First Nations and Inuit Home and Community Care

2011 Report

Canada

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Executive Summary

Health Canada's First Nations and Inuit Home and Community Care Program (FNIHCC) provides funding to support the delivery of home and community care services to First Nations and Inuit communities across Canada. This report gives an overview of trends in the FNIHCC. Understanding trends and emerging issues will provide the program with the information it needs for evidence-based decision-making, and will also help as it works with partners to develop a 10-Year Strategy. In addition, this report fulfills the requirement articulated in the action plan responding to the recent evaluation of the program—which was published in 2009—to produce an analysis that explains variations in service delivery.

Overall, findings show that the FNIHCC delivered home and community care services to 33,994 clients across Canada in 2009-2010. Of these clients, 89% were aged 26 years and older, 72% (24,507) were 46 and older, and 57 % (19,410) were 56 and older. Although many clients are relatively young, they are already beginning to face the onset of chronic conditions such as diabetes that will undoubtedly have an impact on their later health. As these populations age, health status may continue to deteriorate, and this is likely to affect the type of care they will need. It may also put pressure on the health system itself and the FNIHCC.

Other facts and figures on service delivery are provided in this report. For example, some regional differences exist in terms of the primary reasons for receipt of home care services and these are noted. Regional differences are not entirely unusual, however, given that regions may have important demographic differences, different delivery and uptake of health promotion and prevention messages, as well as varying access and availability of care and treatment, in particular from provincial/territorial health and social services.

Additional information is provided on the delivery of home and community care in Canada.

List of Tables and Figures

List of Abbreviations

AANDC	Aboriginal Affairs and Northern Development Canada
CIHI	Canadian Institute for Health Information
e-SDRT	Electronic Service Delivery Reporting Template
e-HRTT	Electronic Human Resources Tracking Tool
FNIHCC	First Nations and Inuit Home and Community Care
HCRS	Home Care Reporting System
LPN	Licensed Practical Nurse
RAI	Resident Assessment Instrument
RN	Registered Nurse

1.0 INTRODUCTION

Health Canada's First Nations and Inuit Home and Community Care Program (FNIHCC) provides funding to support the delivery of home and community care services to First Nations and Inuit communities across Canada. This report presents information on the FNIHCC, with a focus on relevant data for evidence-based decision-making.

1.1 Background

Launched in 1999, Health Canada's FNIHCC works with First Nations and Inuit partners to provide basic home and community care services for people of all ages with chronic and acute illnesses. Care is based on assessed need and provided in the individual's home or community, allowing First Nations and Inuit to be independent and close to their loved ones. [1]

The FNIHCC includes the following essential service elements:

- A **structured client assessment process** (e.g., on-going reassessment to determine client needs, family supports and service allocation)
- A **managed care process** incorporating case management, referrals and service linkages to existing services both on and off reserve/settlement
- **Home care nursing services** that also encompass supervision and teaching of personnel
- **Home support services** such as light housekeeping, laundry and meal preparation
- **Personal care** which includes bathing, grooming and dressing
- **In-home respite care**
- **Linkages** with other professional and social services such as hospitals and physicians as well as respite and therapeutic services
- Provision of and access to specialized **medical equipment, supplies and pharmaceuticals**
- A system of **record keeping and data collection** to carry out program monitoring, ongoing planning, reporting and evaluation activities

FNIHCC's home support services do not duplicate but enhance the Assisted Living Program In-Home Services from Aboriginal Affairs and Northern Development Canada

[1] Details on the First Nations and Inuit Home and Community Care Program are available at: http://www.hc-sc.gc.ca/fniah-spnia/services/home-domicile/index-eng.php.

(AANDC).[2] AANDC's program provides housekeeping such as cleaning, laundry and carrying wood, as well as meal planning and preparation. In addition, it provides adult foster care, which includes supervision in a family-type setting, and limited lower-level facility-based long-term care.

Communities can also provide supportive service elements as long as the essential service elements are provided. Supportive service elements may include:

- Facilitation and linkages for rehabilitation and therapy services
- Institutional-based respite care
- Adult day programs
- Meal programs
- Mental health home-based services for long-term psychiatric clients and clients experiencing mental or emotional illness
- Support services to maintain independent living which may include assistance with special transportation needs, grocery shopping, accessing specialized services and interpretative services
- Home-based palliative care
- Social services directly related to continuing care issues
- Specialized health promotion, wellness and fitness

FNIHCC's data collection systems, which will be discussed in more detail in the next section, are among the few systems available within Health Canada that provide service delivery and human resource information. Designed with the FNIHCC in mind, these systems are currently used by over 600 communities south of 60 and approximately 1,800 FNIHCC personnel.

The FNIHCC program has an overall budget of $107 million (excluding other funding sources) and services are available in all parts of the country (i.e., in 98% of First Nation communities and 100% of Inuit communities).

1.2 Objective

The main objective of this report is to provide an overview of trends in the FNIHCC while also looking at home care data from the Canadian Institute for Health Information (CIHI), where relevant. Understanding trends and emerging issues will provide the Program with the information it needs for evidence-based decision-making,

[2] Details on Aboriginal Affairs and Northern Development Canada's Assisted Living Program In-Home services are available at: http://www.ainc-inac.gc.ca/eng/1100100035250.

and will also help as it works with partners to develop a 10-Year FNIHCC Strategic Plan. In addition, this report fulfills the requirement articulated in the action plan responding to the recent evaluation of the program (published in 2009) to produce a descriptive analysis that explains variations in service delivery.[3]

2.0 METHODS

While a review of some published literature on home care was done to provide context for this analysis, a detailed examination of all relevant publications was outside the scope of this report.

Home care data contained in this document come from several sources, including the FNIHCC's Electronic Service Delivery Reporting Template (e-SDRT) and Electronic Human Resource Tracking Tool (e-HRTT), as well as CIHI's Home Care Reporting System (HCRS). Of note, clients in the Yukon, Northwest Territories and Nunavut are not included in the e-SDRT or the e-HRTT, although program personnel in these regions provide reports to the FNIHCC's regional offices which in turn provide them to the national office in Ottawa. Moreover, each of these territories collects different information using different headings so data are not perfectly aligned with the rest of the program. Because of the differences in these reports, territorial data will largely not be presented, although some information will be presented on home care services provided to the Inuit in Nunavut.

A detailed examination of all data available on each region was outside the scope of this report.

[3] Details on the evaluation are available at: http://www.hc-sc.gc.ca/fniah-spnia/pubs/services/fniFNIHCC-psdmcpni/index-eng.php.

2.1 Data Sources

The e-SDRT is an Excel-based tool that allows FNIHCC personnel to provide information on a range of activities, such as:

- Hours of Service
- Number of Home Visits
- Number of Clients
- Primary Reason for Receipt of Services
- Nursing Services
- Personal Care
- Professional Therapies
- Case Management
- In-Home Respite
- Reason for Services not Provided

The e-HRTT is also an Excel-based tool that allows FNIHCC personnel to provide information on the program's human resources. This tool includes:

- Position/Role and Funding Sources
- Allocated Staff
- Professional Registration or Certification
- Summary of Highest Level of Education by Position/Role
- Average Length of Employment by Position/Role in Months
- Number of People Hired in Current Fiscal Year by Position/Role
- Number of People Currently on Temporary Leave
- Number of Resignations or Terminations by Position/Role

Both the e-SDRT and the e-HRTT are available on a secure, password-protected website where users can upload data and generate reports on a monthly, semi-annual or annual basis. A separate website is also available (http://fnihis.org/fnhis/education_links.htm) where users can access training manuals to help them with program data (such as how to protect personal information or how to enter mandatory information).

Recipients of FNIHCC funding are required to provide relevant data, either through the e-SDRT and e-HRTT applications or through reports that are submitted to the relevant regional office (as mentioned on page three).

Regarding CIHI's HCRS, it captures "standardized, client-specific, clinical, demographic, administrative, and resource utilization information within a single reporting framework."[4] HCRS data are longitudinal in nature and cover home care clients using the mainstream health system throughout the time they receive home care services. HCRS does not capture information on the FNIHCC. It uses the Resident Assessment Instrument—Home Care (RAI-HC)—which was developed by interRAI, an international consortium of health researchers, and revised for Canadian use by CIHI. The HCRS collects data on:

- Referral Source
- Wait Time
- Client Group
- Discharge Reason
- Age by Gender
- Health Conditions Informal Care
- Activities of Daily Living Hierarchy
- Cognitive Performance Scale
- Changes in Health, End-Stage Disease and Signs and Symptoms
- Depression Rating Scale
- Assessment Protocols
- Instrumental Activities of Daily Living
- Method of Assigning Priority Levels
- Pain Scale
- Pressure Ulcer Risk Scale
- Resource Utilization Groups
- ER Hospital
- Treatments and Formal Care
- Continence
- Medications
- Clinical

HCRS data are presented for context. While the HCRS system may include First Nation or Inuit clients who have received services through the provincial/territorial home care systems, data specific to these populations cannot be extracted for detailed analysis because the ethnic identifier CIHI uses is Aboriginal only and not specific to First Nations or Inuit.

