	207	1,348	1,595
Nunavut	38	85	506	648	38	34	244	222	769	801
<b>Canada</b>	<b>136</b>	<b>132</b>	<b>789</b>	<b>881</b>	<b>53</b>	<b>58</b>	<b>160</b>	<b>157</b>	<b>1,835</b>	<b>2,052</b>
<b>Canada less Quebec</b>	<b>136</b>	<b>129</b>	<b>793</b>	<b>898</b>	<b>42</b>	<b>46</b>	<b>162</b>	<b>159</b>	<b>1,785</b>	<b>1,988</b>

**Note(s):** The appendix contains a table showing the change in numbers for all health care professionals in 2001 and 2006.

**Source(s):** Statistics Canada, Census of Population, 2001 and 2006.

In contrast, Newfoundland and Labrador and the Yukon had more doctors, nurses and social workers than the national average. In both Newfoundland and Labrador and Nunavut, there has been a substantial increase in the number of doctors and nurses.

## 1.2 Linguistic information contained in the Census of Population

The Census of Population collects five types of linguistic data on official languages: mother tongue, language used most often or regularly at home, language used most often or regularly at work, and knowledge of official languages, as well as the derived variable “first official language spoken” (FOLS). However, this range of information does not provide an accurate measure of the supply or demand for health care services in the minority language.

Without directly asking respondents if they have obtained or requested health care in the minority language, the estimate of the supply or demand for health care services can only be approximated using the census data. In this regard, we know from the post-censal Survey on the Vitality of Official-Language Minorities (SVOLM) that 53% of French-speaking adults outside Quebec and 75% of English-speaking adults in Quebec consider it very important or important

to receive health care services in the minority language. Using the derived variable of “first official language spoken”, for example, provides the highest estimate of the official-language minority population in a given province, but probably overestimates the number of people who want or might ask to receive services in that language. In contrast, using information on language used at home probably underestimates the population that might ask to receive services in that language.

The same holds true for estimating the population of health care professionals likely to be able to provide services in the minority language. The ability to conduct a conversation in the minority language is not necessarily the best measure of the ability to provide health services in that language. Moreover, the use of the minority language at work on, at least, a regular basis very likely underestimates the ability to offer services in that language; some health care professionals do know the minority language, but use it rarely (less than on a regular basis) or not at all at work.

In order to estimate the proportion of the population likely to request services in the minority language and that of health care professionals who might be able to provide services in that language, this report will consider three types of information. For estimating the official-language minority population, we will use

the data on first official language spoken. For health care professionals, we will present information on the use of the minority language at work as well as on knowledge of that language, as measured in the census, specifically, the ability to carry on a conversation in the minority language.

### 1.2.1 First official language spoken

The data on *first official language spoken* (FOLS) is derived from the responses to questions on knowledge of official languages, mother tongue and language spoken most often at home. This variable is especially useful because, in the vast majority of cases, it can be used to classify allophones (persons whose mother tongue is neither English nor French) into one of the two official-language groups.

Based on the definition of FOLS, a person who knows only French is classified as Francophone. If the individual knows both official languages and his mother tongue is French, or French in addition to a third language, then he is also classified as Francophone. If his mother tongue is a third language but he uses French, alone or with a third language most often at home, then he is included among Francophones. Thus, to the extent that these allophones are counted among those in either of the two official-language populations, the concept of first official language spoken offers a more inclusive definition of the concepts of “Anglophone” and “Francophone”.

In 2006, Quebec had 218,555 people who listed English **and** French as their FOLS because it was not possible using the census data to assign them to one or the other of these languages. Outside Quebec, there were 113,370 such individuals. Both within and outside Quebec, 9 out of 10 people in this situation had a mother tongue that was not English or French. For analysis purposes in this report, this population is distributed equally among the two official languages within Quebec, as well as outside of the province.

Note that the concept of first official language spoken is not intended to be an accurate measure of proficiency or ease in that language.

### 1.2.2 Use of the minority language at work

The responses to the questions on the Census dealing with language at work (“most often” and “regularly”) are about actual use in the workplace. Using this

information therefore provides a “realistic” portrait to the extent that it focuses on the presence of a given language in the work environment. The case we are interested in is the presence of the minority language in an environment where health care professionals are likely to interact with members of a given language group. In this report, we will study both components of the question regarding the language used at work separately. We will also create a synthetic variable from the two components of the language used at work. Thus, persons who report using the minority language exclusively or predominantly are considered along with those who report using it regularly but not predominantly. For example, a person who reported using English most often at work and French regularly is part of the subpopulation studied because French is therefore part of the individual’s linguistic repertoire at work.

### 1.2.3 Mother tongue and knowledge of official languages

Mother tongue has often been used to assign persons to an ethnic or linguistic group based on the assumption that the language transmitted from one generation to another is, among others, one of the defining elements for belonging to a group characterized by a common language. The information on knowledge of official languages comes from the respondents’ self-evaluation of language knowledge, but we do not know if the language in question is currently used on a regular basis.

Knowledge of one or both of Canada’s official languages implies a potential for linguistic interaction between the two main language groups. It can therefore be used to describe a hypothetical situation in which individuals who know French or English use that language to communicate with other people for whom it is the main language but who are unable to express themselves in the other official language. The idea of knowing a language well enough to carry on a conversation makes it possible to use this information to talk about “speakers of a second official language”.

### 1.2.4 Multiple responses

Some Canadians reported more than one mother tongue or more than one language spoken most often at home. Outside Quebec, in 2006, 0.3% of Canadians reported having French and one other language,

usually English, as mother tongues. In Quebec, the proportion of respondents reporting having English and one other language as mother tongues was 0.9%.

In addition, outside Quebec, 0.2% reported speaking French and another language most often at home, compared to 1.2% for English and another language.

The approach used in this report will include the cases of multiple responses that fall into both the Francophone and Anglophone groups given that the definition of belonging to one group or the other is based on the presence or absence of a language. For the language used at work, all responses mentioning the same language are counted in order to take into account any appearance of the language in a specific field. For example, a respondent living outside Quebec

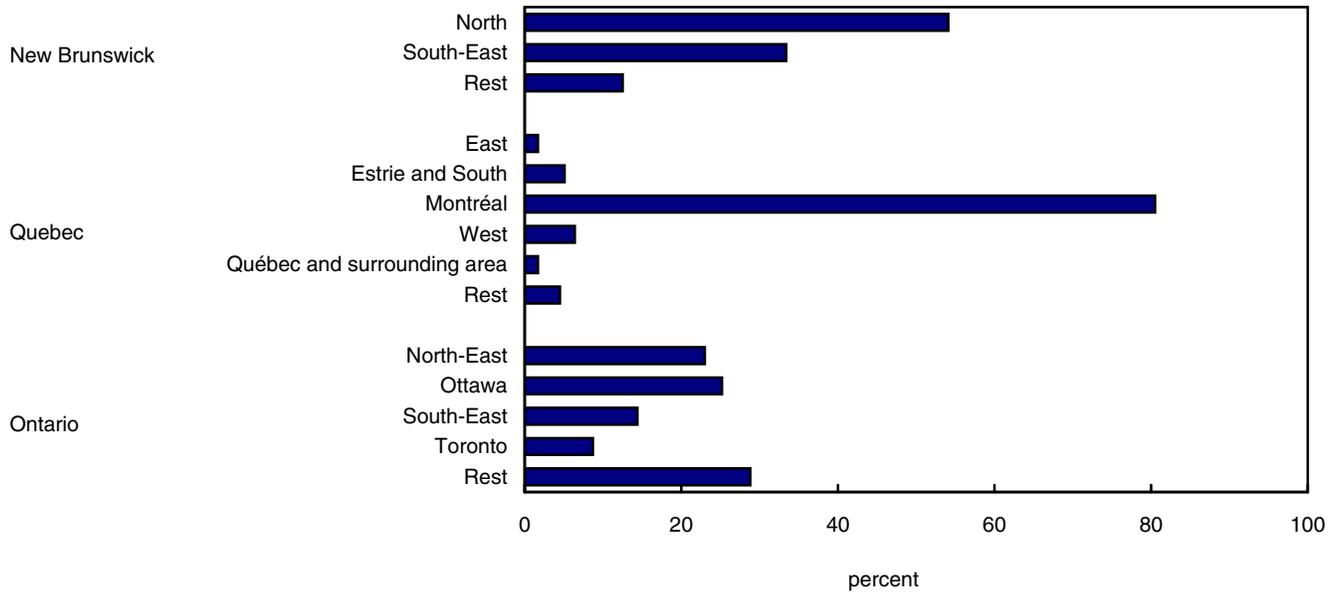
who reported using English most often at work, but who uses French regularly will appear in the category of persons who use French at work because French is present in his linguistic repertoire. A health care professional in Quebec who uses French most often at work, but who uses English regularly will appear in the category of professionals working in English because his linguistic repertoire includes English. Likewise, his colleague who uses English most often, as well as French or another language regularly at work is also part of the professionals who use English at work.

### 1.2.5 Geographic level of analyses

Preliminary analysis showed important differences in the results at the sub-provincial level. To get a more accurate picture of the availability of health care professionals working in the minority language or simply with knowledge of that language, the three provinces with the largest number of persons of the minority language were subdivided into regions. Three regions were identified in New Brunswick, specifically, the North-East, South-East and the Rest of the province.<sup>11</sup> Ontario was subdivided into five regions: North-East, South-East, Ottawa census division, Toronto census division, and the Rest of the province. For Quebec, the regions identified were East of Quebec, Estrie and South of Quebec, Québec and surrounding area, West of Quebec, Montréal census metropolitan area (CMA), and the Rest of the province.

11. The Northumberland Census division (CD) was included in the Rest of New Brunswick because we have reproduced, in this document, the definition for regions used for the dissemination of the first results of the Survey on the Vitality of Official-languages Minorities (SVOLM), a definition recommended at the very beginning by the Advisory Committee for this survey. This CD could have been included either in the South-East or the North of the province. In 2006, the adult French-speaking population, according to the definition used in the current report, constituted 77.4% of the North, 48.7% of the population of the South-East, and 7.5% of the Rest of the province. If the Northumberland CD were to be excluded from the population living in the Rest of the province, this last proportion would be reduced to 4.9%. The proportion of French speakers in this CD reached 26.3% in 2006, a percentage notably higher than that observed in other CDs in the same region, where the maximum was 10%. Moreover, a portion of the Census subdivisions excluded as part of this CD borders the South-East (Hardwick, Rogersville), whereas two more subdivisions (Neguac and Alnwick) are closer to the North region. The Northumberland CD is also included in the same economic region as the CDs of Restigouche and Gloucester, classified in the North of the province.

**Chart 1.3**  
**Regional distribution of the minority population by first official language spoken in New Brunswick, Quebec and Ontario, 2006**



**Note(s):** Please refer to the appendix for the descriptive list of regions and their census divisions.  
**Source(s):** Statistics Canada, Census of Population, 2006.

For the other provinces and territories with a small minority-language population, there are data confidentiality issues due to the dissemination of small numbers as well as higher rate of sampling errors. This

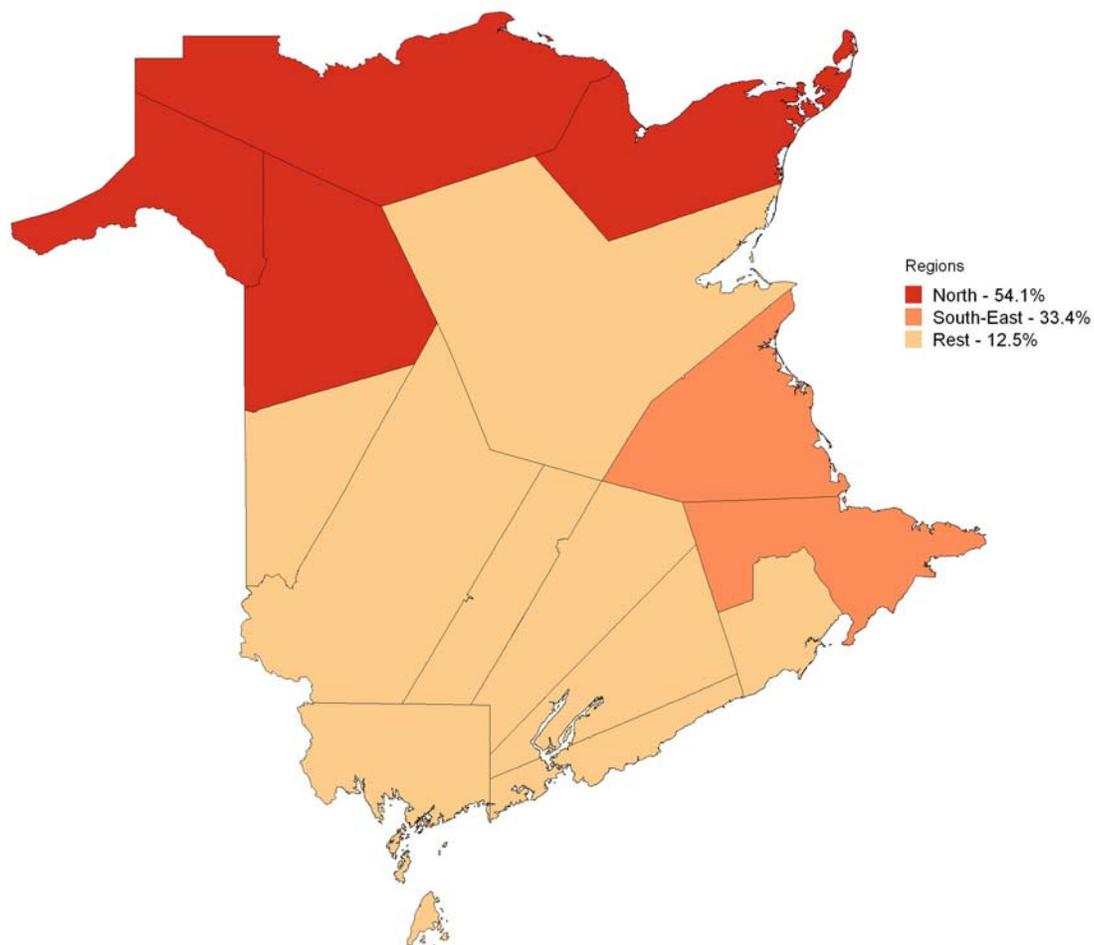
situation prevents us from presenting statistics on the numbers of the specific groups of health professionals on a sub-provincial basis for these other regions.

## 1.2.6 Maps

### New Brunswick and its regions

Map 1.1

Proportion of the official language minority population in New Brunswick regions defined by Census divisions, 2006



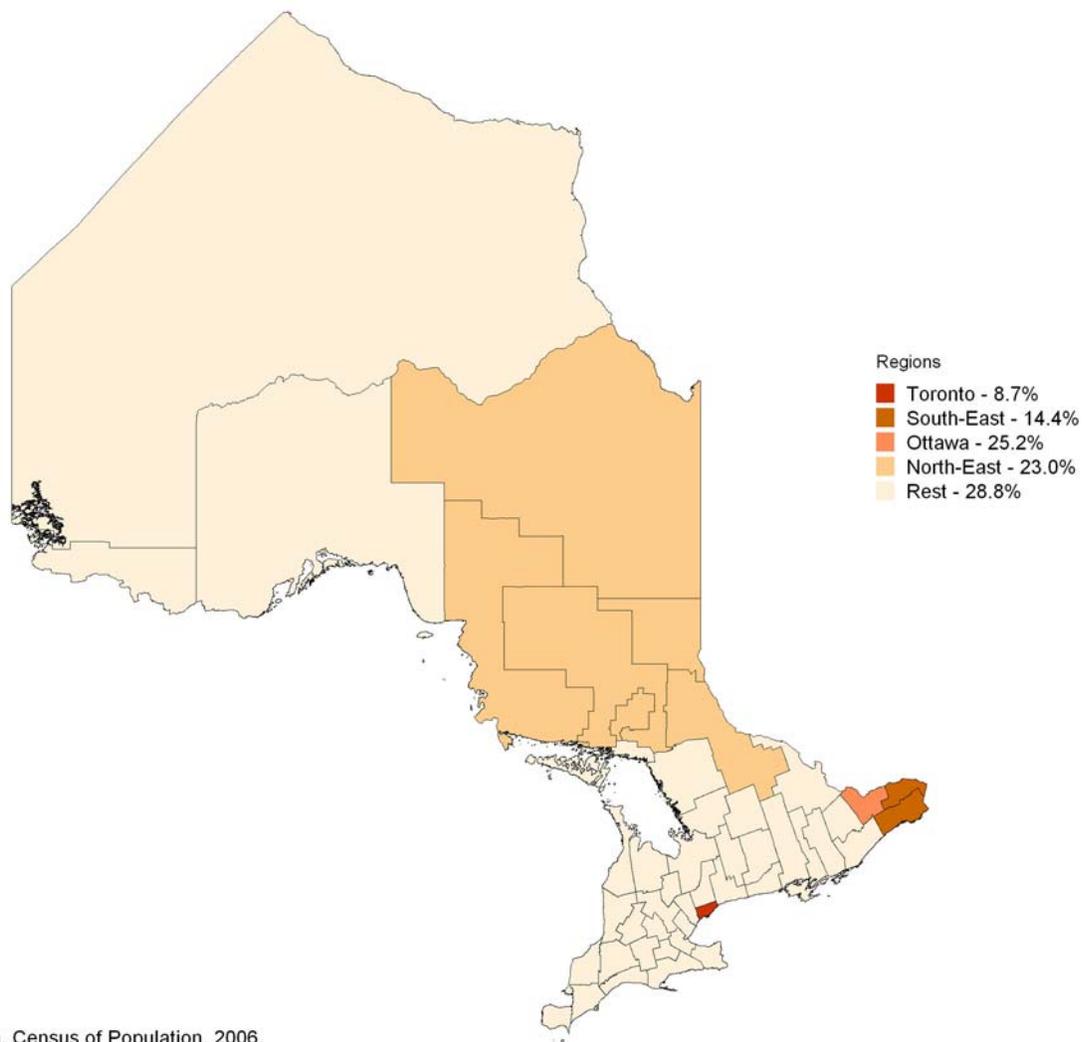
Source: Statistics Canada, Census of Population, 2006.

In New Brunswick, slightly more than half (54%) of the people who have French as their first official language spoken live in the North of the province. One third of this minority population (33%) is located in the South-East and 13% lives in the Rest of New Brunswick.