[4] Details on the HCRS are available at: http://www.cihi.ca/cihi-ext-portal/internet/en/document/types+of+care/community+care/home+care/services_hcrs.

2.2 Data Limitations

As noted by the evaluation of the FNIHCC, the e-SDRT does not collect data on health outcomes or client satisfaction, nor is it a tool to measure workload. The evaluation also expressed some concern regarding the program's data quality.[3] Further to this, variation exists in the regional capacity to support communities in data collection activities. For example, in some places FNIHCC staff turnover remains an issue. As a result, communities are not always able to undertake all data collection activities, affecting the quality of the information available on service delivery and human resources.

The e-SDRT includes data going back several years, whereas the e-HRTT currently includes data for one year as it is a new data collection system. Prior to the advent of the e-HRTT, the FNIHCC manually collected human resources information. Both of these systems refer largely to services delivered to First Nations populations. The e-SDRT, however, may include a very small number of Inuit who reside in northern Quebec.

The e-SDRT has undergone some changes since its inception and the application has gone through several versions (it is now at version 5.1). While data quality has improved over time, there still remains room for improvement. Indeed, efforts are underway to address quality through the implementation of a data quality working group (i.e., the e-SDRT and e-HRTT Working Group) that will provide guidance on future up-dates to the e-SDRT and e-HRTT systems.

Regarding the HCRS, it does not include home care data on every Canadian region. It currently includes the following provinces and territories: British Columbia (administrative data only, no assessment data), Manitoba (Winnipeg Regional Health Authority only), Ontario, Nova Scotia and the Yukon.

FNIHCC and HCRS data are not directly comparable to each other due to different methods of data collection and different indicators. Therefore, because of limitations on data quality and availability, this report does not profess to make definitive statements about what FNIHCC data suggest, nor does it test for statistically significant differences.

3.0 FINDINGS

3.1 Expenditures

FNIHCC funding is shown in *Table 1*. In 1999, at the program's inception, $90 million dollars per year was allocated for the FNIHCC. Funding has increased over time to include additional allocations for nursing salary resources and annual operating increases. In 2010-2011, the program received $107.1 million. It also occasionally receives funding from other sources to supplement its existing work (although these sources are not included in the table below). For example, between 2009 and 2011, it received approximately $612 thousand from the time-limited Nursing Innovation Strategy to undertake activities to enhance collaboration (e.g., within the community; with other health providers) and to enhance the wound-care knowledge and skills of FNIHCC nurses. In 2010-2011, it also received a little more than $4.4 million per year for five years from the Aboriginal Diabetes Initiative to provide nursing training. In 2010, the FNIHCC's budget represented about 4.8% of Health Canada's allocation for First Nations and Inuit health (which was $2.199 billion).[5]

TABLE 1. HOME AND COMMUNITY CARE FUNDING
First Nations and Inuit Home and Community Care Program, Canada, 2006-2010

1999	2004-2005*	2005-2006, 2006-2007*	2007-2008 #	2008-2009#	2009-2010#	2010-2011#
$90M	$93.1M	$94.5M per year	$97.1M	$100.7M	$104M	$107.1M

Source: Health Canada. First Nations and Inuit Home and Community Care Program, 2011.
Notes: * Includes allocation for additional nursing salary resource. # Includes 3% increase from the First Nations and Inuit Health Branch. These figures do not include funding from other sources.

It is important to look at FNIHCC's funding in the larger context of Canada's health system. Indeed, the Canadian Institute for Health Information (CIHI) reported that health system costs were forecast to reach $191.6 billion in 2010.[6] The bulk of these expenditures are for hospitals, followed by pharmaceuticals, then physicians, each of which have experienced growth over the years. In 2010, total health expenditures in Canada represented 11.7% of gross domestic product (GDP), whereas they were at 11.9% in 2009 and 10.7% in 2008.

[5] Details on Health Canada budgets are available at: http://www.tbs-sct.gc.ca/rpp/2010-2011/inst/shc/shc02-eng.asp#a241.
[6] Details on health expenditures and trends are available at: https://secure.cihi.ca/estore/productFamily.htm?locale=en&pf=PFC1556&lang=en&media=0.

Given these expenditures, governments have been concerned about containing costs. Research suggests that reducing the need for hospital-based care through the provision of appropriate home and community care may have a positive effect on health outcomes and may also be cost-effective. For example, one study of costs and outcomes in home and residential long-term care services found that community care was significantly less costly than residential care. The authors noted that differences in out-of-pocket expenses and family caregiver time, or in the policies regions have regarding delivery and funding of care, play a role in overall costs. Study authors also noted that their findings into the cost-effectiveness of home care compared to acute care were mixed. [7]

In contrast, in a literature review on economic evaluations of nursing practices, which also included home care, the authors concluded that the few economic evaluations that have been done have only addressed a limited number of issues (they seldom look at health economics, for example, and rarely provide specifics about the economic method used to evaluate cost-effectiveness). This stems from a difficulty to reach consensus on outcome measures, in particular ones that are standardized.[8] Costs certainly depend on the level of care individuals require. Indeed, those who require 24/7 care (i.e., palliative home care) may be just as costly as or more costly than those receiving institutional care.

According to CIHI, almost 44% of provincial/territorial government health expenditures in 2008 were attributed to Canadians aged 65 and older. Females over 65 accounted for more than 25% of total provincial/territorial health expenditures in 2008, while males accounted for about 19%.[6] However, CIHI has observed that the share of spending on seniors has not changed significantly over the past decade.[9]

For an informed discussion of costs and home care, consult the Senate Report *Canada's Aging Population: Seizing the Opportunity,*[10] or the document *Home Care in Canada: From*

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[7] Hollander, M. et al. (2002) Study of the costs and outcomes of home care and residential long-term care services. Available at: http://www.homecarestudy.com/.

[8] Lämås, K. et al. (2009). Economic evaluation of nursing practices: a review of literature. *International Nursing Review.* 56(1): pp. 13-20. Available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1466-7657.2008.00672.x/full.

[9] CIHI. (2010). Health care spending to reach $192 billion this year. Available from: http://www.cihi.ca/CIHI-ext-portal/internet/en/Document/spending+and+health+workforce/spending/RELEASE_28OCT10.

[10] The Special Senate Committee on Aging. (2009). Canada's Aging Population: Seizing the Opportunity. www.parl.gc.ca/40/2/parlbus/commbus/senate/com-e/agei-e/rep-e/AgingFinalReport-e.pdf.

the Margins to the Mainstream published by the Canadian Healthcare Association.[11] In addition, the Canadian Health Services Research Foundation conducted a series of roundtables across Canada with policy-makers, healthcare executives and professionals, researchers and citizens to undertake the following: bring clarity to the impact of population aging on the financial sustainability of medicare; raise the profile of the most pressing policy- and decision-making challenges; identify research gaps; and offer ideas and strategies for delivering high-quality care to older adults. The synthesis report on these roundtables is available at http://www.chsrf.ca/Libraries/Aging_roundtable_reports/0604-AGING_RNDTBLE-SNTHSS_FinalWEB.sflb.ashx.

3.2 First Nations and Inuit Health Status

First Nations experience many health issues at higher rates than the rest of the Canadian population.[12] For example, according to the First Nations Regional Health Survey (RHS), which collects self-reported information on various health issues, 20.7%, 21.8% and 20.7% of First Nations adults reported in 2008/2010 having diabetes, high blood pressure and arthritis/rheumatism, respectively. In 2002-2003, the rates were 19.7%, 20% and 25%.[13] In contrast, in 2008 self-reported rates for the overall Canadian population were 5%, 14% and 13.9% for diabetes, high blood pressure and arthritis, respectively.[14]

The most recent RHS also explored the need for home care assistance. As *Table 2* on the next page shows, the need for this type of assistance is more pronounced among First Nation seniors. For example, 34.7%, 32.6%, 7% and 12.5%, of First Nation seniors aged 55 and older reported, respectively, the need for home maintenance, light housekeeping, personal care, and having their meals prepared or delivered. It appears that many require nursing care, although high sampling variability limits our understanding of the extent of this particular issue.

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[11] Canadian Healthcare Association. Home Care in Canada: From the Margins to the Mainstream. Available from: http://www.cha.ca/documents/Home_Care_in_Canada_From_the_Margins_to_the_Mainstream_web.pdf.

[12] Details on First Nations and Inuit health are available at: http://www.hc-sc.gc.ca/fniah-spnia/pubs/aborig-autoch/2009-stats-profil/index-eng.php#high-sail.

[13] Details on the First Nations Regional Health Survey (RHS) are available at: http://www.fnigc.ca/node/6. Other than data on diabetes, it is not clear whether RHS data are age-standardized. Thus, comparisons with data on the overall Canadian population should be done with caution.

[14] For a detailed picture of the health status of Canadians, visit the following website: http://www12.statcan.gc.ca/health-sante/82-213/index.cfm?Lang=ENG&sid=a&lid=1.

TABLE 2. PERCENTAGE OF FIRST NATION ADULTS NEEDING HOME CARE SERVICES Selected details by age group, Canada, 2008-2010				
TYPE OF ASSISTANCE NEEDED	**18-24 (%)**	**25-39 (%)**	**40-54 (%)**	**55+ (%)**
Home Maintenance	6.5E	8.4	11.2	34.7
Light Housekeeping	3.1E	5.2	8.4	32.6
Care From a Nurse	1.4E	1.0E	2.2E	15.5E
Personal Care	1.5E	0.9E	1.4E	7.0
Meals Prepared or Delivered	1.8	1.6E	1.8E	12.5

Source: First Nations Information Governance Centre. RHS Phase 2 (2008/10) Preliminary Results, 2011.
Notes: Based on First Nation adults reporting the need for home care assistance. E denotes high sampling variability; use with caution.

The Inuit also face a number of health issues. According to Statistics Canada's Aboriginal Peoples Survey, which also collects self-reported information, 13% and 12% of Inuit reported having arthritis/rheumatism and high blood pressure, respectively. These percentages are similar to those in the overall Canadian population after age standardizing. In addition, approximately 50% of Inuit adults reported that their health was excellent or very good in 2006.[15] In contrast, about 61% of the overall Canadian population reported being in excellent or very good health in 2007 (62% in 2009).[14]

Meanwhile, Inuit life expectancy is markedly lower than that of the overall Canadian population. Researchers have estimated that, from 1999 to 2002, life expectancy at birth in Inuit-inhabited areas was 66.9 years.[16] Age-standardized life expectancy at birth for the total Canadian population was 80.7 years in 2007.[14]

In a study of continuing care needs of First Nations and Inuit, the authors identified many of the health and social issues facing these two populations, as well as the difficulties acquiring data when the ethnic identifiers are often not in the datasets to help construct a reasonable portrait of what is truly occurring.[17]

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[15] Information on the Aboriginal Peoples Survey is available at the following website: http://www.statcan.gc.ca/daily-quotidien/081203/dq081203b-eng.htm.

[16] Wilkins R, Uppal S, Finès P, Senécal S, Guimond E, Dion R. Life expectancy in the Inuit-inhabited areas of Canada, 1989 to 2003. Health Reports. 2008;19(1):1-13. Catalogue No. 82-003-X. Available from: http://www.statcan.ca/english/freepub/82-003-XIE/2008001/article/10463-en.pdf.

[17] Health Canada. (2008). An Assessment of Continuing Care Requirements in First Nations and Inuit Communities. Available from: http://www.hc-sc.gc.ca/fniah-spnia/pubs/services/_home-domicile/2008_assess-lit-exam-doc/index-eng.php#_0.

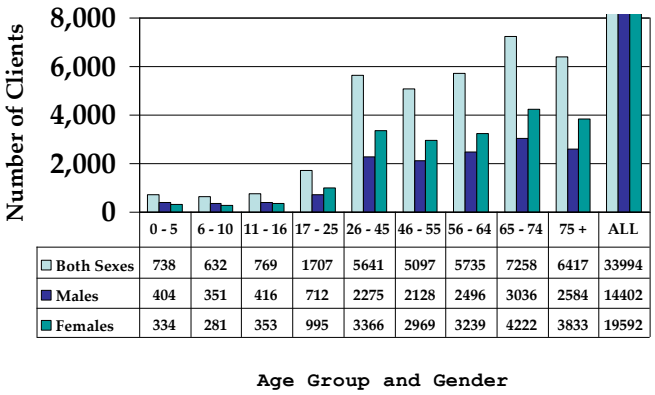
For more information on First Nations and Inuit health, consult Health Canada's website at: http://www.hc-sc.gc.ca/fniah-spnia/index-eng.php.

3.3 First Nations and Inuit Home Care Service Delivery Data

In 2009-2010, 33,994 clients received home and community care services. Referring to *Figure 1*, which shows the breakdown of clients according to age and gender, and *Figure 2* on the following page, which shows percentages by age group, we see that roughly 89% of all clients (30,148) were aged 26 years and older, 72% (24,507) were 46 and older, and 57 % (19,410) were 56 and older.

FIGURE 1 TOTAL NUMBER OF CLIENTS

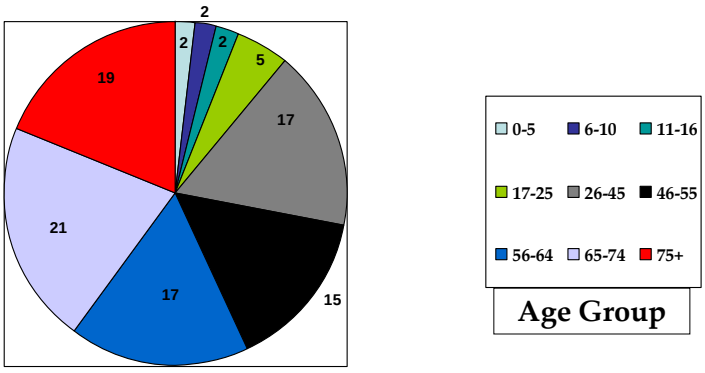
Total number of clients, by age group and gender, First Nations and Inuit Home and Community Care Program, Canada, 2010



	0 - 5	6 - 10	11 - 16	17 - 25	26 - 45	46 - 55	56 - 64	65 - 74	75 +	ALL
Both Sexes	738	632	769	1707	5641	5097	5735	7258	6417	33994
Males	404	351	416	712	2275	2128	2496	3036	2584	14402
Females	334	281	353	995	3366	2969	3239	4222	3833	19592

Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Note: Data may not be completely current.

FIGURE 2 PERCENTAGE OF CLIENTS
Percentage of clients, by age group, First Nations and Inuit Home and Community Care Program, Canada, 2010

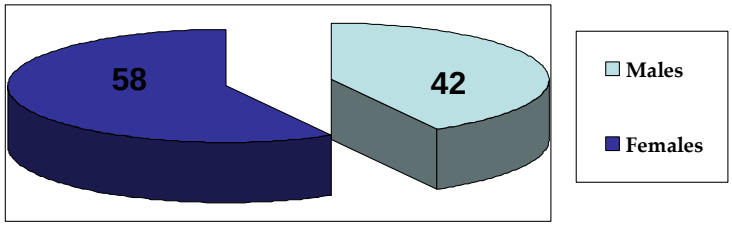


Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Note: Data may not be completely current. Figures have been rounded.

It is not surprising that the majority of FNIHCC's clients are over the age of 55. However, only 40% of clients are aged 65 and older. While FNIHCC clients can be relatively young compared to provincial/territorial home care clients, a younger clientele might suggest that we are seeing the results of an early onset of chronic conditions such as diabetes among First Nations.

Figure 3 on the next page shows the percentage of clients by gender who received home care services in 2010. At 58%, females represent the preponderance of clients receiving services.

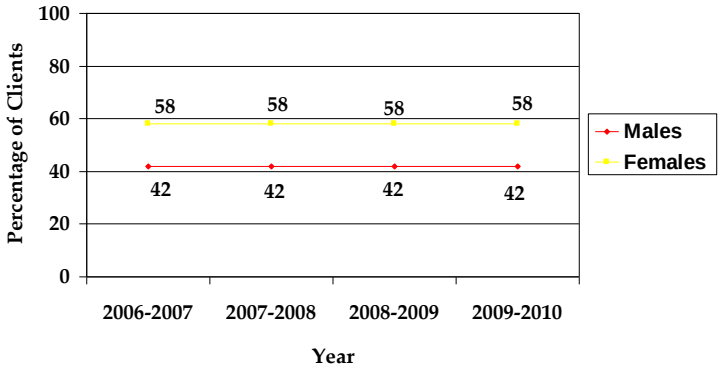
FIGURE 3 PERCENTAGE OF CLIENTS
Percentage of clients, by gender, First Nations and Inuit Home and Community Care Program, Canada, 2010



Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Note: Data may not be completely current.

Figure 4 shows that the percentage of males and females who received home care services did not change at all from 2006-2007 to 2009-2010. However, this may be related to data quality and not a true portrait of trends in the receipt of services according to gender.

FIGURE 4 PERCENTAGE OF CLIENTS
Percentage of clients, by gender, First Nations and Inuit Home and Community Care Program, Canada, 2006-2010



Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Note: Data may not be completely current.

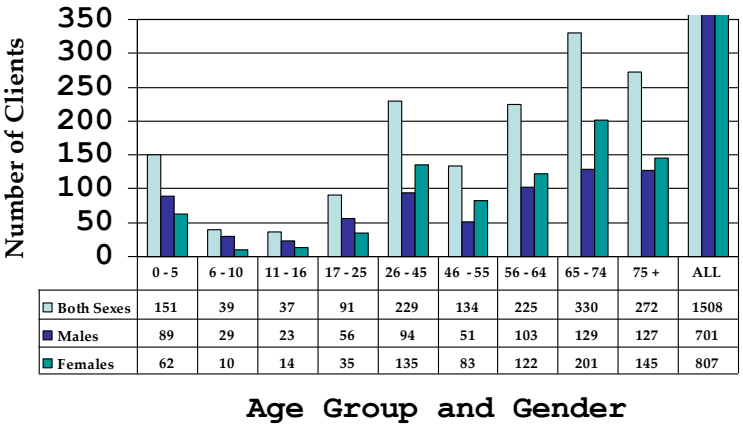
Some data are available that include the Inuit, notably those living in Nunavut. Although ethnicity is not known for the dataset used in the following three figures, it is

worth noting that 85% of Nunavut's population reported identifying as Aboriginal in the 2006 Census.[18] It is safe to assume that most of the individuals in the homecare dataset are likely to be Inuit as well, although non-Inuit are certainly included.