## Ontario and its regions

Map 1.2

Proportion of the official language minority population in Ontario regions defined by Census divisions, 2006



Source: Statistics Canada, Census of Population, 2006.

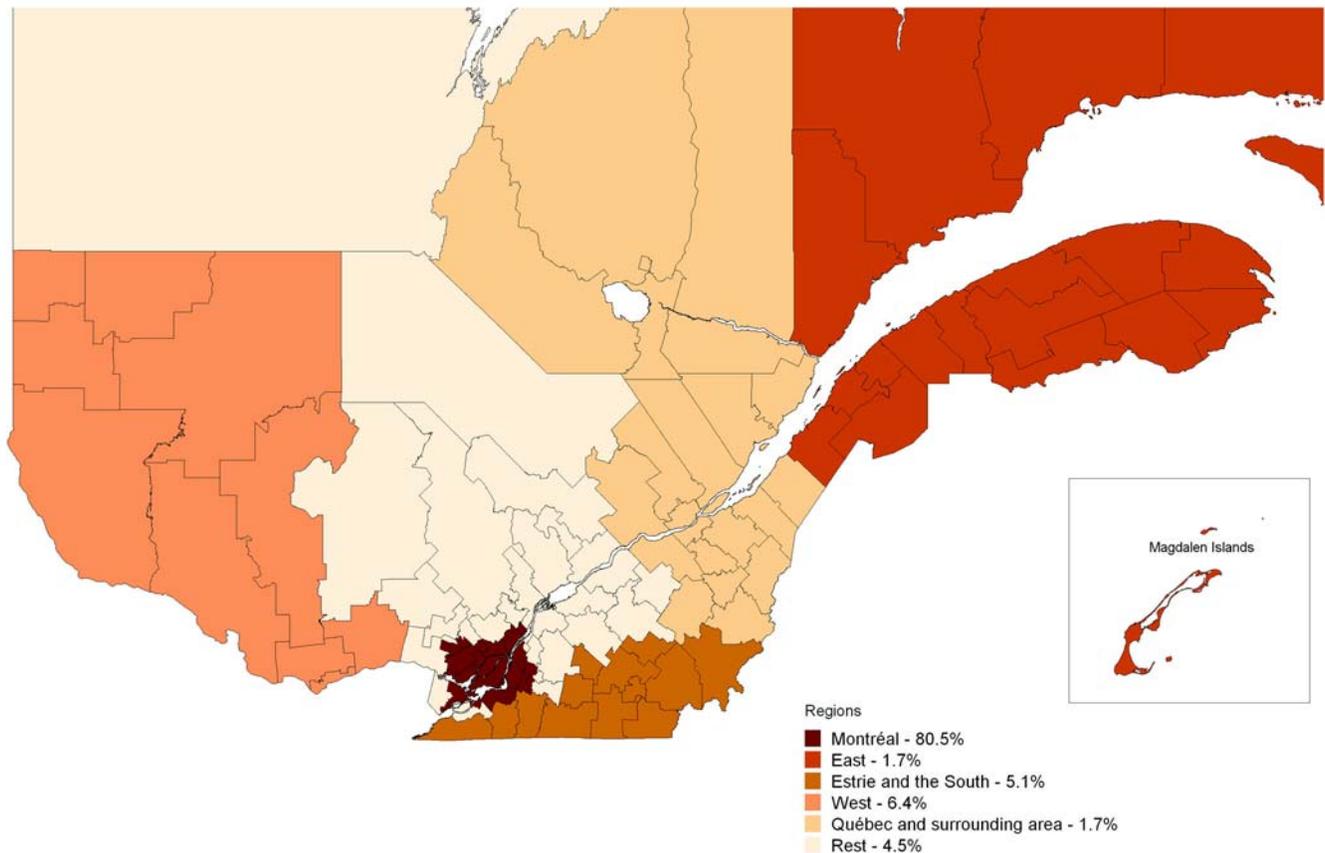
In Ontario, a quarter of the French-speaking population resides in the CD of Ottawa. Almost 4 in 10 individuals who have French as their first official language spoken live in the Eastern regions of the province, including 23% in the North-East and 14% in the

South-East. In Toronto, there are slightly more than 45,000 people representing 8.7% of the population with French as their first official language spoken. For the rest of the province, 3 out of 10 individuals have French as their first official language spoken.

## Quebec and its regions

Map 1.3

Proportion of the official language minority population in Quebec defined by Census divisions, 2006



Source: Statistics Canada, Census of Population, 2006.

In Quebec, the vast majority of the population with English as their first official language spoken lives in the Greater Montréal Area (81%). Five percent of these individuals live in Estrie and South of Quebec, and in

the West of the province. Québec and surrounding area and Eastern Quebec account for just under 2% of the province's English-speaking population.

## Section 2

### *Analysis of the numbers and proportions of selected health care professionals*

#### 2.1 Doctors

In 2006, the population outside Quebec with French as their first official language spoken represented 4.2% of the total population. This was a decrease from the proportion observed in the 2001 Census (4.4%).

Of the 30,595 doctors enumerated outside Quebec in 2006, 1,075 doctors, or 3.5%, had French as their first official language. By comparison, 1,860 doctors, or 6.1%, stated they use French at least regularly at work. Of those 1,860 doctors, 515 use French most often at work, (1.7%), while 1,345 doctors use it regularly (4.4%).<sup>1</sup> The latter number thus includes doctors for whom French is not the first official language spoken. Data on official language knowledge shows that outside Quebec, 6,445 doctors say they can conduct a conversation in French (21.1%). This constitutes a large potential pool of doctors who speak French.

In Quebec, there were 10,540 doctors in 2006, 1,610, or 15.3%, of whom had English as their first official language. The use of English most often at work was reported by 1,535 doctors, or 14.5%. By comparison, a greater number of doctors, 3,860 say they use English on a regular basis at work (36.6%). The number of doctors who stated that they can conduct a conversation in English reached 9,025 doctors in this province (85.5%). It should be noted that 13.4% of the Quebec population have English as their first official language in 2006, an increase from 12.9% in 2001.

1. In this report, the attribute "regularly" refers to part B in the language of work question which asks for other languages used regularly at work in addition to the language used most often.
2. The number of people who use a language at least regularly is the number of workers who declared that they use this language most often (alone or with another language), or regularly (alone or with another language).
3. Random rounding as well as sampling error in the Yukon are however too great to obtain an exact estimate of French-speakers. There was no sampling error in Nunavut and the Northwest Territories since all households answered the entire questionnaire which was, elsewhere, filled in by one household in five.

#### 2.1.1 Eastern Canada

In the provinces east of New Brunswick, 2.6% of the population have French as their first official language, while 1.1% of doctors do. The number of doctors who stated they use French at least regularly<sup>2</sup> at work represented 4.6% of that professional group, while 19.6% of doctors said they could conduct a conversation in French.

The very small number of doctors observed in Newfoundland and Labrador and, in particular, in Prince Edward Island, makes it difficult to give a reliable estimate of the number and proportion of doctors practicing in those provinces. Considering the sampling error and random rounding these numbers are subject to, it is hard to say exactly how many French-speaking doctors there are, how many use French at work or how many doctors know the language.

In Nova Scotia, 25 of the 1,380 doctors, or 1.8%, spoke French as their first official language in 2006. The number of doctors in that province who said they use French at work at least regularly was almost three times higher, 75 doctors or 5.4%. By comparison, 280 doctors in Nova Scotia (20.3%) said they could conduct a conversation in French.

#### 2.1.2 Western and Northern Canada

The situation observed in the territories and the Western provinces is generally quite similar to that observed in the provinces east of New Brunswick. Thus, because of sampling error and random rounding, the numbers of doctors in the three territories are too small to be able to give reliable information on the subject. The French-speaking population was 1.4% in Nunavut, 2.5% in the Northwest Territories and 3.9% in the Yukon. It should be noted, in the three territories, the French-speaking population was 2,615 people in 2006.

In 2006, about 55 doctors in the territories said they could conduct a conversation in French.<sup>3</sup>

In the Western provinces, the relative proportion of the French-speaking population is between 1.5% in British Columbia and 3.8% in Manitoba. Likewise, the proportion of French-speaking doctors ranges from 1.3% in British Columbia to 2.6% in Manitoba. However, because of the very low numbers of both French-speaking doctors and individuals in those provinces, the discrepancy between the proportion of French-speaking doctors and the minority language population is not significant.

As for the use of French at work, only the results observed in British Columbia are reliable enough to make a comparison to the relative proportion of the French-speaking population in the province. Thus, 145 doctors, or 2.7% in that province said they use French at least regularly at work<sup>4</sup> while 1.3% of the population there is Francophone.

Finally, although fewer than 3.0% of doctors use French at work in the Western provinces, the pool of doctors who can speak that language is much greater. Thus, in 2006, over 1,000 doctors (19.3%) in British Columbia said they could conduct a conversation in French. In Manitoba, Saskatchewan and Alberta, those proportions were 15%, 12% and 15% respectively.

### 2.1.3 New Brunswick

In 2006, 32.7% of New Brunswickers had French as their first official language. By comparison, 38.6% of doctors in that province have French as their first official language. Likewise, 45.8% of doctors use French at work at least regularly. Unlike the other provinces outside Quebec, 280 of New Brunswick's 380 doctors (73.7%) who say they use French at work use it most often. This is particularly the case in the North of the province where 120 doctors, or 72.7%, say they use French most often at work while 9.1% use it regularly. Likewise, in South-East New Brunswick, 52.5% of doctors use the minority language most often at work and 20.3% regularly. By comparison, in 2006, 53.0% of the province's 825 doctors said they can conduct a conversation in French. Overall, the level of knowledge of the minority language among New Brunswick doctors is very high. Only in the Rest of New Brunswick is it lower at 20%, while it is 78% in the South-East and 85% in the North of the province.

4. Of those 145, about 15 said most often.

5. Because of random rounding, the actual number could be anywhere between 0 and 9.

### 2.1.4 Quebec and its regions

Among Quebec's regions, Montréal has the highest proportion of doctors who use English at least regularly at work (69.2%). The minority language is used most often at work by a quarter of doctors while 43.7% of doctors say they use it regularly, in addition to French or another language. In this metropolitan region, the English-speaking population was 22.3% in 2006. By comparison, no<sup>5</sup> doctor in the Eastern Quebec region stated that they used English most often at work. The 140 doctors, or so who use English at work, do so regularly in addition to predominately using French (26.9%).

In the Estrie and Southern Quebec region, where 8.7% of the population has English as their first official language, the use of English most often at work was observed among 2.9% of doctors. However, 55% of doctors in this region indicated that they use the minority language regularly at work. Finally, it is in Western Quebec that the greatest discrepancy between the proportion of doctors who say they use English most often at work (4.4%) and that of the population with English as their first official language (13.3%) is observed. However, 63.7% of doctors use English regularly at work.

In Quebec, the proportion of doctors who know English is the highest in the country. The case of the Québec and surrounding area is noteworthy. In this region, 15.1% of doctors say that they use English at least regularly at work, while 76.3% of doctors have a knowledge of the minority language. A similar situation is observed in Eastern Quebec region where the English-speaking population represents almost 4%, 26.9% of doctors indicate that they use English at least regularly at work and 78.8% say that they can conduct a conversation in this language.

### 2.1.5 Ontario and its regions

In Ontario, the French-speaking population represented 4.5% in 2006 while 7.0% of doctors said they use French at least regularly in their work. Moreover, the relative share of French-speaking doctors there was 3.5%. Lastly, 23% of the province's 15,225 doctors said that they can conduct a conversation in French.

Among the regions of this province, it is in Ottawa that the greatest discrepancy is observed between the proportion of doctors who say they use French at

work and the relative weight of the French-speaking population. This discrepancy is no doubt due to the large number of Outaouais Francophones who receive medical care in Ottawa. Thus, while the French-speaking population represented 16.9% of the Ottawa population in 2006, 36.4% of doctors said they use French at least regularly at work<sup>6</sup> and 42% indicated that they can conduct a conversation in French.

6. In Ottawa, 29.8% of doctors use French regularly at work whereas 6.6% report using it most often.

The case of Northeastern Ontario is also noteworthy. Twenty-five percent of its population is French-speaking, while 7% of doctors have French as their first official language. In that region, 30% of doctors say they can conduct a conversation in French. Finally we note that more than 20% of doctors in Toronto say they know French, while 2% of the city's population is French-speaking.

Text table 2.1

Linguistics characteristics and language use of doctors, regions, provinces, territories and Canada less Quebec, 2006

	Official-language minority population by place of residence	Doctors by place of work					
		Total of doctors	Minority official language				Knowledge of the minority official language
			First official language spoken	Language used most often at work	Language used regularly at work	Language used at least regularly at work	
number							
<b>East</b>	<b>39,300</b>	<b>2,195</b>	<b>25</b>	<b>10</b>	<b>90</b>	<b>100</b>	<b>430</b>
Newfoundland and Labrador	1,935	685	0	0	30	30	135
Prince Edward Island	5,135	130	0	0	0	0	15
Nova Scotia	32,230	1,380	25	10	65	75	280
<b>New Brunswick</b>	<b>235,130</b>	<b>825</b>	<b>320</b>	<b>280</b>	<b>100</b>	<b>380</b>	<b>440</b>
North	127,130	165	125	120	15	135	140
South-East	78,515	295	175	155	60	215	230
Rest of New Brunswick	29,485	370	20	10	20	30	70
<b>Quebec</b>	<b>994,720</b>	<b>10,540</b>	<b>1,610</b>	<b>1,535</b>	<b>3,860</b>	<b>5,395</b>	<b>9,025</b>
East	16,430	520	10	0	140	140	410
Estrie and South	51,210	855	50	25	470	495	765
Montréal	800,600	5,525	1,440	1,410	2,415	3,825	4,950
West	64,075	455	35	20	290	310	435
Québec and surrounding area	17,375	2,155	20	25	300	325	1,645
Rest of Quebec	45,030	1,040	55	60	240	300	820
<b>Ontario</b>	<b>537,585</b>	<b>15,225</b>	<b>540</b>	<b>160</b>	<b>905</b>	<b>1,065</b>	<b>3,495</b>
North-East	123,520	430	30	20	55	75	130
Ottawa	135,220	1,510	205	100	450	550	635
South-East	77,435	125	40	30	20	50	50
Toronto	46,710	5,015	90	10	145	155	1,065
Rest of Ontario	154,700	8,145	175	0	235	235	1,615
<b>West</b>	<b>182,490</b>	<b>12,180</b>	<b>190</b>	<b>70</b>	<b>230</b>	<b>300</b>	<b>2,025</b>
Manitoba	43,120	1,370	35	10	30	40	205
Saskatchewan	14,850	1,085	25	10	0	10	130
Alberta	62,785	4,265	60	35	70	105	635
British Columbia	61,735	5,460	70	15	130	145	1,055
<b>Territories</b>	<b>2,615</b>	<b>170</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>10</b>	<b>55</b>
Yukon	1,180	100	0	0	10	10	35
Northwest Territories	1,010	40	0	0	0	0	10
Nunavut	425	30	0	0	0	0	10
<b>Canada less Quebec</b>	<b>997,120</b>	<b>30,595</b>	<b>1,075</b>	<b>515</b>	<b>1,345</b>	<b>1,860</b>	<b>6,445</b>

See footnotes at the end of the table.

Text table 2.1 – continued

## Linguistics characteristics and language use of doctors, regions, provinces, territories and Canada less Quebec, 2006

	Minority official language									
	Official-language minority population by place of residence	Doctors by place of work								Knowledge of the minority official language
		First official language spoken	Language used most often at work		Language used regularly at work	Language used at least regularly at work		Knowledge of the minority official language		
	percentage	difference	percentage	difference	percentage	difference	percentage	difference	percentage	difference
<b>East</b>	<b>2.6</b>	<b>1.1</b>	<b>H1</b>	<b>0.5</b>		<b>4.1</b>	<b>4.6</b>	<b>H4,H5</b>	<b>19.6</b>	<b>H6,H7</b>
Newfoundland and Labrador	0.4	0.0		0.0		4.4	4.4	H4,H5	19.7	H6,H7
Prince Edward Island	3.8	0.0		0.0		0.0	0.0		11.5	
Nova Scotia	3.6	1.8		0.7		4.7	5.4	H4,H5	20.3	H6,H7
<b>New Brunswick</b>	<b>32.7</b>	<b>38.6</b>		<b>33.7</b>		<b>12.0</b>	<b>45.8</b>	<b>H5</b>	<b>53.0</b>	<b>H6</b>
North	77.4	75.8		72.7		9.1	81.8		84.8	
South-East	48.7	59.3		52.5		20.3	72.9	H5	78.0	
Rest of New Brunswick	7.5	5.4		2.7		5.4	8.1	H5	18.9	H6
<b>Quebec</b>	<b>13.4</b>	<b>15.3</b>		<b>14.5</b>		<b>36.6</b>	<b>51.1</b>	<b>H4,H5</b>	<b>85.5</b>	<b>H6,H7</b>
East	4.3	1.9		0.0		26.9	26.9	H5	78.8	H6,H7
Estrie and South	8.7	5.8		2.9	H3	55.0	57.9	H4,H5	89.5	H6,H7
Montréal	22.3	26.1		25.5		43.7	69.2	H4,H5	89.6	H6,H7
West	13.3	7.7		4.4	H3	63.7	68.1	H4,H5	95.6	H6
Québec and surrounding area	1.3	0.9		1.2		13.9	15.1	H4,H5	76.3	H6,H7
Rest of Quebec	4.1	5.3		5.8		23.1	28.8	H4,H5	78.8	H6,H7
<b>Ontario</b>	<b>4.5</b>	<b>3.5</b>	<b>H1</b>	<b>1.1</b>	<b>H2,H3</b>	<b>5.9</b>	<b>7.0</b>	<b>H4,H5</b>	<b>23.0</b>	<b>H6,H7</b>
North-East	25.1	7.0	H1	4.7	H3	12.8	17.4	H5	30.2	H6
Ottawa	16.9	13.6		6.6	H3	29.8	36.4	H4,H5	42.1	H6
South-East	41.3	32.0		24.0		16.0	40.0		40.0	
Toronto	1.9	1.8		0.2		2.9	3.1	H5	21.2	H6,H7
Rest of Ontario	1.9	2.1		0.0		2.9	2.9	H5	19.8	H6,H7
<b>West</b>	<b>1.9</b>	<b>1.6</b>		<b>0.6</b>	<b>H2,H3</b>	<b>1.9</b>	<b>2.5</b>	<b>H4,H5</b>	<b>16.6</b>	<b>H6,H7</b>
Manitoba	3.8	2.6		0.7		2.2	2.9	H5	15.0	H6,H7
Saskatchewan	1.6	2.3		0.9		0.0	0.9		12.0	H6,H7
Alberta	1.9	1.4		0.8	H3	1.6	2.5	H5	14.9	H6,H7
British Columbia	1.5	1.3		0.3	H2,H3	2.4	2.7	H4,H5	19.3	H6,H7
<b>Territories</b>	<b>2.6</b>	<b>0.0</b>		<b>0.0</b>		<b>6.1</b>	<b>6.1</b>		<b>33.3</b>	
Yukon	3.9	0.0		0.0		10.0	10.0		35.0	
Northwest Territories	2.5	0.0		0.0		0.0	0.0		25.0	
Nunavut	1.4	0.0		0.0		0.0	0.0		40.0	
<b>Canada less Quebec</b>	<b>4.2</b>	<b>3.5</b>	<b>H1</b>	<b>1.7</b>	<b>H2,H3</b>	<b>4.4</b>	<b>6.1</b>	<b>H4,H5</b>	<b>21.1</b>	<b>H6,H7</b>

H1 significant difference ( $p \leq 0.05$ ) between the proportion of doctors having the minority language as their first official-language and the minority-language population

H2 significant difference ( $p \leq 0.05$ ) between the proportion of doctors using the minority language most often at work and those who have the minority language as first official language

H3 significant difference ( $p \leq 0.05$ ) between the proportion of doctors using the minority language most often at work and the minority-language population

H4 significant difference ( $p \leq 0.05$ ) between the proportion of doctors using the minority language at least regularly at work and those who have the minority language as first official language

H5 significant difference ( $p \leq 0.05$ ) between the proportion of doctors using the minority language at least regularly at work and the minority-language population

H6 significant difference ( $p \leq 0.05$ ) between the proportion of doctors with knowledge of the minority language and those who use the minority language most often at work

H7 significant difference ( $p \leq 0.05$ ) between the proportion of doctors with knowledge of the minority language and those who use the minority language at least regularly at work

**Note(s):** All numbers were randomly rounded to multiples of 5. Numbers between 1 and 9 were randomly rounded to 0 or 10. Please refer to the methodological note in the appendix regarding explanations about calculating statistical tests. Please refer to the appendix for the descriptive list of regions and their census divisions.

**Source(s):** Statistics Canada, Census of Population, 20% sample, 2006.

## 2.2 Nurses

Outside Quebec, the 2006 Census found 213,795 nurses, of whom 9,705 had French as their first official language (4.5%). Moreover, 11,935 nurses said that they used this language at least regularly at work (2.3% most often and 3.3% regularly). Thus, some nurses who use French at work do not have this language

as their first official language. As for their ability to conduct a conversation in French, 23,130 nurses, or 10.8%, indicated that they know this language.

In 2006, outside Quebec the population with French as their first official language spoken represented 4.2% of the total population. The relative share of nurses belonging to the official-language minority group (4.5%)

is thus slightly higher than that of the French-speaking population.

In Quebec, of the 61,320 nurses enumerated in 2006, 5,275 had English as their first official language (8.6%). It should be noted that Anglophones make up 13.4% of Quebec's total population. By comparison, 22,555 nurses, or 36.8%, said that they use English at least regularly at work. A third of those nurses (14,760 people) use English most often at work. That number thus includes nurses whose first official language is not English. The number of nurses who stated that they can conduct a conversation in English reached 27,535, or 44.9%.

### 2.2.1 Eastern Canada

In Eastern Canada, 345 nurses, or 2.0%, have French as their first official language.<sup>7</sup> In addition, 1,270 nurses said that they know enough French to conduct a conversation in this language (7.5%). There is thus a relatively large proportion of nurses who can potentially speak French compared to the proportion of those who say that they use this language at work (2.6%). The French-speaking population represented 2.6% of Eastern Canada's population in 2006, a slight absolute and proportional decrease since 2001 (2.7%).

In Newfoundland and Labrador and Prince Edward Island, the number and proportion of nurses whose first official language is French is very small (less than 0.2% and 1.2% of all nurses respectively). However, 70 nurses, or 1.2%, state that they use French at least regularly at work in Newfoundland and Labrador, which is almost three times the share of the province's Francophone population (0.4%). As for the ability to speak French, 230 nurses, or 4.0%, in Newfoundland and Labrador and 130 nurses, or 8.0%, in Prince Edward Island said that they can conduct a conversation in this language.

In Nova Scotia, the proportions of nurses whose first official language is French (3.3%) and of those who use that language at least regularly at work (3.2%) are not significantly different from the share of the population whose first official language is French (3.6%). The proportion of nurses who know the minority language is 9.5%, or 915 nurses.

7. However, the sampling error does not allow us to say that these two proportions are statistically different.

8. Of that number, 830 nurses (0.8%) use French regularly at work, in addition to using English most often.

### 2.2.2 Western and Northern Canada

Of the 88,515 nurses in the western part of the country, 1,770 nurses, or 2.0%, have French as their first official language. A smaller number, 1,055 nurses, use the minority language at least regularly at work (1.2%).<sup>8</sup> This would indicate that a great majority of nurses who use French at work have this language as their first official language. As for their ability to conduct a conversation in French, 6,105 nurses, or 6.9%, state they know this language. The pool of nurses able to speak French thus greatly exceeds those whose first official language is French.

In the Western provinces, the proportion of the population with French as their first official language ranges from 1.5% in British Columbia to 3.8% in Manitoba. The relative share of nurses is between 1.3% in British Columbia and 4.1% in Manitoba. However, the percentage gap between the share of nurses whose first official language is French and the minority population is not considered significantly different from a statistical point of view.

In the four provinces, the number of nurses who use the minority language at least regularly at work is less than that of nurses with French as their first official language. In Saskatchewan, 70 nurses, or 0.7%, say that they use this language at work, while 150 nurses, or 1.6%, have French as their first official language. In Alberta, the share of nurses who use French at work represents half (1.0%) of those with this language as their first official language (2.1%). The same situation is observed in British Columbia where 460 nurses, or 1.3%, belong to the official-language minority group, while 230 nurses, or 0.7%, say that they use French at least regularly at work. In those four provinces, the gap between the proportion of French-speaking nurses and that of those professionals who use French at work is statistically significant.

The four Western provinces have a relatively large pool of nurses able to speak French. In Manitoba, 1,020 nurses, or 8.5%, say that they know the minority language. In Alberta, that proportion is 7.2% or 2,310 nurses. A similar number (2,340 nurses) can speak French in British Columbia (6.7%). In addition, we counted 435 nurses (4.6%) in Saskatchewan.

Finally, the number of French-speaking nurses is too small in the territories to allow reliable information to be presented. We will simply mention that of the 955 nurses practicing in the territories, those who have French as their first official language constituted

about 4% of this professional group in 2006. Moreover, 13% of nurses in the territories said that they can conduct a conversation in French.

### 2.2.3 New Brunswick

In New Brunswick, 2,765 nurses, or 34.3%, from the official-language minority group were enumerated in 2006. There are 3,570 nurses, or 44.3%, who use French at least regularly at work. Of those, three out of four use this language most often at work. Knowledge of French is still more common. Thus, 3,935 nurses, or 48.8%, state that they can conduct a conversation in French. The gap between the proportion of nurses who can speak French and those who use French at work is thus relatively smaller than that observed in the east and west of the country. It should be remembered that the share of the French-speaking population in New Brunswick is 32.7%.

In the North of the province, 91.6% of nurses use French at work, essentially predominantly. This proportion is much lower in the Rest of New Brunswick (13.3%),<sup>9</sup> but even there it is double the proportion of French-speaking nurses (6.1%).

The level of knowledge of the minority language is very high and exceeds that of its use at work. In the Rest of New Brunswick, it is 20.1%, which is a significantly higher proportion than that of nurses who use French at work (13.3%). In the South-East of the province, 61.5% of nurses say they know French, compared to 91.1% in the North of the province.

### 2.2.4 Quebec and its regions

Montréal is the region with the greatest share of English-speaking nurses in the province (16.0%). In this metropolitan area, 22.3% of the population has English as their first official language. By comparison, 55.5% of nurses use English at least regularly at work, a gap of almost 39 percentage points compared to the proportion of English-speaking nurses. Of the 30,000 nurses working in Montréal, 6,785 nurses, or 23.7%, state that they use English most often at work, while 9,130 nurses, or 31.8%, use it regularly in addition to French.

9. In this region, 450 of 525 nurses use French regularly at work, in addition to English which is the language used most often.

The share of English-speaking nurses is significantly lower from a statistical point of view than that of the English-speaking population in all regions of Quebec. However, in the Estrie and South of Quebec region as well as in the West of the province, the proportion of nurses who use English at least regularly at work is more than 34 percentage points higher than the proportion of the English-speaking population.

As for knowledge of English, 60% of nurses speak it in the Montréal region, 47% in the Estrie and South region and 52% in the West of Quebec. In all regions, the proportion of nurses who stated that they know English is higher than that of those who use this language at work. Sometimes however this gap is very small. In the West of Quebec, for example, 51.3% of nurses say that they use English at work while 51.9% indicate that they have knowledge of that language.

### 2.2.5 Ontario and its regions

Of the 99,275 nurses in Ontario, 4,785 of them, or 4.8%, have French as their first official language. The rate of use of the minority language at work is higher (6.9%), which means that at least 2,000 nurses who use French at work do not have this language as their first official language spoken. Almost 12% of these health care professionals are able to conduct a conversation in French. It should be noted that the French-speaking population represented 4.5% of Ontario's total population in 2006.

Most nurses in Southern Ontario (55.9%) say that they use French at least regularly at work. The rate of use of the minority language at work is 40.6% in Ottawa and 31.1% in Northeastern Ontario.<sup>10</sup> The share of nurses who use French at work in those three regions is higher than that of French-speaking nurses. This difference is greatest in Southeastern Ontario, over 20 percentage points.

In Toronto and the Rest of Ontario, the number and proportion of nurses who use the minority language at work is quite similar to the number and proportion of French-speaking nurses. However, that proportion (1.3% in Toronto and 1.4% in the Rest of the province) is lower than the relative share of the French-speaking population (1.9%). In those two regions, a larger proportion of nurses (7.0% in Toronto and 6.4% in the

10. In Northeastern Ontario and Ottawa, most nurses who use French at work indicate that they use it regularly in addition to using English. In Southeastern Ontario, the number of nurses who use French most often equals the number of those who use it regularly.

Rest of the province) report that they can conduct a conversation in French, which gives a pool of potential

French speakers of about 1,770 and 3,800 nurses respectively.

Text table 2.2

Linguistic characteristics and language use of nurses, regions, provinces, territories and Canada less Quebec, 2006

	Official-language minority population by place of residence	Total of nurses	Nurses by place of work					Knowledge of the minority official language
			Minority official language					
			First official language spoken	Language used most often at work	Language used regularly at work	Language used at least regularly at work	number	
<b>East</b>	<b>39,300</b>	<b>16,985</b>	<b>345</b>	<b>120</b>	<b>315</b>	<b>435</b>	<b>1,270</b>	
Newfoundland and Labrador	1,935	5,750	10	10	60	70	230	
Prince Edward Island	5,135	1,615	20	10	50	60	130	
Nova Scotia	32,230	9,625	315	100	210	310	915	
<b>New Brunswick</b>	<b>235,130</b>	<b>8,065</b>	<b>2,765</b>	<b>2,600</b>	<b>970</b>	<b>3,570</b>	<b>3,935</b>	
North	127,130	2,020	1,560	1,630	220	1,850	1,840	
South-East	78,515	2,115	965	890	310	1,200	1,300	
Rest of New Brunswick	29,485	3,935	240	75	450	525	790	
<b>Quebec</b>	<b>994,720</b>	<b>61,320</b>	<b>5,275</b>	<b>7,795</b>	<b>14,760</b>	<b>22,555</b>	<b>27,535</b>	
East	16,430	3,765	90	120	520	640	895	
Estrie and South	51,210	4,495	185	220	1,720	1,940	2,090	
Montréal	800,600	28,685	4,580	6,785	9,130	15,915	17,275	
West	64,075	3,255	170	250	1,420	1,670	1,690	
Québec and surrounding area	17,375	13,420	105	85	1,060	1,145	3,390	
Rest of Quebec	45,030	7,700	155	330	915	1,245	2,190	
<b>Ontario</b>	<b>537,585</b>	<b>99,275</b>	<b>4,785</b>	<b>1,895</b>	<b>4,960</b>	<b>6,855</b>	<b>11,695</b>	
North-East	123,520	5,275	1,100	395	1,245	1,640	1,745	
Ottawa	135,220	8,380	1,945	985	2,415	3,400	3,715	
South-East	77,435	1,145	360	330	310	640	660	
Toronto	46,710	25,360	345	80	245	325	1,770	
Rest of Ontario	154,700	59,110	1,030	105	735	840	3,800	
<b>West</b>	<b>182,490</b>	<b>88,515</b>	<b>1,770</b>	<b>225</b>	<b>830</b>	<b>1,055</b>	<b>6,105</b>	
Manitoba	43,120	12,025	490	140	290	430	1,020	
Saskatchewan	14,850	9,460	150	15	55	70	435	
Alberta	62,785	32,215	670	40	290	330	2,310	
British Columbia	61,735	34,815	460	25	205	230	2,340	
<b>Territories</b>	<b>2,615</b>	<b>955</b>	<b>40</b>	<b>15</b>	<b>15</b>	<b>30</b>	<b>125</b>	
Yukon	1,180	335	15	0	0	0	50	
Northwest Territories	1,010	430	10	0	10	10	35	
Nunavut	425	190	15	10	10	20	40	
<b>Canada less Quebec</b>	<b>997,120</b>	<b>213,795</b>	<b>9,705</b>	<b>4,850</b>	<b>7,090</b>	<b>11,935</b>	<b>23,130</b>	

See footnotes at the end of the table.

Text table 2.2 – continued

**Linguistic characteristics and language use of nurses, regions, provinces, territories and Canada less Quebec, 2006**

	Minority official language									
	Official-language minority population by place of residence	Nurses by place of work								Knowledge of the minority official language
		First official language spoken	Language used most often at work	Language used regularly at work	Language used at least regularly at work					
	percentage	difference	percentage	difference	percentage	difference	percentage	difference	percentage	difference
<b>East</b>	<b>2.6</b>	<b>2.0</b>		<b>0.7</b>	<b>H2,H3</b>	<b>1.9</b>	<b>2.6</b>	<b>H5</b>	<b>7.5</b>	<b>H6,H7</b>
Newfoundland and Labrador	0.4	0.2		0.2		1.0	1.2	H4,H5	4.0	H6,H7
Prince Edward Island	3.8	1.2	H1	0.6		3.1	3.7	H5	8.0	H6,H7
Nova Scotia	3.6	3.3		1.0	H2,H3	2.2	3.2	H5	9.5	H6,H7
<b>New Brunswick</b>	<b>32.7</b>	<b>34.3</b>		<b>32.2</b>		<b>12.0</b>	<b>44.3</b>	<b>H4,H5</b>	<b>48.8</b>	<b>H6</b>
North	77.4	77.2		80.7		10.9	91.6	H5	91.1	
South-East	48.7	45.6		42.1	H3	14.7	56.7	H5	61.5	H6
Rest of New Brunswick	7.5	6.1		1.9	H2,H3	11.4	13.3	H4,H5	20.1	H6,H7
<b>Quebec</b>	<b>13.4</b>	<b>8.6</b>	<b>H1</b>	<b>12.7</b>	<b>H2,H3</b>	<b>24.1</b>	<b>36.8</b>	<b>H4,H5</b>	<b>44.9</b>	<b>H6,H7</b>
East	4.3	2.4	H1	3.2		13.8	17.0	H4,H5	23.8	H6,H7
Estrie and South	8.7	4.1	H1	4.9	H3	38.3	43.2	H4,H5	46.5	H7
Montréal	22.3	16.0	H1	23.7	H2	31.8	55.5	H4,H5	60.2	H6,H7
West of Quebec	13.3	5.2	H1	7.7	H3	43.6	51.3	H4,H5	51.9	H6
Québec and surrounding area	1.3	0.8		0.6	H3	7.9	8.5	H4,H5	25.3	H6,H7
Rest of Quebec	4.1	2.0	H1	4.3	H2	11.9	16.2	H4,H5	28.4	H6,H7
<b>Ontario</b>	<b>4.5</b>	<b>4.8</b>	<b>H1</b>	<b>1.9</b>	<b>H2,H3</b>	<b>5.0</b>	<b>6.9</b>	<b>H4,H5</b>	<b>11.8</b>	<b>H6,H7</b>
North-East	25.1	20.9	H1	7.5	H2,H3	23.6	31.1	H4,H5	33.1	H6
Ottawa	16.9	23.2	H1	11.8	H2,H3	28.8	40.6	H4,H5	44.3	H6
South-East	41.3	31.4		28.8	H3	27.1	55.9	H4,H5	57.6	H6
Toronto	1.9	1.4	H1	0.3	H2,H3	1.0	1.3	H5	7.0	H6,H7
Rest of Ontario	1.9	1.7		0.2	H2,H3	1.2	1.4	H5	6.4	H6,H7
<b>West</b>	<b>1.9</b>	<b>2.0</b>		<b>0.3</b>	<b>H2,H3</b>	<b>0.9</b>	<b>1.2</b>	<b>H4,H5</b>	<b>6.9</b>	<b>H6,H7</b>
Manitoba	3.8	4.1		1.2	H2,H3	2.4	3.6	H5	8.5	H6,H7
Saskatchewan	1.6	1.6		0.2	H2,H3	0.6	0.7	H4,H5	4.6	H6,H7
Alberta	1.9	2.1		0.1	H2,H3	0.9	1.0	H4,H5	7.2	H6,H7
British Columbia	1.5	1.3		0.1	H2,H3	0.6	0.7	H4,H5	6.7	H6,H7
<b>Territories</b>	<b>2.6</b>	<b>4.2</b>		<b>1.6</b>		<b>1.6</b>	<b>3.1</b>	<b>H5</b>	<b>13.1</b>	<b>H6,H7</b>
Yukon	3.9	4.5		0.0		0.0	0.0		14.9	
Northwest Territories	2.5	2.3		0.0		2.3	2.3		8.1	
Nunavut	1.4	7.9		5.3		5.3	10.5		21.1	
<b>Canada less Quebec</b>	<b>4.2</b>	<b>4.5</b>	<b>H1</b>	<b>2.3</b>	<b>H2,H3</b>	<b>3.3</b>	<b>5.6</b>	<b>H4,H5</b>	<b>10.8</b>	<b>H6,H7</b>

H1 significant difference ( $p \leq 0.05$ ) between the proportion of nurses having the minority language as their first official-language and the minority-language population

H2 significant difference ( $p \leq 0.05$ ) between the proportion of nurses using the minority language most often at work and those who have the minority language as first official language

H3 significant difference ( $p \leq 0.05$ ) between the proportion of nurses using the minority language most often at work and the minority-language population

H4 significant difference ( $p \leq 0.05$ ) between the proportion of nurses using the minority language at least regularly at work and those who have the minority language as first official language

H5 significant difference ( $p \leq 0.05$ ) between the proportion of nurses using the minority language at least regularly at work and the minority-language population

H6 significant difference ( $p \leq 0.05$ ) between the proportion of nurses with knowledge of the minority language and those who use the minority language most often at work

H7 significant difference ( $p \leq 0.05$ ) between the proportion of nurses with knowledge of the minority language and those who use the minority language at least regularly at work

**Note(s):** All numbers were randomly rounded to multiples of 5. Numbers between 1 and 9 were randomly rounded to 0 or 10. Please refer to the methodological note in the appendix regarding explanations about calculating statistical tests. Please refer to the appendix for the descriptive list of regions and their census divisions.