Figures 5 and *6* (on the next page) display the number of FNIHCC homecare clients in Nunavut according to age group and gender. Of the 1,508 people reported to have received services, 53% were over the age of 55, which is slightly lower than the 57% observed in the First Nations population. Considering individuals aged 65 and older, 40% received services, which is similar to the percentage in the First Nations population.

FIGURE 5 TOTAL NUMBER OF CLIENTS

Total number of clients, by age group and gender, Nunavut, 2010



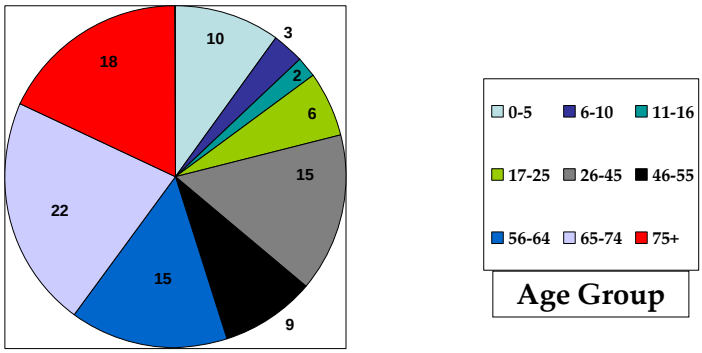
	0 - 5	6 - 10	11 - 16	17 - 25	26 - 45	46 - 55	56 - 64	65 - 74	75 +	ALL
Both Sexes	151	39	37	91	229	134	225	330	272	1508
Males	89	29	23	56	94	51	103	129	127	701
Females	62	10	14	35	135	83	122	201	145	807

Source: Health Canada. 2010.
Notes: Data may not be completely current. Data represent clients in Nunavut which is predominantly, though not exclusively, Inuit. Non-Inuit may therefore be included in the dataset.

Perhaps significantly, children aged 0 to 5 were more likely to receive services in Nunavut relative to those from First Nations communities (10% versus 2%). This may be due to a policy decision in Nunavut where FNIHCC nurses are doing post-partum home visits as part of the repertoire of services they provide to clients.

[18] For details on the 2006 Census, see: http://www12.statcan.ca/english/Profil01/CP01/Details/Page.cfm?Lang=E&Geo1=PR&Code1=62&Geo2=PR&Code2=01&Data=Count&SearchText=Nunavut&SearchType=Begins&SearchPR=01&B1=All&GeoLevel=&GeoCode=62.

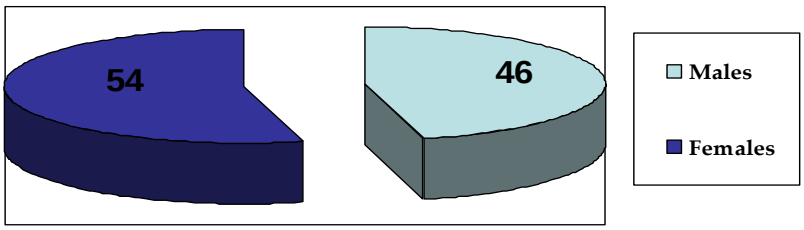
FIGURE 6 PERCENTAGE OF CLIENTS
Percentage of clients, by age group, Nunavut, 2010



Source: Health Canada. 2010.
Notes: Data may not be completely current. Data represent clients in Nunavut which is predominantly, though not exclusively, Inuit. Non-Inuit may therefore be included in the dataset.

As *Figure 7* shows, females are more likely to receive services in Nunavut than males (54% versus 46%). This differs somewhat from the gender breakdown among First Nations clients.

FIGURE 7 PERCENTAGE OF CLIENTS
Percentage of clients, by gender, Nunavut, 2010



Source: Health Canada. 2010.
Notes: Data may not be completely current. Data represent clients in Nunavut which is predominantly, though not exclusively, Inuit. Non-Inuit may therefore be included in the dataset.

Table 3 on the next page shows available HCRS data for Ontario and the Yukon, where home care clients are largely 65 and over (82% for Ontario and 84% the Yukon). They are also predominately female (similar to FNIHCC's clientele). There is little reason to

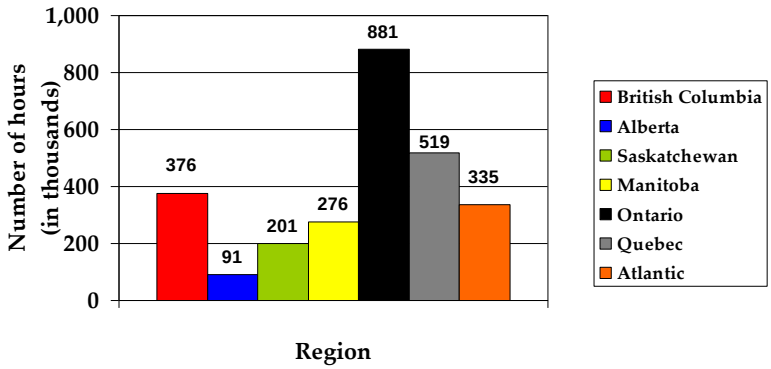
believe that these characteristics would differ significantly across Canada, although there are perhaps variations in some communities where the demographic is slightly different.

TABLE 3. SELECTED DETAILS ON ASSESSED HOME CARE CLIENTS, Selected details, Ontario and Yukon, 2009-2010		
CONDITIONS	**ONTARIO**	**YUKON**
Number of Clients	152,127	170
Average Age	77	75
65 and older (%)	82	84
Female (%)	66	60
Male (%)	34	40

Source: Canadian Institute for Health Information. Home Care Reporting System, 2009-2010.
Notes: Based on clients who were assessed using the RAI-HC. Data are from community assessments. Additional data are available on hospital-based assessments.

Figure 8 shows the total hours of service provided to FNIHCC clients in the regions and *Figure 9* on the next page shows the percentages of hours of service by region. Ontario accounts for the bulk of the hours of service (881,207 or 33%), followed by Québec (519,416 or 20%), British Columbia (375,952 or 14%), the Atlantic (335,407), Manitoba (276,000 or 10%), and Saskatchewan (201,000 or 8%).

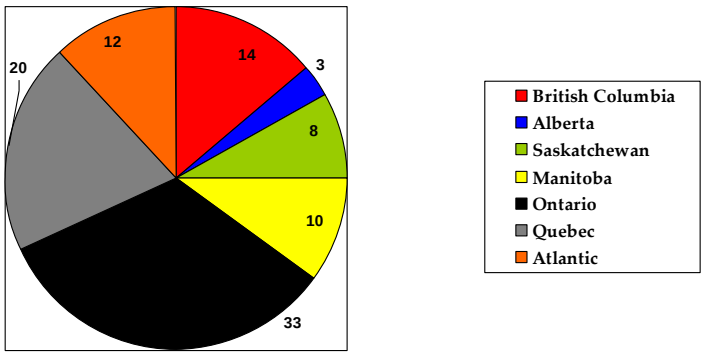
FIGURE 8 TOTAL HOURS OF SERVICE PROVIDED
Total hours of service provided, by region, First Nations and Inuit Home and Community Care Program, Canada, 2010



Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Note: Data may not be completely current. Numbers have been rounded.

FIGURE 9 PERCENTAGE OF HOURS OF SERVICE

Percentage of hours of service, by region, First Nations and Inuit Home and Community Care Program, Canada, 2010

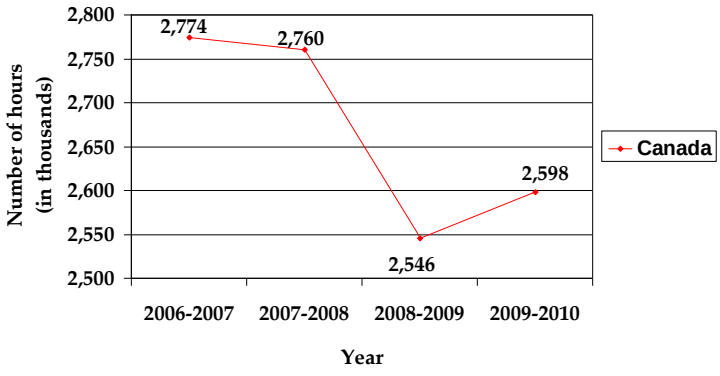


Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Note: Data may not be completely current.

Figure 10 shows the trends in total hours of service provided to FNIHCC clients from 2006-2007 to 2009-2010. In 2006-2007, 2.77 million hours of service were provided, followed by 2.76 million hours in 2007-2008. While total hours of service have been relatively consistent over the period covered in the above figure, there was a slight drop in 2008-2009 to 2.54 million hours. Service picked up slightly in 2009-2010 to 2.598 million hours.

FIGURE 10 TOTAL HOURS OF SERVICE PROVIDED

Total hours of service provided, First Nations and Inuit Home and Community Care Program, Canada, 2006-2010



Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Note: Data may not be completely current.

FNIHCC hours of service may include a portion of the delivery of AANDC's Adult Care Program In-Home Services (e.g., Home Support or Assisted Living) if both the home care and adult care programs have been integrated at the community level.

Changes in hours of service may also be due to data quality, random fluctuations or issues having an impact on program delivery such as transportation, weather, the availability of health human resources (HHR), or extenuating circumstances that pull staff away from home care work (e.g., floods in Manitoba; fires in Alberta). An examination of HHR data will be done in the next section.

As *Table 4* shows, diabetes, at 20%, is the primary reason for receipt of home care services among First Nations in Canada. This is followed by musculoskeletal conditions, at 14%, and cardiovascular disease, at 10%. Reasons for receipt of home care services will vary according to the region and will depend on issues such as demography and age, as well as the uptake of health promotion and prevention messages and access and availability of care and treatment. For example, in Ontario, musculoskeletal conditions, at 20%, are the primary reason for receipt of services, followed by diabetes, at 17%, and cardiovascular disease, at 10%. Of note, FNIHCC's existing data collection system can only show the primary reason for receipt of services. Clients may have more than one condition.

TABLE 4. TOP THREE PRIMARY REASONS FOR RECEIPT OF HOME CARE SERVICES
First Nations and Inuit Home and Community Care Program, 2010

CONDITIONS	CANADA	ONTARIO
Diabetes	20%	17%
Musculoskeletal conditions such as arthritis or fracture	14%	20%
Cardiovascular disease	10%	10%

Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Note: Data may not be completely current.

Table 5 on the next page displays CIHI's HCRS data, indicating that heart and circulation diseases represent the largest proportion of health conditions among assessed home care clients in Ontario and the Yukon at 72% and 68%, respectively. This is followed by musculoskeletal conditions at 62% and 61%, and other diseases at 58% and 59%, in Ontario and Yukon, respectively. Diabetes is found in 26% and 28% of assessed home care clients in Ontario and the Yukon, respectively.

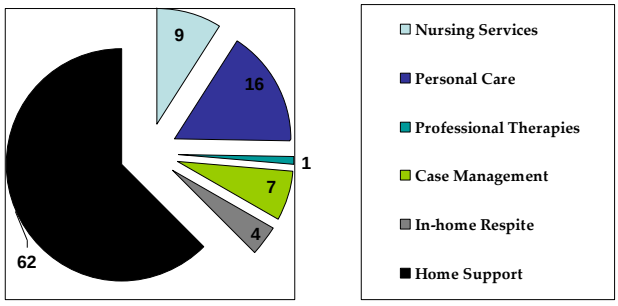
TABLE 5. HEALTH CONDITIONS OF ASSESSED HOME CARE CLIENTS Health conditions, Ontario and Yukon, 2010		
CONDITIONS	**ONTARIO**	**YUKON**
Heart/Circulation Diseases	72%	68%
Musculoskeletal Diseases	62%	61%
Diabetes	26%	28%
Neurological Diseases	26%	25%
Sense Diseases	29%	24%
Psychiatric/Mood Diseases	14%	9%
Infections	6%	8%

Source: Canadian Institute for Health Information. Home Care Reporting System, 2009-2010.
Notes: Based on clients who were assessed using the RAI-HC. Percentages will not add to 100% as many clients had multiple health conditions recorded. Data are from community assessments. Additional data for Ontario are available on hospital-based assessments.

Figure 11 shows that the majority of FNIHCC clients received services for Home Support. Personal Care follows at 16%, Nursing Services at 9%, Case Management at 7%, In-Home Respite at 4%, and Professional Therapies at 1%. The distribution is affected by a portion of AANDC's Assisted Living Program In-Home Services included in the dataset, thus increasing the proportion of Home Support services.

FIGURE 11 PERCENTAGE OF CLIENTS RECEIVING SERVICE

Percentage of clients receiving service, by type of care, First Nations and Inuit Home and Community Care Program, Canada, 2010



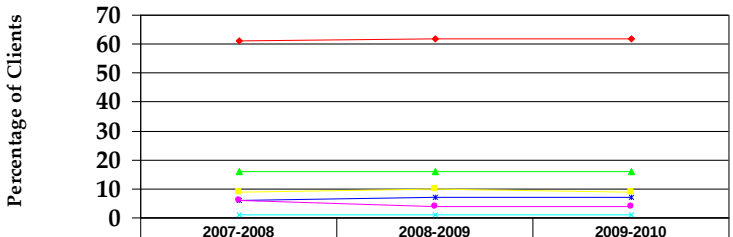
Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Notes: Data may not total 100% due to rounding. Data may not be completely current.

Figure 12 on the next page shows the trends in receipt of care from 2007-2008 to 2009-2010. Overall, the distribution of the type of care has not changed significantly during the period in question. Home support has ranged from 61% to 62%; Personal Care and Professional Therapies (the latter is a supportive service that is not funded) have been stable at 16% and 1%, respectively; Nursing Services have varied between 9% and 10%;

and Case Management has varied between 6% and 7%. Finally, In-Home Respite decreased from 6% to 4%. This decrease could be related to data quality or service rationalization. For example, some communities are cutting back on respite care to meet demands related to acute and chronic care.

FIGURE 12 PERCENTAGE OF CLIENTS RECEIVING SERVICE

Percentage of clients receiving service, by type of care, First Nations and Inuit Home and Community Care Program, Canada, 2007-2010



	2007-2008	2008-2009	2009-2010
Home Support	61	62	62
Nursing Services	9	10	9
Personal Care	16	16	16
Professional Therapies	1	1	1
Case Management	6	7	7
In-Home Respite	6	4	4

Year

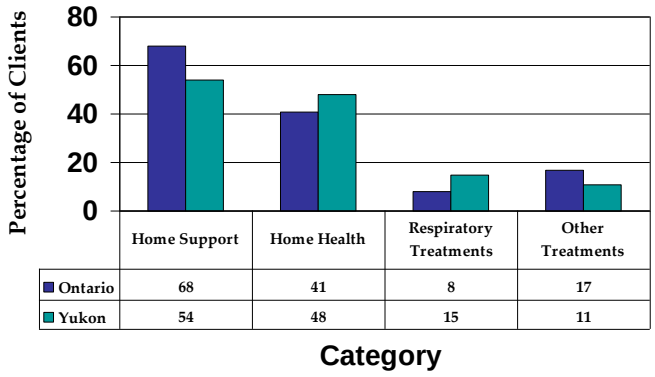
Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Notes: Data may not total 100% due to rounding. Data may not be completely current.

Figure 13 on the following page shows HCRS data on treatments and formal care provided to clients in Ontario and the Yukon. These two categories include Home Support, Home Health, Respiratory Treatments and Other Treatments. Home Support data include home health aides, homemaking services, meals and volunteer services. Home Health includes visiting nurses, physical therapy, occupational therapy, speech therapy, day care or day hospital and social worker visits in the home. Respiratory Treatments include oxygen, respirator for assistive breathing, and other respiratory treatments. Other Treatments include an alcohol and drug treatment program, blood transfusions, chemotherapy, dialysis, intravenous infusions, medication by injection, ostomy care, radiation and tracheostomy care.

In Ontario, 68% of clients received Home Support; 41% received Home Health; 8% received Respiratory Treatments; and 17% received Other Treatments. In the Yukon, the numbers are 54%, 48%, 15% and 11%.

FIGURE 13 PERCENTAGE OF CLIENTS RECEIVING SELECTED TREATMENTS AND FORMAL CARE

Percentage of clients, selected regions, Ontario and Yukon, 2010



Source: Canadian Institute for Health Information. Home Care Reporting System, 2009-2010.
Notes: Based on clients who were assessed using the RAI-HC. Percentages will not add to 100% as many clients had multiple health conditions recorded.

Figures 14 and *15* on the next two pages show the percentages of FNIHCC clients receiving service by client type. Client types include:

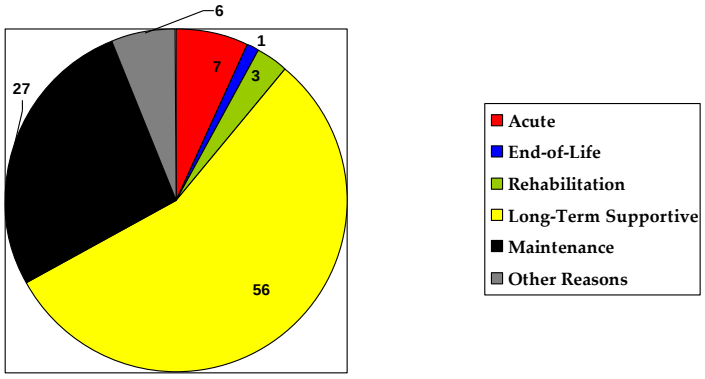
- **Acute Care**, which refers to acute health or post-surgical conditions with a clearly identified and predictable outcome or expected recovery;
- **End-of-Life Care**, where a health condition is not responsive to curative treatment and clients (and/or their families) have been informed by a physician that they are expected to live less than six months;
- **Rehabilitation**, where clients with temporary or permanent impairments, activity limitations and/or participation restrictions have the potential for significant improvement in their functional status and/or participation;
- **Long-Term Supportive Care**, where clients who have ongoing multiple and/or complex health conditions may be unstable, medically fragile or considered by their case manager/care coordinator to be at risk for institutionalization;
- **Maintenance Care,** where clients have a stable chronic health condition or functional limitation requiring an increase of personal resources for assistance with personal care, of activities of daily living and/or of instrumental activities of daily living; and
- **Other Home Care Services,** which relates to types of care that are not found in this list.