**Source(s):** Statistics Canada, Census of Population, 20% sample, 2006.

### 2.3 Psychologists and social workers

Given the relatively small number of psychologists compared to the number of doctors and nurses, we have grouped them with social workers. Those two groups of professionals distinguish themselves from other groups specifically in that their practice is based essentially on verbal interactions with their

clientele. Because of the importance of language as an intervention tool, it is important to look into their language practices at work and their knowledge of the minority language.

Outside Quebec, 2,755 psychologists and social workers have French as their first official language. However, French is used at least regularly at work (6.9%) by a proportion higher than the percentage of

psychologists and social workers who have French as their first official language (5.6%). This means that a certain number of psychologists and social workers use French at work although it is not their first official language. Knowledge of French by psychologists and social workers outside Quebec is even greater with 16.0% of this professional group declaring that they can conduct a conversation in French. In those three situations, that of being a member of the official-language minority, that of using the minority language at work, and that of having knowledge of the language, the proportion of psychologists and social workers is higher than the proportion of the French-speaking population, which was 4.2% according to the 2006 Census.

### 2.3.1 Eastern Canada

For all of the provinces east of New Brunswick, almost 40,000 individuals have French as their first official language (2.6%). A similar proportion (2.7%) of psychologists and social workers state that they use French at least regularly at work while 12.4% of them said that they can conduct a conversation in this language.

However, it should be noted that the estimate of the use of French at work in Prince Edward Island by these health care professionals is based on too small a sample to be accurate. The same is true for the number of these professionals in Newfoundland and Labrador who have French as their first official language. Knowledge of the French language seems to be more widespread since 75 psychologists and social workers in Newfoundland and Labrador, or 6.7%, said they can conduct a conversation in French. It should be noted that Newfoundland's minority language population represented 0.4% of that province's total population in 2006. In Prince Edward Island, the proportion was 3.8%.

In Nova Scotia, the proportion of psychologists and social workers who claim to know French (15.0%) is almost four times higher than the proportion of professionals who say that they use the minority language at work (4.4%).

### 2.3.2 Western and Northern Canada

In Western Canada, there are 290 psychologists and social workers who use French at least regularly

at work (1.6%). Moreover, six times more of these professionals say that they can conduct a conversation in the minority language (9.0%).

It is in Manitoba that the use of French at least regularly at work is most common among psychologists and social workers (2.9%), followed by British Columbia (1.6%) and Alberta (1.2%). In the four Western provinces, the proportion of these professionals who have a knowledge of French is higher than its use at work. In British Columbia, 10.7% of all psychologists and social workers indicate that they can conduct a conversation in the minority language. This is almost the same proportion as the one observed in Manitoba (10.1%). In Alberta and Saskatchewan, this proportion is slightly smaller, at 7.7% in Alberta and 6.2% in Saskatchewan. In the four provinces combined, the potential pool of individuals who know French among this group of professionals is thus quite large compared to the number of those who use the language in their practice.

In the territories, as was the case with nurses and doctors, the number of psychologists and social workers who use French at work is too small to make accurate estimates. Of the 295 psychologists and social workers who work in the territories, only a very small number (less than 20 or 5%) have French as their first official language. Knowledge of the minority language was declared by 55 of these professionals (18.6%).

### 2.3.3 New Brunswick

More than half of all psychologists and social workers (56.5%) use French at least regularly at work in New Brunswick. This proportion is quite similar to the proportion of health care professionals who have French as their first official language (51.5%). Moreover, 975 psychologists and social workers said that they can conduct a conversation in the minority language (60.2%).

The use of French at work is more or less generalized in the North of New Brunswick. Thus, 410 of 425 psychologists and social workers (96.5%) use French at work in this region. This proportion is identical to the proportion of French-speaking psychologists and social workers. All psychologists and social workers say that they use French most often at work. In the Southeastern New Brunswick, 89.9% of these health care professionals use French at least regularly at work (of which 57%

use it most often), while in the Rest of the province this proportion is 19.4% (of which 4.4% use it most often).

In the North of New Brunswick, 77.4% of the total population has French as its first official language while this proportion is 48.7% in the Southeast and 7.5% in the Rest of New Brunswick.

### 2.3.4 Quebec and its regions

Of the 18,230 psychologists and social workers practicing in Quebec, 5,365 psychologists and social workers, or 29.4%, say that they use English at least regularly at work. This proportion is higher than the percentage of Anglophones or English speakers (13.4%). However, more than half of all psychologists and social workers (55.5%) say that they know enough English to conduct a conversation in this language. In all regions of Quebec, the proportion of psychologists and social workers who use English at least regularly at work is higher than the proportion of the English-speaking population. The difference can be as high as 24 percentage points (Western Quebec).

There are 4,105 psychologists and social workers in the Montréal Census Metropolitan Area who use English at work. Almost 45% of these professionals say that they use English most often. The proportion of psychologists and social workers who use English most often at work (18.9%) is not statistically different from the figures for English-speaking professionals (17.4%) or the one of the English-speaking population (22.3%). As for the rate of knowledge of English within this professional group, it was 68.0% in 2006.

In Western Quebec, 37.2% of psychologists and social workers say that they use English at least regularly at work. In this region, 59.2% of psychologists and social workers have a knowledge of English.

Finally, in the Estrie and South of Quebec region, the English-speaking population represented 8.7% of the total population in 2006. In this region, 23.0% of psychologists and social workers use the minority language at least regularly at work and 53.1% say that they can conduct a conversation in it.

### 2.3.5 Ontario and its regions

Of the 25,360 psychologists and social workers in Ontario, 2,085 of them or 8.2%, use French at least regularly at work. This proportion is higher than that of members of this professional group who have French as their first official language (6.0%). Knowledge of the French language was claimed by 18.6% of these professionals. There is a significant pool of professionals who can speak French compared to those who use the language at work and compared to the 4.5% of the French-speaking population in the province.

The largest proportion of psychologists and social workers who use French at work (72.6%) is observed in the Southeast of Ontario. Slightly more than half of these professionals say that they use French most often at work. A significant proportion of these professionals are not members of the official-language minority since only 51.2% of them have French as their first official language. The French-speaking population in this region represents 41.3% of the total population.

While the French-speaking minority constitutes 16.9% of Ottawa's population, 34.4% of psychologists and social workers use French at work (11.9% most often, 22.5% regularly). The proportion of psychologists and social workers who use French at work is higher than that of French-speaking professionals practicing in that city (22.5%). Almost half of all psychologists and social workers in Ottawa (49.1%) say that they can conduct a conversation in the minority language.

Even in Toronto, the proportion of psychologists and social workers who use French at least regularly at work (3.8%) considerably exceeds the proportion of the French-speaking population (1.9%). Moreover, the proportion of these professionals who say that they know French is almost 5 times higher (15.0%). In the Rest of the province, this proportion is 11.1%. Fewer than 2% of these professionals use French at work.

Text table 2.3

## Linguistic characteristics and language use of psychologists and social workers, regions, provinces, territories and Canada less Quebec, 2006

	Official-language minority population by place of residence	Psychologists and social workers by place of work					
		Total of psychologists and social workers	Minority official language				
			First official language spoken	Language used most often at work	Language used regularly at work	Language used at least regularly at work	Knowledge of the minority official language
							number
<b>East</b>	<b>39,300</b>	<b>2,980</b>	<b>85</b>	<b>15</b>	<b>65</b>	<b>80</b>	<b>370</b>
Newfoundland and Labrador	1,935	1,120	10	0	0	0	75
Prince Edward Island	5,135	165	10	0	10	10	45
Nova Scotia	32,230	1,695	80	15	60	75	255
<b>New Brunswick</b>	<b>235,130</b>	<b>1,620</b>	<b>835</b>	<b>670</b>	<b>245</b>	<b>915</b>	<b>975</b>
North	127,130	425	410	410	0	410	415
South-East	78,515	395	320	225	130	355	365
Rest of New Brunswick	29,485	800	100	35	120	155	205
<b>Quebec</b>	<b>994,720</b>	<b>18,230</b>	<b>1,950</b>	<b>2,065</b>	<b>3,300</b>	<b>5,365</b>	<b>10,125</b>
East	16,430	845	40	20	85	105	295
Estrie and South	51,210	1,195	45	55	220	275	635
Montréal	800,600	9,330	1,625	1,760	2,345	4,105	6,340
West	64,075	1,115	60	80	335	415	660
Québec and surrounding area	17,375	3,860	70	50	145	195	1,405
Rest of Quebec	45,030	1,880	115	100	170	270	780
<b>Ontario</b>	<b>537,585</b>	<b>25,360</b>	<b>1,510</b>	<b>710</b>	<b>1,375</b>	<b>2,085</b>	<b>4,720</b>
North-East	123,520	1,330	375	160	305	465	595
Ottawa	135,220	2,395	540	285	540	825	1,175
South-East	77,435	420	215	165	140	305	305
Toronto	46,710	7,235	175	65	210	275	1,085
Rest of Ontario	154,700	13,985	205	40	175	215	1,555
<b>West</b>	<b>182,490</b>	<b>18,630</b>	<b>310</b>	<b>65</b>	<b>225</b>	<b>290</b>	<b>1,685</b>
Manitoba	43,120	2,630	70	20	55	75	265
Saskatchewan	14,850	2,110	15	10	10	20	130
Alberta	62,785	6,600	115	20	60	80	510
British Columbia	61,735	7,290	110	20	100	120	780
<b>Territories</b>	<b>2,615</b>	<b>295</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>55</b>
Yukon	1,180	115	0	0	0	0	20
Northwest Territories	1,010	105	15	0	0	0	25
Nunavut	425	75	0	0	0	0	10
<b>Canada less Quebec</b>	<b>997,120</b>	<b>48,885</b>	<b>2,755</b>	<b>1,460</b>	<b>1,915</b>	<b>3,375</b>	<b>7,805</b>

See footnotes at the end of the table.

Text table 2.3 – continued

**Linguistic characteristics and language use of psychologists and social workers, regions, provinces, territories and Canada less Quebec, 2006**

	Minority official language										
	Official-language minority population by place of residence	Psychologists and social workers by place of work								Knowledge of the minority official language	
		First official language spoken	Language used most often at work	Language used regularly at work	Language used at least regularly at work						
	percentage	difference	percentage	difference	percentage	difference	percentage	difference			
<b>East</b>	<b>2.6</b>	<b>2.9</b>			<b>0.5</b>	<b>H2,H3</b>	<b>2.2</b>	<b>2.7</b>	<b>H5</b>	<b>12.4</b>	<b>H6,H7</b>
Newfoundland and Labrador	0.4	0.9			0.0		0.0	0.0	H5	6.7	H7
Prince Edward Island	3.8	6.1			0.0		6.1	6.1		27.3	
Nova Scotia	3.6	4.7			0.9	H2,H3	3.5	4.4	H5	15.0	H6,H7
<b>New Brunswick</b>	<b>32.7</b>	<b>51.5</b>	<b>H1</b>		<b>41.4</b>	<b>H2,H3</b>	<b>15.1</b>	<b>56.5</b>	<b>H4,H5</b>	<b>60.2</b>	<b>H6</b>
North	77.4	96.5			96.5		0.0	96.5	H5	97.6	
South-East	48.7	81.0			57.0		32.9	89.9		92.4	
Rest of New Brunswick	7.5	12.5			4.4		15.0	19.4	H4,H5	25.6	H6
<b>Quebec</b>	<b>13.4</b>	<b>10.7</b>	<b>H1</b>		<b>11.3</b>	<b>H3</b>	<b>18.1</b>	<b>29.4</b>	<b>H4,H5</b>	<b>55.5</b>	<b>H6,H7</b>
East	4.3	4.7			2.4		10.1	12.4	H5	34.9	H6,H7
Estrie and South	8.7	3.8	H1		4.6	H3	18.4	23.0	H4,H5	53.1	H6,H7
Montréal	22.3	17.4	H1		18.9		25.1	44.0	H4,H5	68.0	H6,H7
West	13.3	5.4	H1		7.2	H3	30.0	37.2	H4,H5	59.2	H6,H7
Québec and surrounding area	1.3	1.8			1.3		3.8	5.1	H4,H5	36.4	H6,H7
Rest of Quebec	4.1	6.1			5.3		9.0	14.4	H4,H5	41.5	H6,H7
<b>Ontario</b>	<b>4.5</b>	<b>6.0</b>	<b>H1</b>		<b>2.8</b>	<b>H2,H3</b>	<b>5.4</b>	<b>8.2</b>	<b>H4,H5</b>	<b>18.6</b>	<b>H6,H7</b>
North-East	25.1	28.2			12.0	H2,H3	22.9	35.0	H5	44.7	H6
Ottawa	16.9	22.5			11.9	H2,H3	22.5	34.4	H4,H5	49.1	H6,H7
South-East	41.3	51.2			39.3		33.3	72.6	H5	72.6	H6
Toronto	1.9	2.4			0.9	H2,H3	2.9	3.8	H5	15.0	H6,H7
Rest of Ontario	1.9	1.5			0.3	H2,H3	1.3	1.5	H5	11.1	H6,H7
<b>West</b>	<b>1.9</b>	<b>1.7</b>			<b>0.3</b>	<b>H2,H3</b>	<b>1.2</b>	<b>1.6</b>	<b>H5</b>	<b>9.0</b>	<b>H6,H7</b>
Manitoba	3.8	2.7			0.8	H2,H3	2.1	2.9	H5	10.1	H6,H7
Saskatchewan	1.6	0.7			0.5		0.5	0.9	H5	6.2	H7
Alberta	1.9	1.7			0.3	H2,H3	0.9	1.2	H5	7.7	H6,H7
British Columbia	1.5	1.5			0.3	H2,H3	1.4	1.6	H5	10.7	H6,H7
<b>Territories</b>	<b>2.6</b>	<b>5.1</b>			<b>0.0</b>		<b>0.0</b>	<b>0.0</b>	<b>H5</b>	<b>18.6</b>	
Yukon	3.9	0.0			0.0		0.0	0.0		17.4	
Northwest Territories	2.5	14.3			0.0		0.0	0.0		23.8	
Nunavut	1.4	0.0			0.0		0.0	0.0		13.3	
<b>Canada less Quebec</b>	<b>4.2</b>	<b>5.6</b>	<b>H1</b>		<b>3.0</b>	<b>H2,H3</b>	<b>3.9</b>	<b>6.9</b>	<b>H4,H5</b>	<b>16.0</b>	<b>H6,H7</b>

H1 significant difference ( $p \leq 0.05$ ) between the proportion of psychologists and social workers having the minority language as their first official-language and the minority-language population

H2 significant difference ( $p \leq 0.05$ ) between the proportion of psychologists and social workers using the minority language most often at work and those who have the minority language as first official language

H3 significant difference ( $p \leq 0.05$ ) between the proportion of psychologists and social workers using most often the minority language at work and the minority-language population

H4 significant difference ( $p \leq 0.05$ ) between the proportion of psychologists and social workers using the minority language at least regularly at work and those who have the minority language as first official language

H5 significant difference ( $p \leq 0.05$ ) between the proportion of psychologists and social workers using the minority language at least regularly at work and the minority-language population

H6 significant difference ( $p \leq 0.05$ ) between the proportion of psychologists and social workers with knowledge of the minority language and those who use the minority language most often at work

H7 significant difference ( $p \leq 0.05$ ) between the proportion of psychologists and social workers with knowledge of the minority language and those who use the minority language at least regularly at work

**Note(s):** All numbers were randomly rounded to multiples of 5. Numbers between 1 and 9 were randomly rounded to 0 or 10. Please refer to the methodological note in the appendix regarding explanations about calculating statistical tests. Please refer to the appendix for the descriptive list of regions and their census divisions.

**Source(s):** Statistics Canada, Census of Population, 20% sample, 2006.

## 2.4 Other health care professionals

Grouping other health care professionals into a single category has the advantage of giving an overview

of the language characteristics and use by these professionals. However, it has the disadvantage of grouping several professions together without it being

possible to distinguish among them.<sup>11</sup> Nevertheless, this approach allows us to see to what extent this grouping of “other” professionals is different from the professional groups already presented in this report.

Outside Quebec, the 2006 Census enumerated 473,210 other health care professionals, of whom 22,055 (4.7%) had French as their first official language. By comparison, 25,090 professionals stated that they use this language at least regularly at work (5.3%). As for the ability to conduct a conversation in French, 57,220 health care professionals, or 12.1%, stated they know this language.

In 2006, the population with French as its first official language spoken outside Quebec represented 4.2% of the total population. The relative share of other health care professionals belonging to the official-language minority group (6.6%) is thus higher than that of the French-speaking population.

In Quebec, of 167,940 other health care professionals enumerated in 2006, 16,635, or 9.9%, had English as their first official language. As mentioned earlier, the Anglophone share of the total population of Quebec is 13.4%. By comparison, 59,530 “other” health care professionals, or 35.4%, stated that they use English at least regularly at work (of whom 11.7% use it most often). As for the number of other health care professionals who said that they can conduct a conversation in English, this was 83,135 individuals (49.5%).

### 2.4.1 Eastern Canada

For all provinces combined, there is no statistical difference between the proportion of the population with French as its first official language in the Eastern part of the country and that of other health care professionals who are also members of the French-speaking minority (2.8%). The same is true with regard to the use of this language at least regularly at work (2.9%). In this part of Canada, the proportion of other health care professionals who can conduct a conversation in French is 9.6%.

11. For example, veterinarians and animal health technologists are included in the group of health care professionals.

### 2.4.2 Western and Northern Canada

Western Canada has 3,940 other health professionals with French as their first official language. This is 2.0% of the 197,850 other health care professionals in these four provinces. By comparison, 1.4% of these professionals say that they use French at work and 7.9% or 15,725 indicate that they can conduct a conversation in French.

In the three territories combined, while the Francophones represented 2.6% of the total population in 2006, the share of other health care professionals was not statistically significant. The same is true for the use of French at work by these professionals. Finally, we note that 13.8% of these professionals said that they could conduct a conversation in French.

### 2.4.3 New Brunswick and its regions

Of the 15,940 other health care professionals in New Brunswick, 6,000 or 37.4% of them have the minority language as their first official language spoken. By comparison, 44.5% of these professionals say that they use French at work (34.3% most often, 10.2% regularly) and more than 50% of them say that they can conduct a conversation in French.

As for the province’s regions, the gap between the share of French-speaking population and that of other health care professionals of this language group is not statistically significant. However, in the three regions of New Brunswick discussed in this report, the proportion of health care professionals who use French at least regularly at work is higher than the share represented by the French-speaking population in the province.

Almost all of these health care professionals in Northern New Brunswick (82%) use French most often at work, while 10.2% use it regularly. In Southeastern New Brunswick, 62.2% of other health care professionals use French at least regularly, of whom two thirds use it most often. In these two regions, the proportion of professionals who indicate that they know French barely exceeds the proportion of those who use this language at work. Finally, in the Rest of the province, 2.8% of other health care professionals state that they use French most often at work and 7.1% use it regularly. By comparison, 20.6% of these professionals know the minority language.

#### 2.4.4 Quebec and its regions

In all of Quebec's regions discussed in this report, the proportion of other health care professionals in the minority category is lower than the share of the English-speaking population. The proportion of other health care professionals using English regularly in the workplace is always higher than their share of the minority-speaking population or the percentage of the English-speaking population in these regions. In Montréal, for example, 52% of these health care professionals state that they use English at least regularly at work whereas 22.3% of the population has English as its first official language. In Western Quebec, the corresponding proportions are 46.7% and 13.3%. As with doctors, nurses, psychologists and social workers, the proportion of other professionals who state that they can conduct a conversation in English is much higher. In Montréal, 63% of these professionals say that they know English.

#### 2.4.5 Ontario and its regions

In Ontario, the share represented by other French-speaking health care professionals was 5.0% in 2006. By comparison, 6.3% of them use French at work, which is higher than the proportion of the French-speaking population in the province (4.5%). Moreover, 13.3% (about 30,000) of these professionals say that they could conduct a conversation in French. Certain regions of Ontario are worthy of attention in light of what has already been observed among doctors. Thus, 31.0% of other health care professionals use French at least regularly at work in the North-East of the province, 34.4% in Ottawa and 59.3% in the South-East. Likewise, the level of knowledge of French by these professionals in the three regions were 36.5%, 43.6% and 63.8% respectively. Finally, in Toronto, the proportion of these other health care professionals with knowledge of French is considerably higher (7.9%) than the share of these workers who use the minority language at work (1.3%).

Text table 2.4

## Linguistic characteristics and language use of other health care professionals, regions, provinces, territories and Canada less Quebec, 2006

	Official-language minority population by place of residence	Other health care professionals by place of work					
		Total of other health care professionals	Minority official language				Knowledge of the minority official language
			First official language spoken	Language used most often at work	Language used regularly at work	Language used at least regularly at work	
number							
<b>East</b>	<b>39,300</b>	<b>32,600</b>	<b>905</b>	<b>295</b>	<b>635</b>	<b>930</b>	<b>3,140</b>
Newfoundland and Labrador	1,935	9,225	30	10	70	80	360
Prince Edward Island	5,135	2,890	95	40	65	105	350
Nova Scotia	32,230	20,485	780	245	505	750	2,420
<b>New Brunswick</b>	<b>235,130</b>	<b>15,940</b>	<b>5,945</b>	<b>5,465</b>	<b>1,625</b>	<b>7,090</b>	<b>8,095</b>
North	127,130	4,230	3,395	3,470	370	3,840	3,845
South-East	78,515	3,995	2,070	1,780	705	2,485	2,665
Rest of New Brunswick	29,485	7,710	490	215	550	765	1,585
<b>Quebec</b>	<b>994,720</b>	<b>167,940</b>	<b>16,635</b>	<b>19,630</b>	<b>39,900</b>	<b>59,530</b>	<b>83,135</b>
East	16,430	8,595	220	140	1,280	1,420	2,260
Estrie and South	51,210	12,880	755	815	4,120	4,935	6,400
Montréal	800,600	83,260	14,240	17,260	26,025	43,285	52,350
West	64,075	8,385	540	645	3,270	3,915	4,745
Québec and surrounding area	17,375	32,355	235	275	2,420	2,695	9,950
Rest of Quebec	45,030	22,460	640	495	2,785	3,280	7,425
<b>Ontario</b>	<b>537,585</b>	<b>225,410</b>	<b>11,215</b>	<b>4,550</b>	<b>9,660</b>	<b>14,210</b>	<b>30,065</b>
North-East	123,520	10,400	2,410	1,015	2,210	3,225	3,795
Ottawa	135,220	18,035	4,050	2,045	4,160	6,205	7,865
South-East	77,435	3,160	1,320	1,110	765	1,875	2,015
Toronto	46,710	53,375	775	100	655	755	5,065
Rest of Ontario	154,700	140,430	2,665	280	1,880	2,160	11,335
<b>West</b>	<b>182,490</b>	<b>197,850</b>	<b>3,940</b>	<b>695</b>	<b>2,100</b>	<b>2,795</b>	<b>15,725</b>
Manitoba	43,120	27,440	1,130	460	665	1,125	2,740
Saskatchewan	14,850	22,455	255	55	130	185	1,165
Alberta	62,785	68,250	1,290	120	745	865	5,390
British Columbia	61,735	79,705	1,265	60	560	620	6,430
<b>Territories</b>	<b>2,615</b>	<b>1,410</b>	<b>50</b>	<b>10</b>	<b>55</b>	<b>65</b>	<b>195</b>
Yukon	1,180	520	30	10	20	30	75
Northwest Territories	1,010	655	10	0	20	20	70
Nunavut	425	235	10	0	15	15	50
<b>Canada less Quebec</b>	<b>997,120</b>	<b>473,210</b>	<b>22,055</b>	<b>11,010</b>	<b>14,080</b>	<b>25,090</b>	<b>57,220</b>

See footnotes at the end of the table.

Text table 2.4 – continued

**Linguistic characteristics and language use of other health care professionals, regions, provinces, territories and Canada less Quebec, 2006**

	Minority official language										
	Official-language minority population by place of residence	Other health care professionals by place of work								Knowledge of the minority official language	
		First official language spoken	Language used most often at work	Language used regularly at work	Language used at least regularly at work						
	percentage	difference	percentage	difference	percentage	difference	percentage	difference	percentage	difference	
<b>East</b>	<b>2.6</b>	<b>2.8</b>			<b>0.9</b>	<b>H2,H3</b>	<b>1.9</b>	<b>2.9</b>	<b>H5</b>	<b>9.6</b>	<b>H6,H7</b>
Newfoundland and Labrador	0.4	0.3			0.1		0.8	0.9	H5	3.9	H7
Prince Edward Island	3.8	3.3			1.4	H3	2.2	3.6	H5	12.1	H6,H7
Nova Scotia	3.6	3.8			1.2	H2,H3	2.5	3.7	H5	11.8	H6,H7
<b>New Brunswick</b>	<b>32.7</b>	<b>37.3</b>	<b>H1</b>		<b>34.3</b>	<b>H2</b>	<b>10.2</b>	<b>44.5</b>	<b>H4,H5</b>	<b>50.8</b>	<b>H6,H7</b>
North	77.4	80.3			82.0		8.7	90.8	H4,H5	90.9	
South-East	48.7	51.8			44.6		17.6	62.2	H4,H5	66.7	H7
Rest of New Brunswick	7.5	6.4			2.8	H2,H3	7.1	9.9	H4,H5	20.6	H6,H7
<b>Quebec</b>	<b>13.4</b>	<b>9.9</b>	<b>H1</b>		<b>11.7</b>	<b>H2,H3</b>	<b>23.8</b>	<b>35.4</b>	<b>H4,H5</b>	<b>49.5</b>	<b>H6,H7</b>
East	4.3	2.6	H1		1.6	H3	14.9	16.5	H4,H5	26.3	H6,H7
Estrie and South	8.7	5.9	H1		6.3	H3	32.0	38.3	H4,H5	49.7	H6,H7
Montréal	22.3	17.1	H1		20.7	H2,H3	31.3	52.0	H4,H5	62.9	H6,H7
West	13.3	6.4	H1		7.7	H3	39.0	46.7	H4,H5	56.6	H6,H7
Québec and surrounding area	1.3	0.7	H1		0.8		7.5	8.3	H4,H5	30.8	H6,H7
Rest of Quebec	4.1	2.8	H1		2.2	H3	12.4	14.6	H4,H5	33.1	H6,H7
<b>Ontario</b>	<b>4.5</b>	<b>5.0</b>	<b>H1</b>		<b>2.0</b>	<b>H2,H3</b>	<b>4.3</b>	<b>6.3</b>	<b>H4,H5</b>	<b>13.3</b>	<b>H6,H7</b>
North-East	25.1	23.2			9.8	H2,H3	21.3	31.0	H4,H5	36.5	H6,H7
Ottawa	16.9	22.5	H1		11.3	H2,H3	23.1	34.4	H4,H5	43.6	H6,H7
South-East	41.3	41.8			35.1	H3	24.2	59.3	H4,H5	63.8	H6
Toronto	1.9	1.5	H1		0.2	H2,H3	1.2	1.4	H5	9.5	H6,H7
Rest of Ontario	1.9	1.9			0.2	H2,H3	1.3	1.5	H4,H5	8.1	H6,H7
<b>West</b>	<b>1.9</b>	<b>2.0</b>			<b>0.4</b>	<b>H2,H3</b>	<b>1.1</b>	<b>1.4</b>	<b>H4,H5</b>	<b>7.9</b>	<b>H6,H7</b>
Manitoba	3.8	4.1			1.7	H2,H3	2.4	4.1	H5	10.0	H6,H7
Saskatchewan	1.6	1.1	H1		0.2	H2,H3	0.6	0.8	H5	5.2	H6,H7
Alberta	1.9	1.9			0.2	H2,H3	1.1	1.3	H4,H5	7.9	H6,H7
British Columbia	1.5	1.6			0.1	H2,H3	0.7	0.8	H4,H5	8.1	H6,H7
<b>Territories</b>	<b>2.6</b>	<b>3.5</b>			<b>0.7</b>		<b>3.9</b>	<b>4.6</b>	<b>H5</b>	<b>13.8</b>	<b>H6,H7</b>
Yukon	3.9	5.8			1.9		3.8	5.8		14.4	
Northwest Territories	2.5	1.5			0.0		3.1	3.1		10.7	
Nunavut	1.4	4.3			0.0		6.4	6.4		21.3	
<b>Canada less Quebec</b>	<b>4.2</b>	<b>4.7</b>	<b>H1</b>		<b>2.3</b>	<b>H2,H3</b>	<b>3.0</b>	<b>5.3</b>	<b>H4,H5</b>	<b>12.1</b>	<b>H6,H7</b>

H1 significant difference ( $p \leq 0.05$ ) between the proportion of other health care professionals having the minority language as their first official-language and the minority-language population

H2 significant difference ( $p \leq 0.05$ ) between the proportion of other health care professionals using the minority language most often at work and those who have the minority language as first official language

H3 significant difference ( $p \leq 0.05$ ) between the proportion of other health care professionals using the minority language most often at work and the minority-language population

H4 significant difference ( $p \leq 0.05$ ) between the proportion of other health care professionals using the minority language at least regularly at work and those who have the minority language as first official language

H5 significant difference ( $p \leq 0.05$ ) between the proportion of other health care professionals using the minority language at least regularly at work and the minority-language population

H6 significant difference ( $p \leq 0.05$ ) between the proportion of other health care professionals with knowledge of the minority language and those who use the minority language most often at work

H7 significant difference ( $p \leq 0.05$ ) between the proportion of other health care professionals with knowledge of the minority language and those who use the minority language at least regularly at work

**Note(s):** All numbers were randomly rounded to multiples of 5. Numbers between 1 and 9 were randomly rounded to 0 or 10. Please refer to the methodological note in the appendix regarding explanations about calculating statistical tests. Please refer to the appendix for the descriptive list of regions and their census divisions.

**Source(s):** Statistics Canada, Census of Population, 20% sample, 2006.

## Section 3

### *An examination of the change of the number of health care professionals who know the minority language and of those who use it at work*

#### **3.1 Growth in the number of health care professionals who know the official minority language in Canada, 2001 to 2006**

In all the provinces and territories, the proportion of health care professionals who know the minority language increased from 2001 to 2006, as did the total number of health care professionals. In this section, the growth rate in the number of health care professionals who know the minority language will be looked at, by taking the general increase in the number of health care professionals into account, in order to determine how significant the increase or decrease was. Table 1 in the appendix shows the change in number for all health care professionals between 2001 and 2006.

##### **3.1.1 The East, the West and the territories**

Nunavut experienced the largest growth in the number of health care professionals having a knowledge of French in the territories and provinces with a 120% growth in the number, almost 5 times the growth rate of all health care professionals.<sup>1</sup> This growth is due in part to the fact that populations are small and their intercensal geographic mobility may be quite significant. In Nova Scotia, the growth in the number of health care professionals with knowledge of French (24.4%) surpassed the growth in the total number of health care professionals (14.1%) observed between 2001 and 2006.

Alberta saw the greatest growth in the number of health care professionals with knowledge of French (22.8%)

1. Because of random rounding and the small numbers involved, this growth rate must however be considered as an approximation.

in the Western provinces. This number grew in all the provinces, but generally less than the total number of health care professionals. Manitoba was the exception inasmuch as the number of health care professionals with knowledge of French increased by 10.9% while the growth rate for these professionals was 9.1%.

##### **3.1.2 New Brunswick and Ontario**

In New Brunswick, we note an upward trend in the number of health care professionals who know French in all regions (a growth rate of 22.3% for the province as a whole). This growth rate was slightly higher than that of all health care professionals in the province (19.1%).

In the South-East and the Rest of New Brunswick, the growth in the number of people who can speak French was relatively greater than in the Northern New Brunswick where the proportion is already at 91%. This growth rate was also higher than that of all health care professionals.

In Ontario, the number of health care professionals with a knowledge of French grew by 14.4% between 2001 and 2006, slightly less than the total number of health care professionals (17.6%). In the East of the province, the growth rate for professionals who know French (17.2% in the North-East and 20.0% in the South-East) is higher than the growth rate for all health care professionals (14.6% in the North-East and 10.4% in the South-East). In Ottawa, Toronto and the Rest of the province, the increases in the number of health care professionals with knowledge of French were 12.1%, 7.0% and 18.1% respectively. These are slightly lower than those for all health care professionals in these regions, which were 16.2%, 12.1% and 20.6% respectively.

The strong growth of the immigrant population in the country's large urban centers between 2001 and 2006 as well as the low level of knowledge of French among those immigrants can explain in part the fact that the growth in the number of health care professionals is larger than that of professionals who can speak French.

### 3.1.3 Quebec

In Quebec, the number of health care professionals who know English increased by 9.7% between 2001 and 2006. This growth rate is less than that of health care professionals (15.1%) during the same period. In the Estrie and South of Quebec regions, in Montréal and in Québec and surrounding areas, the number of health care professionals who

know English grew by about 10% while the increase in the total number of health care professionals was between 15% and 19%.<sup>2</sup>

2. One must be cautious when comparing 2001 and 2006 data for Quebec due to the difficulty of explaining the decrease of bilingualism in the country's overall Francophone population during that period. Please refer to the cautionary note in Statistics Canada's analytical report released on December 4<sup>th</sup>, 2007.

Text table 3.1

#### Health care professionals by knowledge of the minority official language, regions, provinces, territories and Canada less Quebec, 2001 and 2006

	Knowledge of the minority official language by place of work				Change in number
	2001		2006		
	number	percentage	number	percentage	
<b>East</b>	<b>4,115</b>	<b>8.5</b>	<b>5,210</b>	<b>9.5</b>	<b>26.6 *</b>
Newfoundland and Labrador	620	4.1	800	4.8	29.0
Prince Edward Island	395	9.6	540	11.3	36.7
Nova Scotia	3,110	10.7	3,870	11.7	24.4 *
<b>New Brunswick</b>	<b>10,995</b>	<b>49.5</b>	<b>13,445</b>	<b>50.8</b>	<b>22.3 *</b>
North	5,435	91.5	6,240	91.2	14.8 *
South-East	3,490	64.0	4,560	67.1	30.7 *
Rest of New Brunswick	2,060	19.0	2,650	20.7	28.6 *
<b>Quebec</b>	<b>118,310</b>	<b>52.8</b>	<b>129,820</b>	<b>50.3</b>	<b>9.7 *</b>
East	3,755	29.5	3,860	28.1	2.8
Estrie and South	8,960	54.8	9,890	50.9	10.4 *
Montréal	73,820	67.2	80,915	63.8	9.6 *
West	6,285	58.5	7,530	57.0	19.8 *
Québec and surrounding area	14,945	33.8	16,390	31.6	9.7 *
Rest of Quebec	10,555	35.0	11,215	33.9	6.3
<b>Ontario</b>	<b>43,700</b>	<b>14.1</b>	<b>49,975</b>	<b>13.7</b>	<b>14.4 *</b>
North-East	5,345	35.1	6,265	35.9	17.2 *
Ottawa	11,940	45.8	13,390	44.2	12.1 *
South-East	2,525	57.5	3,030	62.5	20.0 *
Toronto	8,395	10.3	8,985	9.9	7.0
Rest of Ontario	15,495	8.4	18,305	8.3	18.1 *
<b>West</b>	<b>22,255</b>	<b>8.1</b>	<b>25,540</b>	<b>8.1</b>	<b>14.8 *</b>
Manitoba	3,815	9.6	4,230	9.7	10.9 *
Saskatchewan	1,755	5.4	1,860	5.3	6.0
Alberta	7,200	8.1	8,845	7.9	22.8 *
British Columbia	9,485	8.4	10,605	8.3	11.8 *
<b>Territories</b>	<b>265</b>	<b>11.5</b>	<b>430</b>	<b>15.2</b>	<b>62.3 *</b>
Yukon	90	10.3	180	16.8	100.0
Northwest Territories	125	12.4	140	11.4	12.0
Nunavut	50	11.8	110	20.8	120.0 *
<b>Canada less Quebec</b>	<b>67,545</b>	<b>10.3</b>	<b>94,600</b>	<b>12.3</b>	<b>40.1 *</b>

\* the change in number is statistically significant ( $p < 0.05$ ) between 2001 and 2006

**Note(s):** Please refer to the appendix for the descriptive list of regions and their census divisions. Please refer to the methodological note in the appendix regarding explanations about calculating statistical tests.