In 2010, the majority of clients (56%) received Long-Term Supportive Care, followed by Maintenance Care (27%), Acute Care (7%), Other Reasons (6%), Rehabilitation (3%), and

End-of-Life care (1%). Considering trend data from 2007-2008 to 2009-2010, the percentage of clients receiving Acute Care has apparently increased from 5% to 7% while the percentage of those receiving End-of-Life care seems to have decreased from 3% to 1%. The percentage of clients receiving Rehabilitation, or care for other reasons, has remained stable over the period in question. Meanwhile, the percentage of clients receiving Long-Term Supportive Care has decreased from 61% to 56%, and the percentage of those who received Maintenance Care has increased from 23% to 27%.

FIGURE 14 PERCENTAGE OF CLIENTS RECEIVING SERVICE

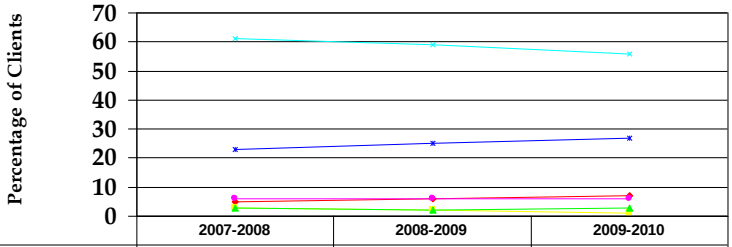
Percentage of clients receiving service, by client type, First Nations and Inuit Home and Community Care Program, Canada, 2010



Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Notes: Data may not be completely current.

FIGURE 15 PERCENTAGE OF CLIENTS RECEIVING SERVICE

Percentage of clients receiving service, by client type, First Nations and Inuit Home and Community Care Program, Canada, 2007-2010



	2007-2008	2008-2009	2009-2010
Acute	5	6	7
End-of-Life	3	2	1
Rehabilitation	3	2	3
Long-Term Supportive	61	59	56
Maintenance	23	25	27
Other Reasons	6	6	6

Year

Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Notes: Data may not total 100% due to rounding. Data may not be completely current.

3.3.1 Home Care Services and Population Size

In the previously mentioned study of continuing care and First Nations and Inuit, the authors pointed out that both populations are growing.[17] Indeed, the First Nations population grew by 15.2% and the Inuit population grew by 12.1% between 1996 and 2001. In both cases, the largest increase has been in the 65 and older age group, although this could be because this group represents a smaller number of people so the increase seems larger. Furthermore, AANDC and Canada Mortgage and Housing Corporation (CMHC) estimated that registered First Nations could increase by 40% to approximately 1,069,600 in 2029 (from 764,300 in 2001 based on Indian Register counts adjusted for late reporting and under-reporting of births and deaths).[19] AANDC/CMHC projections suggest that substantial growth will occur in the proportion of the population aged 45 or more (from 21% in 2004 to 32% in 2029).

Regarding Inuit, AANDC has also published projections of their population growth. Indeed, the Inuit population was estimated to be about 46,200 in 2001 and is expected to

[19] Indian and Northern Affairs Canada and Canada Mortgage and Housing Corporation. (2007). Registered Indian Demography - Population, Household and Family Projections, 2004-2029. Available from: http://www.ainc-inac.gc.ca/ai/rs/pubs/re/rgd/rgd-eng.asp.

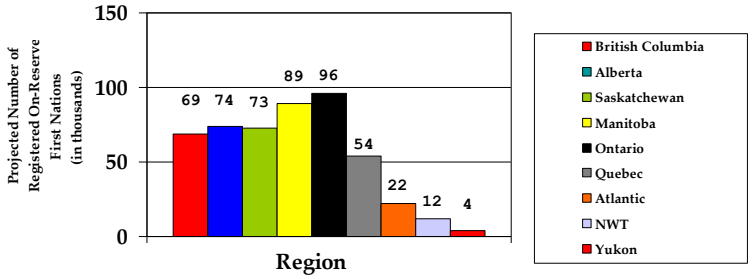
grow to about 74,800 by 2026 (an increase of 62%).[20] The Inuit are expected to age somewhat, although they will still remain youthful relative to First Nations and the overall Canadian population with a projected median age of 25.3 years in 2026.

Increases in population will certainly have an impact on the design and delivery of health and social services, especially given projected increases in aging. It may be too soon to say how this all will play out, however. Because the share of spending and services on Canadian seniors has not changed significantly over the past decade, it might be reasonable to assume that we will need to be prepared to address the issues that will arise in the near future.

Figure 16 shows the projected population of registered on-reserve First Nations by region in Canada based on the 2006 Census (the Census does not enumerate all First Nation communities in Canada and these projections, therefore, may represent an underestimate of future population sizes). *Figure 17* on the next page shows the percentages of projected registered on-reserve First Nations by region. In 2010, Ontario leads the country with 96,000 (or 20%) projected on-reserve First Nations, followed by Manitoba with 89,000 (19%), Alberta with 74,000 (16%), Saskatchewan with 73,000 (15%), British Columbia with 69,000 (14%), Québec with 54,000 (11%) and the Atlantic with 22,000 (5%).

FIGURE 16 PROJECTED NUMBER OF REGISTERED ON-RESERVE FIRST NATIONS

Projected Number of Registered On-Reserve First Nations, by region, Canada, 2010



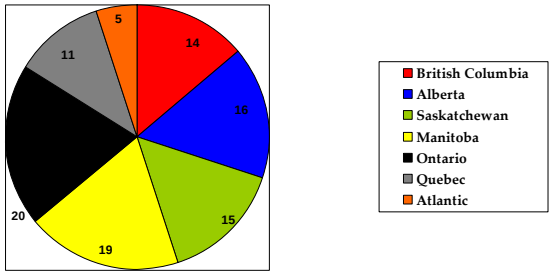
Source: Indian and Northern Affairs Canada. Registered Indian Population, Household and Family Projections, 2007.

Notes: Projections have been rounded and are based on the medium growth scenario. The baseline population for the projections is that of December 31, 2004, from the Indian Register, adjusted for the late and under-reporting of births and deaths. Includes Registered First Nations as defined by the Indian Act and does not included non-registered First Nations living on-reserve.

[20] Indian and Northern Affairs Canada. (2007). Aboriginal Demography – Population, Household and Family Projections, 2004-2029. Available from: http://www.ainc-inac.gc.ca/ai/rs/pubs/sts/ad/ad-eng.asp.

FIGURE 17 PROJECTED PERCENTAGE OF REGISTERED ON-RESERVE FIRST NATIONS

Projected Percentage of Registered On-Reserve First Nations, by region, Canada, 2010



Source: Indian and Northern Affairs Canada. Registered Indian Population, Household and Family Projections, 2007.
Notes: Projections are based on the medium growth scenario. The baseline population for the projections is that of December 31, 2004, from the Indian Register, adjusted for the late and under-reporting of births and deaths. Includes Registered First Nations as defined by the Indian Act and does not included non-registered First Nations living on-reserve.

As shown in the previous figures, Ontario has the preponderance of on-reserve First Nations and provides the bulk of FNIHCC services (as measured through hours of service). While this is understandable, there are some notable differences in terms of population size and hours of service. *Table 6* below refers to data from the previous figures. It shows that Québec follows Ontario in terms of total hours of service, although Manitoba is the region with the second-highest on-reserve population size.

TABLE 6. RANK ACCORDING TO HOURS OF FNIHCC SERVICES AND POPULATION SIZE
First Nations and Inuit Home and Community Care Program, 2010

REGION	HOURS OF FNIHCC SERVICES	POPULATION SIZE
Ontario	1	1
Québec	2	6
British Columbia	3	5
Atlantic	4	7
Manitoba	5	2
Saskatchewan	6	4
Alberta	7	3

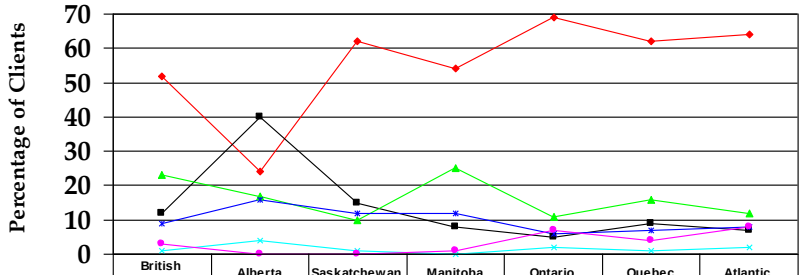
Sources: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Indian and Northern Affairs Canada, *Registered Indian Population, Household and Family Projections*, 2007.
Notes: Ranking is based on information that may not be wholly accurate. Rank starts from highest to lowest (one to seven). For example, rank one for hours of service means that this region (i.e., Ontario) provided the most hours of service in the country.

Are these differences real or are they due to the inclusion of AANDC's Home Support program in FNIHCC's dataset, or to the variation in the services provided by the provinces to First Nations living on-reserve, or to variations in data entry? While we cannot know for certain, understanding the distribution of Home Support services across the country may help explain why the total hours of FNIHCC services are not aligned with population size.

Figure 18 shows the percentage of clients receiving service by type of service, by region. Perhaps the most striking thing about this figure is how Home Support consistently accounts for the bulk of services across most regions, ranging from a little more than 50% to just below 70%. The exception is Alberta, where nursing services account for the bulk of services.

FIGURE 18 PERCENTAGE OF CLIENTS RECEIVING SERVICE

Percentage of clients receiving service, by type of service and region, First Nations and Inuit Home and Community Care Program, 2010



	British Columbia	Alberta	Saskatchewan	Manitoba	Ontario	Quebec	Atlantic
Home Support	52	24	62	54	69	62	64
Nursing Services	12	40	15	8	5	9	7
Personal Care	23	17	10	25	11	16	12
Professional Therapies	1	4	1	0	2	1	2
Case Management	9	16	12	12	6	7	8
In-Home Respite	3	0	0	1	7	4	8

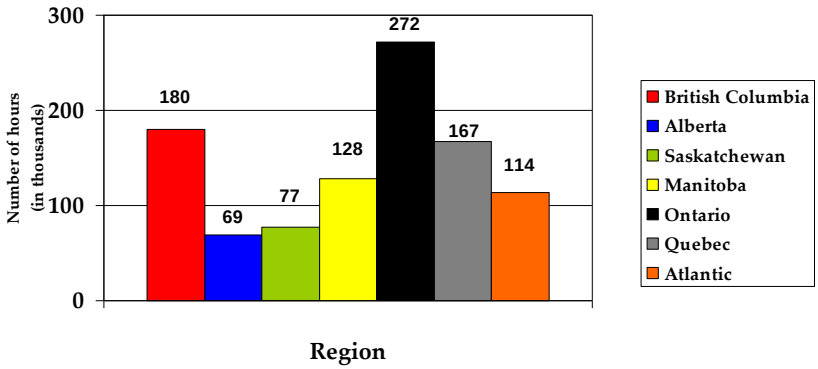
Region

Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Notes: Data may not total 100% due to rounding. Data may not be completely current.

Figure 19 on the following page shows the total hours of service without home support. Ontario still accounts for most hours of service at about 272,000 hours, followed by British Columbia at 180,000 hours, Québec at 167,000 hours, Manitoba at 128,000 hours, the Atlantic at 114,000, Saskatchewan at 77,000 hours and Alberta at 69,000 hours.

FIGURE 19 TOTAL HOURS OF SERVICE PROVIDED WITHOUT HOME SUPPORT

Total hours of service without home support, by region, First Nations and Inuit Home and Community Care Program, Canada, 2010



Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Note: Data may not be completely current.

Table 7 shows the rank of hours of FNIHCC services by region with the addition of a column that removes Home Support from the equation. As we can see, rank order relative to population size depends here on the inclusion of Home Support. Rank will undoubtedly vary depending on other variables as well. Certainly one of the main drivers of hours of service relates to health human resources. This will be discussed in the next section.

TABLE 7. RANK ACCORDING TO HOURS OF FNIHCC SERVICES AND POPULATION SIZE (WITH AND WITHOUT HOME SUPPORT)
First Nations and Inuit Home and Community Care Program, 2010

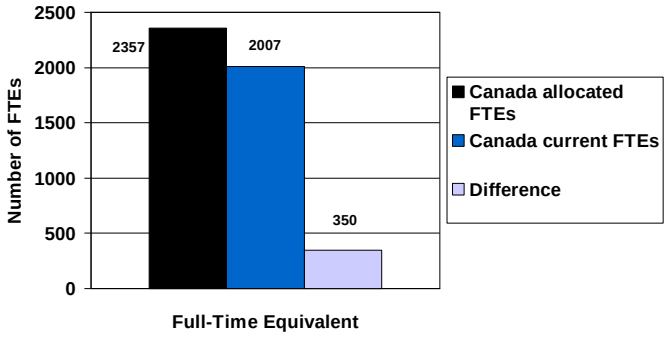
REGION	HOURS OF FNIHCC SERVICES WITH HOME SUPPORT	HOURS OF FNIHCC SERVICES WITHOUT HOME SUPPORT	POPULATION SIZE
Ontario	1	2	1
Québec	2	7	6
British Columbia	3	6	5
Atlantic	4	4	7
Manitoba	5	1	2
Saskatchewan	6	3	4
Alberta	7	5	3

Sources: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Indian and Northern Affairs Canada, *Registered Indian Population, Household and Family Projections*, 2007.
Note: Ranking is based on information that may not be wholly accurate.

3.3.2 Health Human Resources

Figure 20 shows that 2,357 full-time equivalents (FTE) were allocated in 2010 to provide FNIHCC services across Canada. However, 2,007 FTEs were employed during this time. This means 350 full-time positions were available and not yet filled, representing a fairly significant shortfall of human resources. While it would have been useful to examine allocated FTEs by specific health human resource, this could not be done as data were not available.

FIGURE 20 NUMBER OF FULL-TIME EQUIVALENTS
Number of full-time equivalents, First Nations and Inuit Home and Community Care Program, Canada, 2010



Source: Health Canada. Electronic Human Resource Tracking Tool, 2010.
Notes: Figures include administration and clerical support, allied professionals, home management support, licensed practical nurses, personal care providers, program support, and registered nurses. Data may not be completely current.

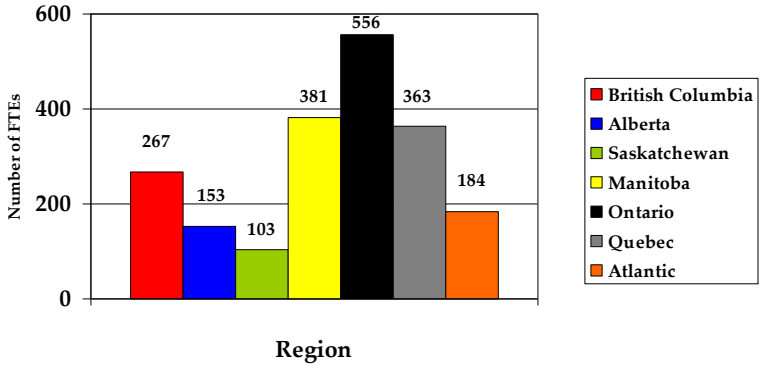
A number of reasons may explain why not all FTE positions are filled. Some of these relate to workload and scheduling to system-wide issues like scope of practice. Other reasons may relate to the location of the communities (which are often remote and isolated), and the overall shortage of nurses in Canada.

Despite these challenges, nursing continues to attract people to the profession. CIHI publishes reports on regulated nurses (i.e., registered, licensed practical, and psychiatric nurses) that cover a range of topics from demographics, trends, employment status, education, and mobility.[21] Of note, there were 348,499 regulated nurses working in nursing in Canada in 2009 and the number of working regulated nurses continues to grow.

[21] Details on CIHI's publication, *Regulated Nurses: Canadian Trends, 2005 to 2009*, are available at: https://secure.cihi.ca/estore/productFamily.htm?locale=en&pf=PFC1565.

Figure 21 shows the number of working FTEs by region and *Table 8* displays the rank of FTEs by region and population size. In 2010, Ontario led the country with the most FTEs (556), which is not surprising as this region leads in population size as well. Manitoba follows with 381 FTEs, which is also consistent with its population size (ranking second). Québec is third with 363 FTEs although it ranks sixth in terms of population size. British Columbia is fourth with 267 FTEs while ranking fifth in population, followed by the Atlantic with 184 FTEs, which is seventh in size, then Alberta with 153 and finally Saskatchewan with 103 FTEs, which are third and fourth in population size, respectively.

FIGURE 21 NUMBER OF FULL-TIME EQUIVALENTS
Number of full-time equivalents, by region, First Nations and Inuit Home and Community Care Program, 2010



Source: Health Canada. Electronic Service Delivery Reporting Tool, 2010.
Note: Data may not be completely current. Figures represent actual numbers of working full-time equivalents and not the allocated number.