**Source(s):** Statistics Canada, Census of Population, 20% sample, 2001 and 2006.

### 3.2 Increase in the use of the minority language at least regularly at work among health care professionals in Canada, 2001 to 2006

Following the description of changes in knowledge of the minority language by health care professionals, it is important to examine whether the changes observed translate into increased or decreased use of the minority language at work.

An examination of the situation is often complex. At the provincial level, minority language use may have increased between 2001 and 2006, but less than the number of speakers of that language. Some regions may have lost professionals using the minority language at work but that loss may have been compensated for in other regions. Moreover, predominant use of the minority official language may have decreased while its regular use, in addition to the use of the majority language, may have increased.

In this section, we will examine the growth in the number of health care professionals who use the minority language at work in the context of changes and growth of the number of health care professionals between 2001 and 2006.

#### 3.2.1 Eastern and Western and Territories

The number of health care professionals who use French at least regularly at work grew between 2001 and 2006 in Newfoundland and Labrador and in Prince Edward Island, but the numbers were too small to conclude that this growth was statistically significant (see Table 3.3).

In Nova Scotia, the number of health care professionals who use French at least regularly at work increased by 30.8%<sup>3</sup> while the number of professionals who know the minority language went up by 24.4%. These growth rates are about double those for the total of health care professionals.

In Manitoba, the growth in the number of health care professionals who use French at least regularly at work (19.3%) is almost twice as strong as that of the number of all health care professionals (9.1%). The use of

3. The growth rate for French used predominantly at work was almost the same (25.4%).

French most often at work in this province increased by 21.2%.

Alberta saw a 38.7% increase in the number of health care professionals who use French at work. The growth rate for the total of health care professionals between 2001 and 2006 was 25.4%.<sup>4</sup>

The number of health care professionals saying that they use French regularly at work in British Columbia went up by 12.1%. However, its predominant use dropped by 4.0% during the same period. This change is similar to the increase in the number of all health care professionals (13.0%).

In Saskatchewan, the use of French at least regularly at work dropped by 17.4% between 2001 and 2006, while the number of those who use this language most often at work almost doubled.<sup>5</sup> During the same period, the number of all health care professionals increased by 7.6%.

Finally, in the three territories, the number of health care professionals using French at work is too small to be analyzed.

#### 3.2.2 New Brunswick and Ontario

In New Brunswick, Canada's only officially bilingual province, the growth rate for the number of health care professionals with knowledge of French and the number of health care professionals who say that they use this language at work increased by about 22%.<sup>6</sup> These rates match the change in the number of health care professionals who can speak French. The number of health care professionals working in New Brunswick grew by 19.1% between 2001 and 2006.

In Northern New Brunswick, the change in the number of health care professionals with knowledge of French and for those who use this language at least regularly or most often at work was about 15%.

By comparison, the growth rate for health care professionals with knowledge of French in the South-East was 30.7%. This increase in the use of French most often at work was of the same order (27.1%). However, the number of health care professionals who indicated that they used the minority

4. Part of this increase is due to Francophone professionals moving from Quebec to Alberta during this period.

5. These are small numbers.

6. The use of French most often at work increased slightly less rapidly (18.5%).

language at work at least regularly decreased by 17.1%. Considerable growth was noted in the number of health care professionals in this region (24.7%) between 2001 and 2006.

The same observation applies to Ontario. The growth in the number of health care professionals who use French at least regularly in the course of their professional activities was 17.9% province-wide while the growth for health care professionals who know this language was about the same (14.4%).

All regions in Ontario saw some growth in the number of health care professionals able to conduct a conversation in French and of professionals using this language at work. In general, its use grew slightly faster than the number of speakers. The greatest increase in the number of health care professionals using French at least regularly at work was observed in Southeastern Ontario (22.6%).<sup>7</sup> In this region, the change in number of health care professionals stating that they can conduct a conversation in the minority language was 20%. That is to say that the number of those using French at work has grown twice as much as the population of health care professionals (10.4 %).

In Toronto, the growth in the use of the minority language at least regularly at work grew much less rapidly (6.7%) than in the other regions. Its use most often at work even dropped by 15.0% between 2001 and 2006. However, this downward trend was accompanied by a 7.0% increase in the knowledge of the minority language, which is slightly greater than the rate for the total number of health care professionals (12.1%).

In Ottawa and in Northeastern Ontario, the growth in the use of French at work paralleled the growth in the number of professionals who can speak French (12.1% and 17.2% respectively). In the case of Ottawa, the growth rate is lower than that of the overall health care professionals between 2001 and 2006 (16.2%).

7. The growth rate of the number of health care professionals indicating that they use French most often at work was 16.8%.

8. The increase in the predominant use of English was much less (4.4%).

### 3.2.3 Quebec

In Quebec, the use of English at least regularly at work grew by 19.9% between 2001 and 2006.<sup>8</sup> This is about double the increase of the knowledge of English (9.7%). The overall number of health care professionals grew by 15.1%. In Quebec as a whole and in its regions, the use of English at work increased faster than the knowledge of the minority language.

In Montréal, the use of English in the workplace increased by 18.1%. This rate of increase is almost double that of the number of health care professionals declaring a knowledge of this language (9.6%).

The largest growth in the use of English at least regularly at work was observed in Québec and surrounding area (31.1%). However, in this region, the number of health care professionals saying that they use the minority language most often at work decreased slightly by 1.1%. The growth in the number of all health care professionals went up by 17.0% between 2001 and 2006.

The increase in the use of English at least regularly at work coupled with a decrease in the number of professionals who use it most often was also observed in Eastern Quebec and in the Estrie and South of Quebec regions. As for the number of health care professionals who know English, its growth was positive, but less rapid than that in the number for all health care professionals.

Finally, the Western Quebec and the Rest of the province saw an increase in the number of health care professionals stating that they use English most often at work (13%) while the increase in the number of those who use this language at least regularly at work was 29.7% and 34.4% respectively. Between 2001 and 2006, the number of health care professionals who know the minority language in the Western Quebec region increased by 19.8%, a slightly lower growth rate than that for all health care professionals (23.1%).

Text table 3.2

## Health care professionals using the minority language most often at work, regions, provinces, territories and Canada less Quebec, 2001 and 2006

	Use of the minority language most often at work by place of work					Change in number
	2001		2006			
	number	percentage	number	percentage		
<b>East</b>	<b>320</b>	<b>0.7</b>	<b>440</b>	<b>0.8</b>	<b>37.5</b>	
Newfoundland and Labrador	20	0.1	20	0.1	0.0	
Prince Edward Island	10	0.2	50	1.0	400.0	
Nova Scotia	295	1.0	370	1.1	25.4	
<b>New Brunswick</b>	<b>7,605</b>	<b>34.3</b>	<b>9,015</b>	<b>34.1</b>	<b>18.5*</b>	
North	4,855	81.7	5,630	82.3	16.0*	
South-East	2,400	44.0	3,050	44.9	27.1*	
Rest of New Brunswick	345	3.2	335	2.6	-2.9	
<b>Quebec</b>	<b>29,705</b>	<b>13.3</b>	<b>31,025</b>	<b>12.0</b>	<b>4.4</b>	
East	365	2.9	280	2.0	-23.3	
Estrie and South	1,300	8.0	1,115	5.7	-14.2	
Montréal	25,865	23.5	27,215	21.5	5.2*	
West	880	8.2	995	7.5	13.1	
Québec and surrounding area	440	1.0	435	0.8	-1.1	
Rest of Quebec	870	2.9	985	3.0	13.2	
<b>Ontario</b>	<b>6,740</b>	<b>2.2</b>	<b>7,315</b>	<b>2.0</b>	<b>8.5</b>	
North-East	1,475	9.7	1,590	9.1	7.8	
Ottawa	3,135	12.0	3,415	11.3	8.9	
South-East	1,400	31.9	1,635	33.7	16.8	
Toronto	300	0.4	255	0.3	-15.0	
Rest of Ontario	430	0.2	425	0.2	-1.2	
<b>West</b>	<b>805</b>	<b>0.3</b>	<b>1,055</b>	<b>0.3</b>	<b>31.1*</b>	
Manitoba	520	1.3	630	1.4	21.2	
Saskatchewan	50	0.2	90	0.3	80.0	
Alberta	125	0.1	215	0.2	72.0	
British Columbia	125	0.1	120	0.1	-4.0	
<b>Territories</b>	<b>0</b>	<b>0.0</b>	<b>25</b>	<b>0.9</b>	<b>-</b>	
Yukon	0	0.0	10	0.9	-	
Northwest Territories	0	0.0	0	0.0	-	
Nunavut	0	0.0	10	1.9	-	
<b>Canada less Quebec</b>	<b>15,475</b>	<b>2.4</b>	<b>17,835</b>	<b>2.3</b>	<b>15.3*</b>	

\* the change in number is statistically significant ( $p < 0.05$ ) between 2001 and 2006

**Note(s):** Please refer to the appendix for the descriptive list of regions and their census divisions. Please refer to the methodological note in the appendix regarding explanations about calculating statistical tests.

**Source(s):** Statistics Canada, Census of Population, 20% sample, 2001 and 2006.

Text table 3.3

## Health care professionals using the minority language at least regularly at work, regions, provinces, territories and Canada less Quebec, 2001 and 2006

	Use of the minority language at least regularly at work by place of work				
	2001		2006		Change in number
	number	percentage	number	percentage	
<b>East</b>	<b>1,150</b>	<b>2.4</b>	<b>1,545</b>	<b>2.8</b>	<b>34.3*</b>
Newfoundland and Labrador	105	0.7	180	1.1	71.4
Prince Edward Island	110	2.7	175	3.6	59.1
Nova Scotia	925	3.2	1,210	3.6	30.8*
<b>New Brunswick</b>	<b>9,740</b>	<b>43.9</b>	<b>11,955</b>	<b>45.2</b>	<b>22.7*</b>
North	5,415	91.2	6,235	91.2	15.1*
South-East	5,130	94.0	4,255	62.6	-17.1*
Rest of New Brunswick	1,100	10.2	1,475	11.5	34.1*
<b>Quebec</b>	<b>77,440</b>	<b>34.5</b>	<b>92,845</b>	<b>36.0</b>	<b>19.9*</b>
East	1,965	15.4	2,305	16.8	17.3
Estrie and South	6,665	40.8	7,645	39.4	14.7*
Montréal	56,845	51.7	67,130	52.9	18.1*
West	4,865	45.3	6,310	47.8	29.7*
Québec and surrounding area	3,325	7.5	4,360	8.4	31.1*
Rest of Quebec	3,790	12.6	5,095	15.4	34.4*
<b>Ontario</b>	<b>20,545</b>	<b>6.6</b>	<b>24,215</b>	<b>6.6</b>	<b>17.9*</b>
North-East	4,705	30.9	5,405	31.0	14.9*
Ottawa	9,690	37.1	10,980	36.2	13.3*
South-East	2,340	53.2	2,870	59.2	22.6*
Toronto	1,415	1.7	1,510	1.7	6.7
Rest of Ontario	2,810	1.5	3,450	1.6	22.8*
<b>West</b>	<b>3,240</b>	<b>1.2</b>	<b>4,440</b>	<b>1.4</b>	<b>37.0*</b>
Manitoba	1,400	3.5	1,670	3.8	19.3
Saskatchewan	345	1.1	285	0.8	-17.4
Alberta	995	1.1	1,380	1.2	38.7*
British Columbia	995	0.9	1,115	0.9	12.1
<b>Territories</b>	<b>65</b>	<b>2.8</b>	<b>105</b>	<b>3.7</b>	<b>61.5</b>
Yukon	30	3.4	40	3.7	33.3
Northwest Territories	20	2.0	30	2.4	50.0
Nunavut	0	0.0	35	6.6	-
<b>Canada less Quebec</b>	<b>35,635</b>	<b>5.4</b>	<b>42,260</b>	<b>5.5</b>	<b>18.6*</b>

\* the change in number is statistically significant ( $p < 0.05$ ) between 2001 and 2006

**Note(s):** Please refer to the appendix for the descriptive list of regions and their census divisions. Please refer to the methodological note in the appendix regarding explanations about calculating statistical tests.

**Source(s):** Statistics Canada, Census of Population, 20% sample, 2001 and 2006.

### 3.3 Growth in knowledge of the minority language among various groups of health care professionals in Canada, 2001 to 2006

In general, the number of health care professionals who state that they can conduct a conversation in the minority language increased from 2001 and 2006. Two exceptions were observed – among doctors outside

Quebec and among psychologists and social workers in Quebec, the number of these professionals saying that they know the minority language has dropped.

The number of nurses who can speak French outside Quebec increased by 22.2% while the number of nurses with knowledge of English went up by 7.3% in Quebec. The number of other health care professionals in Quebec who know English increased by 13.1% while the increase in knowledge of French observed outside Quebec was 65.4%.

Text table 3.4

**Health care professionals knowing a minority language by specific groups of health care professionals, Quebec and Canada less Quebec, 2001 and 2006**

	Health care professionals with knowledge of the minority language					
	Canada less Quebec			Quebec		
	2001	2006	Change in number	2001	2006	Change in number
	number		percentage	number		percentage
Doctors	6,600	6,445	-2.3 *	8,655	9,025	4.3 *
Nurses	18,930	23,130	22.2 *	25,665	27,535	7.3 *
Psychologists and social workers	7,410	7,805	5.3 *	10,485	10,125	-3.4 *
Other health care professionals	34,605	57,220	65.4 *	73,505	83,135	13.1 *

\* the change in number is statistically significant ( $p < 0.05$ ) between 2001 and 2006

**Note(s):** Please refer to the methodological note in the appendix regarding explanations about calculating statistical tests.

**Source(s):** Statistics Canada, Census of Population, 20% sample, 2001 and 2006.

### 3.4 Growth of minority language use among various groups of health care professionals in Canada, 2001 to 2006

Slower growth in the number of health care professionals who know the minority language does not necessarily mean that the language is used by fewer professionals at work. It could be that a large proportion of professionals already know the language and consequently the potential for growth in the number of minority language speakers among health care professionals is rather limited. It is obvious that using a minority language in the workplace requires a prior knowledge of that language, but the opposite is not necessarily true: knowledge of the minority language does not automatically result in it being used at work in all cases. Increased demand, awareness of the need to provide this service, greater proficiency in the second language or legislative measures concerning the supply of services in the minority language are all factors that might motivate a health care professional who already knows the minority language to start using it at work. It is this change in the number of health care professionals who use the minority language at work that is described in the next section.

#### 3.4.1 Provinces where French is the minority language

Among doctors, the decrease in the number of individuals with knowledge of French in the provinces

outside Quebec (-2.3%) is accompanied by a drop in the number of doctors who use this language at least regularly at work (-10.8%). However, this decrease is over four times greater than the decrease in the number of doctors who say that they know French. This phenomenon leads one to conclude that even doctors who previously used French at work stopped using it. It should be noted that the number of doctors outside Quebec decreased by 1.4% between 2001 and 2006.

Among nurses, increased use of French at least regularly at work was noted between the two censuses. Moreover, the number of nurses who can speak French and of those who use it at work increased along with the total number of nurses. The 22.2% increase in the number of nurses with knowledge of French was matched by a 20.0% increase in the number of those who use French at least regularly at work.<sup>9</sup> The number of nurses working outside Quebec grew by 19.7%.

Among psychologists and social workers, the number of professionals who use French at least regularly at work increased by 16.4%. Likewise, the number of professionals who say that they use the minority language most often at work went up by 12.7%. By comparison, the number of people with knowledge of the minority language only grew 5.3% during that period, which more or less matches the growth in the number of these professionals (6.3%).

Finally, the number of other health care professionals went up by 17.7%. The growth in the use of French

9. The growth in the use of French most often at work by nurses outside Quebec was 12.8% between 2001 and 2006.

at work (both most often and at least regularly) was about the same (17.4% and 21.2% respectively) while that of the knowledge of the minority language was significantly greater (65.4 %)

### 3.4.2 Use of English at work in the province of Quebec

The number of health care professionals who use English at least regularly at work increased among all groups of health care professionals, while its predominant use decreased in two groups and increased in the two others.

Among doctors, the use of English at least regularly at work went up by 7.8% while the use of English most often went down by 7.8%. Knowledge of this language increased by 4.3%. The number of these professionals went up by 10.0% between 2001 and 2006. Fewer psychologists and social workers used English most often at work (-1.2%).

This decrease in the use of the minority language most often at work was accompanied by a drop of 3.4% in

knowledge of English among psychologists and social workers and an increase of 5.0% in the use of the minority language at least regularly in the workplace. Over that same period, the number of all psychologists and social workers increased by 6.4%.

Among nurses who use English at least regularly, an increase of 17.5% was noted between 2001 and 2006.<sup>10</sup> The number of these professionals increased by almost 10.7% during the same five-year period. The number of other health care professionals using English at least regularly at work increased by 23.7%, while the rate of knowledge of this language went up by 13.1%.

In Quebec, the use of English at least regularly by nurses and other health care professionals increased more rapidly than the numbers of these professionals. Likewise, the use of English at least regularly at work increased more rapidly than the knowledge of this language.

10. The use of English most often at work among nurses increased by 1.4%.

#### Text table 3.5

#### Health care professionals using the minority language most often at work by specific groups of health care professionals, Quebec and Canada less Quebec, 2001 and 2006

	Health care professionals using the minority language most often at work					
	Canada less Quebec			Quebec		
	2001	2006	Change in number	2001	2006	Change in number
	number		percentage	number		percentage
Doctors	505	515	2.0 *	1,665	1,535	-7.8 *
Nurses	4,300	4,850	12.8 *	7,690	7,795	1.4 *
Psychologists and social workers	1,295	1,460	12.7 *	2,090	2,065	-1.2 *
Other health care professionals	9,375	11,010	17.4 *	18,260	19,630	7.5 *

\* the change in number is statistically significant ( $p < 0.05$ ) between 2001 and 2006

**Note(s):** Please refer to the methodological note in the appendix regarding explanations about calculating statistical tests.