TABLE 8. RANK ACCORDING TO FULL-TIME EQUIVALENT VERSUS POPULATION SIZE
First Nations and Inuit Home and Community Care Program, 2010

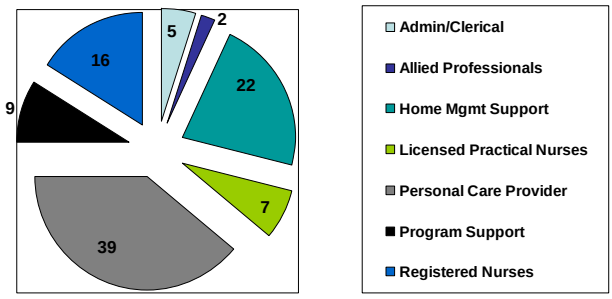
REGION	NUMBER OF FTES	POPULATION SIZE
Ontario	1	1
Manitoba	2	2
Québec	3	6
British Columbia	4	5
Atlantic	5	7
Alberta	6	3
Saskatchewan	7	4

Sources: Health Canada. Human Resources Tracking Tool, 2010.
Indian and Northern Affairs Canada, *Registered Indian Population, Household and Family Projections, 2007*.
Notes: Ranking is based on information that may not be wholly accurate.

Figure 22 shows the percentage of FTEs by category. In 2010, the majority of FNIHCC staff were involved in providing personal care (39%) followed by home management support (22%). Registered nurses (RNs) and licensed practical nurses (LPNs) comprised 16% and 7% of FTEs, respectively. The remaining FTEs were in program support (9%), administration and clerical work (5%), or worked as allied professionals (2%).

FIGURE 22 PERCENTAGE OF FULL-TIME EQUIVALENTS

Percentage of full-time equivalents, by category, First Nations and Inuit Home and Community Care Program, Canada, 2010



Source: Health Canada. Electronic Human Resource Tracking Tool, 2010.
Note: Data may not be completely current.

FNIHCC trend data on health human resources are currently not available electronically because the e-HRTT data collection system is relatively new, although these data used to be collected manually. As the electronic system matures and acquires more trend data, analysis will become much more useful.

Using actual numbers of nurses, which refers to the number of nurses and not the number of full-time equivalents who are currently employed in the FNIHCC, it is possible to calculate the number of RNs and LPNs who are available per 100,000 First Nations (though the figures represent an approximation due to the nature of First Nations population data). As *Table 9* on the following page shows, there is an average of 114 RNs and 34 LPNs in Canada who are in the FNIHCC and who are available per 100,000 First Nations population. The calculated figures range from 42 RNs per 100,000 in Manitoba to 246 RNs per 100,000 in Quebec, and 12 LPNs per 100,000 in Saskatchewan to 71 LPNs per 100,000 in Manitoba. Interestingly, Manitoba has the lowest number of RNs and the highest number of LPNs in the FNIHCC, although

regional differences in the number of LPNs may, in part, be related to Scope of Practice which can differ across the country.

TABLE 9. NUMBER OF HOME AND COMMUNITY CARE NURSES, ACTUAL TOTAL AND PER 100,000 FIRST NATIONS POPULATION, BY REGION, 2010
First Nations and Inuit Home and Community Care Program, 2010

	HOME AND COMMUNITY CARE NURSES			
REGION	**REGISTERED NURSES (PER 100,000)**	**REGISTERED NURSES (ACTUAL TOTAL)**	**LICENSED PRACTICAL NURSES (PER 100,000)**	**LICENSED PRACTICAL NURSES (ACTUAL TOTAL)**
British Columbia	132	91	41	28
Alberta	93	69	38	28
Saskatchewan	52	38	12	9
Manitoba	42	37	71	63
Ontario	102	98	26	25
Québec	246	133	15	8
Atlantic	132	29	36	8
CANADA	114	71	34	24

Sources: Health Canada. Electronic Human Resource Tracking Tool, 2010.
Indian and Northern Affairs Canada, *Registered Indian Population, Household and Family Projections, 2007.*
Notes: Data on nurses in the North were not available in a format suitable for this table. Calculated numbers are based on the actual number of staff (not full-time equivalents) and are calculated in terms of 100,000 First Nations population. Actual totals represent the true number of nurses in each region.

4.0 Discussion

Population trends suggest that home care services will become more important over the next few decades as the population ages and governments attempt to reduce expenditures and contain costs. This suggests that the FNIHCC will need to be prepared for expected increases in its client group. Furthermore, acute and chronic diseases will undoubtedly continue to play a prominent role among First Nations and Inuit over the next decade. Indeed, as the most recent First Nations Regional Health Survey has shown, First Nation adults tend to report more chronic illnesses such as

high blood pressure and asthma as they age.[22] The Inuit also face many chronic illnesses as evidenced by the age-standardized mortality rates for respiratory diseases and cancer in Inuit-inhabited regions which are higher than the Canadian average.[23]

In addition, health issues that are not as common among assessed home care clients may grow in importance, such as Alzheimer's Disease and Related Dementias (ADRD). Research suggests that the presence of risk factors such as cardiovascular conditions and diabetes may play a role in the pathogenesis of ADRD.[24] However, given that these risk factors are highly preventable, any successful interventions to reduce their incidence among First Nations and Inuit may have an impact on the prevalence of ADRD.

While health care issues affecting home care services are, in part, influenced by risk factors, broader determinants of health play an important role in health as well.[25] Indeed, the following determinants are known to have an impact on Aboriginal health:

- Income and Social Status
- Social Support Networks
- Education and Literacy
- Employment/Working Conditions
- Social Environments
- Physical Environments
- Personal Health Practices and Coping Skills
- Health Services

These determinants will undoubtedly continue to be serious impediments to health and will, therefore, have an impact on home and community care needs in the future. In addition, mental health issues will not only affect clients but human resources as well. These issues are often difficult to treat and may take their toll on family caregivers. However, research suggests that home care personnel may experience less distress (e.g.,

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[22] First Nations Information Governance Centre. (2011). First Nations Regional Health Survey: RHS Phase 2(2008/10) Preliminary Results. Available from: http://rhs-ers.ca/sites/default/files/FINALRHSPreliminaryReportJune2011.pdf.

[23] Inuit Tapiriit Kanatami. (2010). Health Indicators of Inuit Nunangat within the Canadian Context: 1994-1998 and 1999-2003. Available from: http://www.itk.ca/sites/default/files/20100706Health-Indicators-Inuit-Nunangat-EN.pdf.

[24] Rocca, W.A. et al. (2011). Trends in the incidence and prevalence of Alzheimer's disease, dementia, and cognitive impairment in the United States. *Alzheimer's and Dementia.* (17)1: pp. 80-93. Available from: http://www.sciencedirect.com/science/article/pii/S1552526010025045.

[25] For more information on determinants of health, consult the Public Health Agency of Canada's website: http://www.phac-aspc.gc.ca/ph-sp/determinants/index-eng.php.

exhaustion, physical and emotional strain) than their nursing home counterparts.[26] This may not be the case for individuals working in remote areas where isolation and community social conditions affect the delivery of care and a client's health status.

Technological change is expected to continue marching forward, affecting the way care is delivered and received. This will also affect the way data are collected. An innovative pilot project is currently underway in Alberta to gauge the uptake and effectiveness of the interRAI among First Nation users. While the interRAI is currently used in most of Canada, Quebec uses its own data collection system, the Functional Autonomy Measurement System. Should the interRAI prove useful to First Nations, it could have a dramatic impact on the delivery of care and health outcomes, as well as proving to be invaluable in evidence-based decision-making. This could ultimately replace the FNIHCC's current data capture system.

Although little information is currently available on health outcomes as they relate to FNIHCC, some recent research suggests that the program may be generating results. For example, in a study of the FNIHCC's impact, researchers looked at the rates of hospitalisation for ambulatory care sensitive conditions (ACSC) in Manitoba.[27] Using six-digit postal code data from Vital Statistics, Manitoba's Population Health Registry, and hospital record files, researchers were able to examine de-identified resource utilization trend data for any given patient or particular medical diagnosis, including hospitalisations. Hospitalisation rates were examined among individuals in Manitoba, rural Manitoba, and those living on First Nation reserves during three different time periods: 1989/92 (as the overall baseline); 1996/99 (as the FNIHCC-specific baseline); and 2002/05 (as the post-intervention comparison). Study authors found a statistically significant association between the FNIHCC and a drop in the rates of hospitalisation for ACSC for all conditions and chronic conditions. While this finding is rather compelling, authors did emphasize that the study showed an association and not causation. In other words, they could not conclude with certainty that the observed decrease in the rate of ACSC was caused by the FNIHCC. Further research is required.

It is clear that the aging population will result in expected increases in illness, and as this occurs, health systems will face important challenges. Despite this, data collection systems like the e-SDRT and the e-HRTT will help inform solutions so that First Nations and Inuit, health providers, decision-makers, band councils, communities and

[26] Hasson, H. and Arnetz, J.E. (2008). Nursing staff competence, work strain, stress and satisfaction in elderly care: a comparison of home-based care and nursing homes. *Journal of Clinical Nursing*. 17(4): pp.468-481. Available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2702.2006.01803.x/pdf.
[27] Lavoie, J.G. et al. (2011). Is it worthwhile to invest in home care? *Healthcare Policy*. 6(4): pp. 35-48. Available from: http://www.longwoods.com/content/22395.

researchers are better able to respond to these challenges. Whatever the solutions are, home and community care will certainly be at the forefront to ensure that First Nation and Inuit clients have the care they need when they need it.