**Source(s):** Statistics Canada, Census of Population, 20% sample, 2001 and 2006.

Text table 3.6

### Health care professionals using the minority language at least regularly at work by specific groups of health care professionals, Quebec and Canada less Quebec, 2001 and 2006

	Health care professional using the minority language at least regularly at work					
	Canada less Quebec			Quebec		
	2001	2006	Change in number	2001	2006	Change in number
	number		percentage	number		percentage
Doctors	2,085	1,860	-10.8 *	5,005	5,395	7.8 *
Nurses	9,945	11,935	20.0 *	19,190	22,555	17.5 *
Psychologists and social workers	2,900	3,375	16.4 *	5,110	5,365	5.0 *
Other health care professionals	20,705	25,090	21.2 *	48,135	59,530	23.7 *

\* the change in number is statistically significant ( $p < 0.05$ ) between 2001 and 2006

**Note(s):** Please refer to the methodological note in the appendix regarding explanations about calculating statistical tests.

**Source(s):** Statistics Canada, Census of Population, 20% sample, 2001 and 2006.

## 3.5 Proportion of health care professionals who use the minority language at work by their first official minority or majority language

This section explores the first official language spoken by health care professionals who say that they use the minority language at work. In other words, do doctors who use French at work outside Quebec do so because they have French as their first official language spoken? What proportion of health care professionals using the minority language at work have this minority language as their second language?

### 3.5.1 Eastern, Western and Northern Canada

The situation varies greatly in the six provinces and three territories outside New Brunswick, Ontario and Quebec. In Newfoundland and Labrador, for example, almost all the health care professionals who use the minority language at least regularly at work (94.7%) have English as their first official language.

In Prince Edward Island, a third of all health care professionals who use French at least regularly at work have this language as their first official language. In Nova Scotia, it is mostly French-speaking health care professionals who use this language at least regularly at work (about two thirds of them). In this province, the use of the minority language most often at work

is mainly observed among health care professionals belonging to the minority language group.

In Manitoba and Saskatchewan, the proportion of health care professionals who use French at work and who have this language as their first official language exceeds 50% while in Alberta and British Columbia, it ranges from 48.1% to 38.5% respectively. In Manitoba, over 80% of health care professionals who say that they use French most often at work are French-speakers.

### 3.5.2 New Brunswick and Ontario

A large majority (almost 80%) of health care professionals in New Brunswick who use French at least regularly at work have French as their first official language spoken, particularly in the regions where Francophones constitute the greater part of the population. Thus, 86.8% of all health care professionals in the North of the province who use the minority language at least regularly at work have this language as their first official language spoken. Even in the Rest of New Brunswick, almost half (46.6%) of these professionals are Francophones. The proportion of health care professionals who say that they use French most often at work and whose first official language is also French exceeds 90% in the North and South-East of the province while it is about 72.1% in the Rest of New Brunswick.

In Ontario, 55.4% of all health care professionals who use the minority language at least regularly at work belong to the French-speaking group. The

relative share of French as the first official language among these professionals is particularly high in the North-East and South-East of the province, about 65%. By comparison, this proportion is 55% in the Ottawa area. The use of the minority language most often at work is mainly observed among professionals whose first official language is French. The proportion of these professionals ranges from 48.9% in the Rest of Ontario to 87.1% in the Southeastern Ontario.

Finally, in Toronto, 69.9% of health care professionals who use French at least regularly at work have English as their first official language, while in the Rest of the province, they are divided almost equally between Francophones (43.5%) and Anglophones (56.5%).

### 3.5.3 Quebec

In Quebec, it is mainly professionals of the minority language community who use English at least regularly at work (74.6%). In all regions, their proportion exceeds 80% except in Montréal where it is 69%. In Québec and surrounding area, nine out of ten professionals who use the minority language at least regularly at work have French as their first official

language spoken (94%), while in the Rest of Quebec it is more than seven out of ten (85.8%).

Unlike in anglophone provinces where professionals who use French at work come mainly from the minority language community in regions where Francophones are very concentrated, in Quebec this relationship is much less direct. In Montréal, where 80.5% of the province's English-speaking population live, 69.1% of the professionals who use this language at least regularly at work have it as their first official language. By comparison, in Northern of New Brunswick, where 54.1% of the province's Francophones live, 86.8% of health care professionals who use French at least regularly at work are Francophones.

However, the use of English most often at work by health care professionals in Quebec is characteristic of professionals whose first official language is English (60.1%) (see Table 3.8). This situation is also observed in the Eastern Quebec (55.6%) and Montréal (62.6%). Only in the Western Quebec is the proportion of French-speaking health care professionals who use English most often at work much greater (81.3%) than the use of English by English-speaking professionals.

Text table 3.7

## Health care professionals using the minority language at least regularly at work by the majority or minority official language, regions, provinces, territories and Canada less Quebec, 2006

	All health care professionals using the minority language at least regularly at work				
	Total	First official language is the majority language		First official language is the minority language	
	number	number	percentage	number	percentage
<b>East</b>	<b>1,545</b>	<b>750</b>	<b>48.4</b>	<b>795</b>	<b>51.6</b>
Newfoundland and Labrador	170	160	94.7	10	5.3
Prince Edward Island	170	105	62.9	65	37.1
Nova Scotia	1,205	480	39.8	725	60.2
<b>New Brunswick</b>	<b>11,955</b>	<b>2,425</b>	<b>20.3</b>	<b>9,530</b>	<b>79.7</b>
North	6,230	820	13.2	5,410	86.8
South-East	4,250	815	19.2	3,435	80.8
Rest of New Brunswick	1,475	790	53.4	690	46.6
<b>Quebec</b>	<b>92,765</b>	<b>69,200</b>	<b>74.6</b>	<b>23,560</b>	<b>25.4</b>
East	2,305	2,030	88.0	275	12.0
Estrie and South	7,650	6,730	88.0	915	12.0
Montréal	67,055	46,355	69.1	20,700	30.9
West	4,360	4,095	94.0	260	6.0
Québec and surrounding area	6,315	5,630	89.1	685	10.9
Rest of Quebec	5,090	4,365	85.8	725	14.2
<b>Ontario</b>	<b>24,210</b>	<b>10,795</b>	<b>44.6</b>	<b>13,415</b>	<b>55.4</b>
North-East	5,405	1,860	34.4	3,550	65.6
Ottawa	10,980	4,935	45.0	6,045	55.0
South-East	2,870	1,000	34.7	1,875	65.3
Toronto	1,505	1,050	69.9	455	30.1
Rest of Ontario	3,450	1,950	56.5	1,500	43.5
<b>West</b>	<b>4,440</b>	<b>2,210</b>	<b>49.8</b>	<b>2,230</b>	<b>50.2</b>
Manitoba	1,675	680	40.6	995	59.4
Saskatchewan	280	130	47.5	145	52.5
Alberta	1,375	715	51.9	660	48.1
British Columbia	1,110	685	61.5	430	38.5
<b>Territories</b>	<b>105</b>	<b>50</b>	<b>45.2</b>	<b>60</b>	<b>54.8</b>
Yukon	45	15	35.6	30	64.4
Northwest Territories	30	20	69.6	10	30.4
Nunavut	30	10	37.5	20	62.5
<b>Canada less Quebec</b>	<b>177,265</b>	<b>56,000</b>	<b>31.6</b>	<b>121,265</b>	<b>68.4</b>

**Note(s):** Please refer to the appendix for the descriptive list of regions and their census divisions. Please refer to the methodological note in the appendix regarding explanations about calculating statistical tests.

**Source(s):** Statistics Canada, Census of Population, 20% sample, 2006.

Text table 3.8

## Health care professionals using most often the minority language at work by the majority or minority official language, regions, provinces, territories and Canada less Quebec, 2006

	All health care professionals using most often the minority language at work				
	Total	First official language is the majority language		First official language is the minority language	
	number	number	percentage	number	percentage
<b>East</b>	<b>430</b>	<b>110</b>	<b>25.1</b>	<b>320</b>	<b>74.9</b>
Newfoundland and Labrador	15	10	70.6	10	29.4
Prince Edward Island	45	25	54.3	20	45.7
Nova Scotia	365	70	19.3	295	80.7
<b>New Brunswick</b>	<b>9,015</b>	<b>710</b>	<b>7.9</b>	<b>8,305</b>	<b>92.1</b>
North	5,625	385	6.8	5,240	93.2
South-East	3,055	235	7.6	2,825	92.4
Rest of New Brunswick	330	95	27.9	240	72.1
<b>Quebec</b>	<b>30,980</b>	<b>12,348</b>	<b>39.9</b>	<b>18,631</b>	<b>60.1</b>
East	285	127	44.4	159	55.6
Estrie and South	1,115	579	52.0	534	48.0
Montréal	27,175	10,154	37.4	17,021	62.6
West	430	350	81.3	81	18.7
Québec and surrounding area	1,000	546	54.8	451	45.2
Rest of Quebec	980	593	60.5	387	39.5
<b>Ontario</b>	<b>7,315</b>	<b>1,344</b>	<b>18.4</b>	<b>5,972</b>	<b>81.6</b>
North-East	1,590	210	13.4	1,375	86.6
Ottawa	3,415	595	17.4	2,820	82.6
South-East	1,630	210	12.9	1,420	87.1
Toronto	250	110	43.2	140	56.8
Rest of Ontario	430	220	51.1	210	48.9
<b>West</b>	<b>1,050</b>	<b>335</b>	<b>31.9</b>	<b>715</b>	<b>68.1</b>
Manitoba	635	110	17.4	525	82.6
Saskatchewan	85	35	44.0	45	56.0
Alberta	210	110	51.9	100	48.1
British Columbia	120	80	63.9	45	36.1
<b>Territories</b>	<b>20</b>	<b>10</b>	<b>28.6</b>	<b>15</b>	<b>71.4</b>
Yukon	10	0	0.0	10	100.0
Northwest Territories	0	10	100.0	0	0.0
Nunavut	10	0	0.0	10	100.0
<b>Canada less Quebec</b>	<b>66,645</b>	<b>23,635</b>	<b>35.5</b>	<b>43,010</b>	<b>64.5</b>

**Note(s):** Please refer to the appendix for the descriptive list of regions and their census divisions. Please refer to the methodological note in the appendix regarding explanations about calculating statistical tests.

**Source(s):** Statistics Canada, Census of Population, 20% sample, 2006.

Text table 3.9

## Health care professionals using regularly a minority language at work by the majority or minority official language, regions, provinces, territories and Canada less Quebec, 2006

	All health care professionals using regularly a minority language at work				
	Total	First official language is the majority language		First official language is the minority language	
	number	number	percentage	number	percentage
<b>East</b>	<b>1,115</b>	<b>640</b>	<b>57.4</b>	<b>475</b>	<b>42.6</b>
Newfoundland and Labrador	155	150	97.4	0	2.6
Prince Edward Island	125	80	66.1	40	33.9
Nova Scotia	835	410	48.7	430	51.3
<b>New Brunswick</b>	<b>2,940</b>	<b>1,715</b>	<b>58.3</b>	<b>1,225</b>	<b>41.7</b>
North	600	435	72.1	170	27.9
South-East	1,195	585	48.9	610	51.1
Rest of New Brunswick	1,140	695	60.8	445	39.2
<b>Quebec</b>	<b>61,785</b>	<b>56,855</b>	<b>92.0</b>	<b>4,930</b>	<b>8.0</b>
East	2,020	1,900	94.2	118	5.8
Estrie and South	6,535	6,153	94.2	381	5.8
Montréal	39,880	36,201	90.8	3,680	9.2
West	3,925	3,747	95.4	181	4.6
Québec and surrounding area	5,320	5,083	95.6	235	4.4
Rest of Quebec	4,110	3,773	91.8	336	8.2
<b>Ontario</b>	<b>16,890</b>	<b>9,450</b>	<b>55.9</b>	<b>7,443</b>	<b>44.1</b>
North-East	3,820	1,645	43.1	2,170	56.9
Ottawa	7,560	4,345	57.4	3,220	42.6
South-East	1,235	785	63.6	450	36.4
Toronto	1,255	945	75.2	310	24.8
Rest of Ontario	3,020	1,730	57.3	1,290	42.7
<b>West</b>	<b>3,385</b>	<b>1,870</b>	<b>55.3</b>	<b>1,515</b>	<b>44.7</b>
Manitoba	1,040	570	54.7	470	45.3
Saskatchewan	195	95	49.0	100	51.0
Alberta	1,160	605	51.9	560	48.1
British Columbia	990	605	61.2	385	38.8
<b>Territories</b>	<b>85</b>	<b>40</b>	<b>49.4</b>	<b>45</b>	<b>50.6</b>
Yukon	40	15	42.1	20	57.9
Northwest Territories	20	15	61.4	10	38.6
Nunavut	25	10	50.0	10	50.0
<b>Canada less Quebec</b>	<b>110,620</b>	<b>32,365</b>	<b>29.3</b>	<b>78,255</b>	<b>70.7</b>

**Note(s):** Please refer to the appendix for the descriptive list of regions and their census divisions. Please refer to the methodological note in the appendix regarding explanations about calculating statistical tests.

**Source(s):** Statistics Canada, Census of Population, 20% sample, 2006.

## Section 4

### Conclusion

The purpose of this overview of the characteristics and language use of certain groups of health care professionals who serve or might serve official-language minority communities (OLMC) is, on the one hand, to compare the proportional distribution of these professionals to those of minority populations and, on the other hand, to determine how many of these health care professionals use the minority language at work or know that language.

This study was conducted in the context of the Government of Canada's *Roadmap for Canada's Linguistic Duality 2008-2013*<sup>1</sup> and Health Canada's Official Languages Health Contribution Program.<sup>2</sup>

Since the goal of this program is to improve access to health services in the minority official language for OLMCs, Health Canada wanted to ascertain through a statistical study what the human resource situation is in providing or capable of providing health services in the language of the minority.

Although many of the statistics presented in this study may at first sight seem to indicate that in certain regions the number of minority official language or bilingual health care professionals able to provide services in this language is sufficient or adequate, the reality is much more complex and more studies will be necessary to better understand the situation in Canada as a whole and in the specific regions where OLMCs are found.

In order for services to actually be available and effective, several factors must exist to create the conditions necessary to actively provide those services, one of which is the availability of health care professionals. Among the other factors most often mentioned in relation to minority language health services are: organization of services, service plans adapted to each community, the value placed on the

use of the minority official language by professionals, professional recognition of bilingualism, promotion of the services offered, the visibility of the available services, and the legal or regulatory framework at the provincial or territorial level governing the provision of minority language services.

The demographic situation of OLMCs varies from one region of the country to another. Apart from their demographic characteristics, disparities among communities are also observed in health determinants. For example, income levels and social status, social support networks, education and literacy, to name only a few, are all determinants that vary among communities.

This report first presented results from the 2006 Census and then compared those results with those from the 2001 Census. Overall, these results reveal significant differences among the provinces as well as among regions in Ontario, Quebec and New Brunswick.

In Quebec, the use of English at least on a regular basis by health care professionals is widespread. Thus, while the official-language minority population constitutes 13.4% of the province's total population, over 50% of doctors say that they use English at least regularly in their work. However, among nurses, social workers, psychologists and other health care professionals, those proportions are between 30% and 35%. Moreover, health care professionals practicing in Quebec have a very high level of knowledge of English. Of course, such results do not necessarily mean that all of Quebec's Anglophones obtain services or can get served in English when interacting with health care professionals. However, the data do indicate a strong presence of English in professional medical practice.

Outside Quebec, Ontario and New Brunswick, results in the provinces and territories generally reflect the small numbers and proportions represented by OLMCs there. That being said, we note however that in some provinces, the use of French at least regularly at work is sometimes greater than the relative weight of the French-language population. Moreover, the proportion of health care professionals who state that they can

1. *Roadmap for Canada's Linguistic Duality 2008-2013: Acting for the Future*, Government of Canada, 2008, Catalog No. CH14-21/2008.  
2. Official Languages Health Contribution Program 2008-2013, Health Canada.

hold a conversation in French is much higher than the proportion of those who use it at work.

The case of Ontario is noteworthy in this regard. For example, 23% of the province's doctors can converse in French, but 7% use it at least regularly at work. When we look at the situation and compare the proportion of the first official language spoken by doctors to that of the population, we note that in Northeastern Ontario, for example, Francophones represent 25% of the population while 7% of doctors have French as their first official language. In the Southeastern part of that province, those proportions are 41% and 32% respectively.

As we pointed out in the first pages of this report, access to health services in the minority official language as well as the supply of such services by health care professionals depend on several factors and cannot be measured directly using Census data. Factors such as the proximity of minority service users and providers, the active offering of those services and the degree to which users ask for them greatly influence the language orientation of professional/user interactions.

Moreover, as Carter<sup>3</sup> points out, a distinction must be made between services in the minority language provided on a voluntary basis and acquired rights to access such services. When there are legal obligations ensuring access to services, as is the case in Quebec, New Brunswick and certain regions in Ontario, challenges with facilitating access to those services are very different from situations where such obligations do not exist.

Finally, since a large proportion of the French-speaking population outside Quebec (39%) state that they feel more at ease in English than in French, as is shown by SVOLM data (2006), conclusions drawn from comparing the relative weights of French-language populations and the use of this language at work by health care professionals must take such information into account. For example, in 2006, 45% of the French-language population outside Quebec lived in municipalities where they represented less than 10% of the population. Of these, 59% said they were more at ease in English than in French.

3. Carter, Jim (2008). "What Future for English-Language Health and Social Services in Quebec?" in R.Y. Bourhis (ed.) *The Vitality of the English-Speaking Communities of Quebec: From Community Decline to Revival*. Montreal, Quebec: Ceetum, Université de Montréal, p. 93.

The Census is a valuable source of information on professions, language knowledge and use at very detailed geographic levels. However, respondents' statements regarding minority language use at work say nothing about either the demand for or supply of services in this language. Only a detailed analysis of linguistic interactions between health care professionals and patients that take the context of these interactions into account can tell us about the actual supply of and demand for services in the minority language. In this regard, the Survey on the Vitality of Official-Language Minorities (SVOLM) contains useful information on the language respondents use when they meet with health care professionals. For example, in Quebec, 72% of English-speaking adults say that they use only the minority language when visiting their family doctor (52% with a nurse). In Ontario, the proportion of French-speaking adults who use mainly or only French with their family doctor is 31% while in Manitoba it is only 14%.

This report provides a first general analysis of the characteristics and language use of health care professionals in relation to their relative share of the official-language minority populations in the provinces and regions. Thus, a number of possible areas of exploration might be looked at. This study is a guidepost to a better understanding of obstacles in accessing health services in minority official languages in Canada. It raises part of the veil covering this very complex situation and thus paves the way to other avenues of research useful to the development of public policy. Given the differential results observed from one region to another, one possible area of study would be to show how the relative weight of minority official language speakers and their concentration in certain municipalities or neighbourhoods are related to different language use. It might be useful, for example, to combine SVOLM data with the statistics presented in this study by examining, on the one hand, issues related to the demand for health care services and the actual use of the minority language in interactions with health care professionals and, on the other hand, the numbers, characteristics and language use of these professionals within OLMCs.

Another possible area of study would be to examine the relationship between living in an urban versus a rural area and receiving or not receiving services in the minority language. Many health services are mainly provided in urban areas while people living in rural areas or far from urban centers no doubt have more

difficulty accessing health care professionals who use the minority official language.

Future studies might also focus on the characteristics of specific groups of health care professionals that were not studied in this report. Provided the sample size is sufficient, it would be useful to present the trends and the geographic distribution of these professionals and information on their ability to speak the minority official language.

This report is intended as a first step in exploring pools of health care professionals capable of providing

services in one or the other minority official language in Canada. Despite the severe limitations of the Census when analyzing small populations or small geographic units, Census data, in conjunction with other data sources, is a very useful source of information and provides a good reference base for orienting future work aimed at furthering the study of access to health care in the minority official language.

# Appendix A

## List of regions and their census divisions

Provinces and regions	Corresponding Census Divisions (CD)
<b>New Brunswick</b>	
South-East	Kent (1308) and Westmorland (1307)
North	Madawaska (1313), Restigouche (1314), Victoria (1312) and Gloucester (1315)
Rest of New Brunswick	Northumberland (1309) and all other CDs
<b>Quebec</b>	
East	<p><b>Gaspésie-Îles-de-la-Madeleine:</b> Les Îles-de-la-Madeleine (2401), Le Rocher Percé (2402), La Côte-de-Gaspé (2403), La Haute-Gaspésie (2404), Bonaventure (2405) and Avignon (2406)</p> <p><b>North Coast:</b> La Haute-Côte-Nord (2495), Manicouagan (2496), Sept-Rivières-Caniapiscau (2497) and Minganie-Basse-Côte-Nord (2498)</p> <p><b>Lower-Saint-Laurent:</b> La Matapédia (2407), Matane (2408), La Mitis (2409), Rimouski-Neigette (2410), Les Basques (2411), Rivière-du-Loup (2412), Témiscouata (2413) and Kamouraska (2414)</p>
Quebec and surrounding area	<p><b>National Capital Region:</b> Charlevoix-Est (2415), Charlevoix (2416), L'Île-d'Orléans (2420), La Côte-de-Beaupré (2421), La Jacques-Cartier (2422), Communauté-Urbaine-de-Québec (2423) and Portneuf (2434)</p> <p><b>Chaudière-Appalaches:</b> L'Islet (2417), Montmagny (2418), Bellechasse (2419), Desjardins (2424), Les Chutes-de-la-Chaudière (2425), La Nouvelle-Beauce (2426), Robert-Cliche (2427), Les Etchemins (2428), Beauce-Sartigan (2429), L'Amiante (2431) and Lotbinière (2433)</p> <p><b>Saguenay-Lac-Saint-Jean:</b> Le Domaine-du-Roy (2491), Maria-Chapdelaine (2492), Lac-Saint-Jean-Est (2493), Le Fjord-du-Saguenay (2493)</p>
Estrie and South	<p><b>Estrie:</b> Le Granit (2430), Asbestos (2440), Le Haut-Saint-François (2441), Le Val-Saint-François (2442), La Région-Sherbrookoise (2443), Coaticook (2444) and Memphrémagog (2445)</p> <p><b>Sud du Québec (partie de la Montérégie):</b> Brome-Missisquoi (2446), La Haute-Yamaska (2447), Acton (2448), Le Haut-Richelieu (2456), Les Jardins-de-Napierville (2468) and Le Haut-Saint-Laurent (2469).</p>
Montréal	Metropolitan Region of Montreal (RMR: 462)

<b>Provinces and regions</b>	<b>Corresponding Census Divisions (CD)</b>
West	<p><b>Outaouais:</b> Papineau (2480), CUO (2481), Les Collines-de-l'Outaouais (2482), La Vallée-de-la-Gatineau (2483) and Pontiac (2484)</p> <p><b>Abitibi-Témiscamingue:</b> Témiscamingue (2485), Rouyn-Noranda (2486), Abitibi-Ouest (2487), Abitibi (2488) and Vallée-de-l'Or (2489)</p>
Rest of Quebec	All other CDs and the parts of CDs that are not part of the Montreal CMA.
<b>Ontario</b>	
South-East	Stormont, Dundas and Glengarry United Counties (3501) and Prescott and Russell United Counties (3502)
Ottawa	Ottawa Division (3506)
North-East	Nipissing District (3548), Sudbury District (3552), Greater Sudbury (3553), Timiskaming District (3554), Cochrane District (3556) and Algoma (3557)
Toronto	Toronto (3520)
Rest of Ontario	All other CDs

Text table 1

## Health care professionals, regions, provinces, territories and Canada less Quebec, 2001 and 2006

	Health care professionals		
	2001	2006	Change in number
	number		percentage
<b>East</b>	<b>48,445</b>	<b>54,760</b>	<b>13.0*</b>
Newfoundland and Labrador	15,240	16,780	10.1*
Prince Edward Island	4,110	4,800	16.8*
Nova Scotia	29,095	33,185	14.1*
<b>New Brunswick</b>	<b>22,200</b>	<b>26,450</b>	<b>19.1*</b>
North	5,940	6,840	15.2*
South-East	5,455	6,800	24.7*
Rest of New Brunswick	10,820	12,815	18.4*
<b>Quebec</b>	<b>224,140</b>	<b>258,030</b>	<b>15.1*</b>
East	12,745	13,725	7.7*
Estrie and South	16,340	19,425	18.9*
Montréal	109,910	126,800	15.4*
West	10,735	13,210	23.1*
Québec and surrounding area	44,255	51,790	17.0*
Rest of Quebec	30,155	33,080	9.7*
<b>Ontario</b>	<b>310,625</b>	<b>365,270</b>	<b>17.6*</b>
North-East	15,215	17,435	14.6*
Ottawa	26,090	30,320	16.2*
South-East	4,395	4,850	10.4
Toronto	81,135	90,985	12.1*
Rest of Ontario	183,785	221,670	20.6*
<b>West</b>	<b>273,890</b>	<b>317,175</b>	<b>15.8*</b>
Manitoba	39,845	43,465	9.1*
Saskatchewan	32,625	35,110	7.6*
Alberta	88,760	111,330	25.4*
British Columbia	112,660	127,270	13.0*
<b>Territories</b>	<b>2,305</b>	<b>2,830</b>	<b>22.8*</b>
Yukon	875	1,070	22.3*
Northwest Territories	1,005	1,230	22.4*
Nunavut	425	530	24.7*
<b>Canada less Quebec</b>	<b>657,465</b>	<b>766,485</b>	<b>16.6*</b>

\* the change in number is statistically significant ( $p < 0.05$ ) between 2001 and 2006

**Note(s):** Please refer to the appendix for the descriptive list of regions and their census divisions. Please refer to the methodological note in the appendix regarding explanations about calculating statistical tests.

**Source(s):** Statistics Canada, Census of Population, 20% sample, 2001 and 2006.

### Methodological note<sup>1</sup>

The information presented in this report relies on the data provided by the 2B Census questionnaire (long form) administered to one out of five Canadian households. It is a large sample, of about 20% of the Canadian population (6.2 million people).

Sampling is an integral part of census-taking. Its use can lead to substantial reductions in costs and respondent burden associated with a census, or alternatively, can allow the scope of a census to be broadened at the same cost. The price paid for these advantages is the introduction of sampling error to census figures that are based on the sample. The effect of sampling is most important for small census figures, whether they are counts for rare categories at the national or provincial level or counts for categories in small geographic areas. Within the current study, specific provinces, territories and sub-provincial areas with low numbers of health care professionals whose first official language spoken is a minority language or who use the minority language at work do not generally provide statistically reliable estimates of these professionals. Therefore, statistical tests have not been applied in the provinces, territories or sub-provincial areas with less than 400 health care professionals, where the total number of official-language minority health care professionals or those who know or use the official minority language at work is less than 20.

1. Some paragraphs of this methodological note have been reprinted directly or are an adaptation of certain sections of the 2001 Census Technical Report. Since the 2006 Census Technical Report is not currently available, the information provided in the 2001 report was used. Adjustment factors for 2006 will likely be very similar to those of 2001, and will not generally modify the results of the statistical tests.

For a given sample design and a given estimation procedure, one can, from sampling theory, make a statement about the chances that a certain interval will contain the unknown population value being estimated. The primary criterion in the choice of an estimation procedure is minimization of the width of such intervals so that these statements about the unknown population values are as precise as possible. The usual measure of precision for comparing estimation procedures is known as the standard error. Provided that certain relatively soft conditions are met, intervals of plus or minus two standard errors from the estimate will contain the population value for approximately 95% of all possible samples.

### Sampling Variance

Sampling error can be divided into two components: variance and bias. The variance measures the variability of the estimate about its average value in hypothetical repetitions of the survey process, while the bias is defined as the difference between the average value of the estimate in hypothetical repetitions and the true value being estimated. Even with a perfectly unbiased sampling method, the results would still be subject to variance, simply because the estimates are based only on a sample. The variance may be estimated using the data collected by the sample survey. The Sampling Variance Study was carried out to estimate the effect of the sampling and estimation procedures on those census figures that are based on sample data.

On the basis of the 2B sample data, thousands of tables are produced by Statistics Canada. Conceptually, a measurement of precision, the estimated sampling variance, can be associated with every estimate calculated in these tables. This measurement takes into account both the sample design and the estimation method. In practice, however, it cannot be calculated for every census estimate because of high data processing costs. Sampling variance is thus estimated for only a subset of census estimates. From this, the combined effect of the sample design and the estimation method on the sampling variance can be estimated. Simple estimates of sampling variance, which are inexpensive to calculate, can then be adjusted for this impact to produce estimates of sampling variance for any census estimates.

The square root of the sampling variance is known as the standard error. The following formula may be used to calculate the non-adjusted standard errors (NASE) for any estimated total for an area of any size:

$$NASE = \sqrt{\frac{4E(N - E)}{N}}$$

where NASE is the non-adjusted standard error, E is the estimated total and N is the total number of persons, households, dwellings or families in the area. For example, for an estimated total of 750 persons in an area with a total of 9,000 persons, the non-adjusted standard error would be:

$$\sqrt{\frac{4(750)(9000 - 750)}{9000}} = 52$$

The 2001 Census Technical Report provides adjustment factors by which the non adjusted standard errors should be multiplied to adjust for the combined effect of the sample design and the estimation procedure. To calculate these adjustment factors, sampling variance estimates were calculated for regression estimates for different categories of all of the characteristics given in Table 9.2 of the 2001 Census Technical Report. This was done for each sampled Weighting Area (WA). The provincial- and national-level sampling variance estimates were obtained by summing up the WA-level estimates. The adjustment factors were calculated for each characteristic in each category by dividing the square roots of these estimates by the non-adjusted standard errors. Adjustment factors were calculated at the provincial and national levels for each characteristic by averaging the adjustment factors for all of its categories. For further information, see the 2001 Census Technical Report available on the Statistics Canada web site.

To estimate the standard error for a given census sample estimate, the user should determine the adjustment factor, found in the 2001 Census Technical Report, that applies to the chosen characteristic and multiply this factor by

the non adjusted standard error obtained. The Technical Report provides adjustment factors for a wide range of characteristics, both at the national and provincial levels, as well as for Weighting Areas.

Unless the area is smaller than a province, the “National or Provincial Factor” column should be selected. Adjustment factors are given for different provinces only where they differ significantly from those at the national level; this only occurred for some of the language characteristics. It should be noted that since no sampling occurred in the Northwest Territories or Nunavut, the adjustment factors for all characteristics in these territories should be zero. Since sampling was done in the Yukon, the “Other provinces” adjustment factor should be used, when available. If an adjustment factor is needed for a census estimate associated with an area smaller than a province, then the percentiles of WA-level factors will provide a more accurate value. The percentiles give the spread of all the adjustment factors calculated in the study at the WA level for the different category characteristics. N% of the adjustment factors at the WA level are below the Nth percentile and 100 - N% are above the Nth percentile. For example, 90% of the WA-level adjustment factors are below the 90<sup>th</sup> percentile and 10% are above it. The choice of which percentile to use will depend on how conservative a standard error estimate is being sought. For example, the 99<sup>th</sup> percentile would provide a very conservative estimate, while the 75<sup>th</sup> percentile would provide a somewhat less conservative one.<sup>2</sup>

The following example illustrates how to calculate the adjusted standard errors. While referring to the numbers included in Table 2.1, suppose the estimate of interest is the number of persons speaking French as their first official language in Ontario. The 2006 estimate for this characteristic was 537,595. The 2006 Census count for the population of Ontario was 12,028,900. Since neither number is very close to any of the values given in Table 9.1 of the 2001 Census Technical Report, the formula given to calculate the non-adjusted standard error should be used. In this case the result would be 1,433.3. From Table 9.2, the Ontario (Other provinces) adjustment factor for the characteristic “first official language spoken = French” is 1.27. Consequently, the adjusted standard error for this estimate is  $1,433.3 \times 1.27 = 1,820.3$ . The variance of this estimate is calculated by squaring the value of the standard error, and is equal to 3,313,321.

The sample estimate and its standard error may be used to construct an interval within which the unknown population value is expected to be contained with a prescribed confidence. The particular sample selected in this survey is one of a large number of possible samples of the same size that could have been selected using the same sample design. Estimates derived from the different samples would differ from each other. If intervals from two standard errors below the estimate to two standard errors above the estimate were constructed using each of the possible estimates, then approximately 19 out of 20 such intervals would include the value normally obtained in a complete census. Such an interval is called a 95% ( $19 \div 20 = 95\%$ ) confidence interval. In order to guarantee 95% confidence however, these intervals must be calculated using the true standard errors of the sample estimates.

The adjusted standard errors calculated from tables 9.1 and 9.2 from the 2001 Census Technical Report are only estimates of the true standard errors. For provincial- and national-level sample estimates however, the adjusted standard errors should be close enough to the true standard errors so as to produce approximate 95% confidence intervals of reasonable precision. Below the provincial level, the adjusted standard errors may not be accurate enough for this purpose.

The following example sheds light on how it was determined, from Table 2.1 of the current document, that the difference in proportions between the total population of Ontario whose first official language spoken (4.5%) is French and the number of doctors having French as their first official language and practicing in Ontario (3.5%) is statistically significant.

Using the NASE formula, multiplied by the adjustment factor as described above and then squared (as to obtain the variance of the estimate), one can calculate the variance of the total population having French as their first official language spoken (FOLS) in Ontario (3,313,321). Likewise, the variance of the proportion represented by this population ( $P_a$ ) results from dividing the variance of the total French-speaking population (3,313,321) by the

2. In order to calculate the standard errors for the sub-provincial areas, the 75<sup>th</sup> percentile was used at the WA level.

square of the total population in Ontario (12,028,900). Therefore, the variance of the proportion represented by the French-speaking population is equal to  $2.3 \times 10^{-8}$ .

Upon examining the proportion represented by doctors who live in Ontario and whose first official language is French (3.5%), the same process can be applied. Hence, using the same NASE formula multiplied by the adjustment factor of 1.27, after squaring it (to obtain the variance of the estimate), the variance of the number of doctors whose first official spoken language is French comes to 3,451. Likewise, the variance of the proportion represented by this professional group ( $P_b$ ) results from the operation dividing the variance (3,451) by the squared total number of doctors in the province (15,225 doctors), that is  $1.0 \times 10^{-5}$ .

The standard error is then calculated, to determine the interval between the proportion of the French-speaking population ( $P_a$ ) and that of the French-speaking doctors ( $P_b$ ). This standard error corresponds to the square root of both variances ( $P_a$  and  $P_b$ ) once added together. Finally, a *t*-Student test is applied, that yields the following results:  $(P_a - P_b) / \text{Standard Error } (P_a - P_b) = 2.474$ .

Since the absolute value of 2.474 is superior to two standard errors (1.96), it can be ascertained that the interval between the two proportions is significant at the alpha level of 0.05.

It should be noted that when two characteristics are compared (for instance, the proportion of French-speaking doctors versus the proportion of doctors who use French at work), the highest factor of adjustment for these characteristics must be used.

The tables published in this report do not contain the confidence intervals associated with the total counts. It is therefore possible, for instance, that an equal interval between the proportion or the total count of French-speaking individuals ( $P_a$ ) and the proportion or the total count of the French-speaking doctors ( $P_b$ ) in two different geographic areas, would lead in one case to a statistically significant interval, whereas in the other case, the interval would not be statistically significant.

## Glossary

<b>Knowledge of official languages</b>	ability to conduct a conversation in one or both official languages. The data obtained from this question addresses the knowledge of the official languages, not their use.
<b>Language used most often at work</b>	a language is used most often at work when it is used predominantly. More than one language can be used most often at work.
<b>Language used on a regular basis at work</b>	a language used regularly at work when it is used in addition to that used most often.
<b>Language used at least regularly at work</b>	a language used at least regularly can be used predominantly or regularly.
<b>Mother tongue</b>	refers to the first language learned at home in childhood and still understood by the person at the time of the census.
<b>Official languages</b>	English and French.
<b>First official language spoken</b>	this variable was derived within the framework of the application of the <i>Official Languages Act</i> . This derivation method is described in the regulations concerning the use of official languages for the provision of public services. It takes into account the knowledge of the two official languages, the mother tongue, and the home language.
<b>French-speaking population / Francophone</b>	population whose first official language spoken is French.
<b>English-speaking population / Anglophone</b>	population whose first official language spoken is English.