Health Canada Santé Canada

Your health and safety... our priority. *Votre santé et votre sécurité... notre priorité.*

First Nations and Inuit Health

Health Status of First Nations On-Reserve in Atlantic Canada 2012

Canada

FNIHB Atlantic Region Health Status Report, 2010-2012
H33-1/15-2012E

Table of Contents

List of Figures

List of Tables

List of Acronyms

AANDC . . . . . Aboriginal Affairs and Northern Development Canada

ADI . . . . . The Aboriginal Diabetes Initiative

AFN . . . . . Assembly of First Nations

AHSOR . . . . . Aboriginal Head Start On-Reserve

BWA . . . . . Boil Water Advisory

CBRT . . . . . Community Based Reporting Template

CCHS . . . . . Canadian Community Health Survey

COHI . . . . . Children's Oral Health Initiative

CPNP . . . . . Canada Prenatal Nutrition Program

DNC . . . . . Do Not Consume

EHIS . . . . . Environmental Health Information System

EHO . . . . . Environmental Health Officer

EPHP . . . . . Environmental Public Health Program

eSDRT . . . . . Electronic Service Delivery Reporting Template

FASD . . . . . Fetal Alcohol Spectrum Disorder

FNIHB . . . . . First Nations and Inuit Health Branch

FNIHB–AR . . . . . First Nations and Inuit Health Branch, Atlantic Region

HCC . . . . . Home and Community Care

HIA & eHSD . . . . . Health Information Analysis & e-Health Solutions Directorate

IR . . . . . Indian Registry

IRS . . . . . Indian Residential Schools

MCH . . . . . Maternal Child Health Program

NIHB . . . . . Non-Insured Health Benefits

NNADAP . . . . . National Native Alcohol and Drug Abuse Program

PHAC . . . . . Public Health Agency of Canada

RHS . . . . . First Nations Regional Longitudinal Health Survey

SVS . . . . . Status Verification System

Forward

First Nations and Inuit Health Branch – Atlantic Region (FNIHB-AR), as outlined in its Strategic Plan, works with partners and clients toward a health status for First Nations and Inuit people that is comparable to that of the general population. To determine our progress toward this goal, First Nations need health status data for their respective populations.

Based on the best data available to FNIHB-AR at the time, this report provides a snap shot of the current health status of on-reserve First Nations in the Atlantic region. It is hoped that as health status reporting develops, discussion will continue around:

- The role of health data in community health planning.
- Finding data sources for community health plans.
- Using data from this report to inform services at the community level.
- Accessing new data sources for future reports.
- Improving data quality for future reports.

Health status reports will be completed annually and available to First Nations Health Directors and Chiefs. These regional First Nations data can be used to compare to community level indicators thereby allowing First Nations leadership to make evidence-based decisions about health service delivery in their communities. As the availability and quality of health data improves, health status reports will also improve by including more and better quality data sets.

Communities have expressed an interest in receiving their community level information to assist with community health planning processes. For variables presented in this report based on FNIHB data holdings, health directors can request data specific to their communities by contacting **Atlantic_Epis@hc-sc.gc.ca**.

It is anticipated that this report on the health status of First Nations in Atlantic Canada will be a useful tool for communities. An evaluation form is included with this report. We would appreciate feedback so that we can continue to improve this report in the future.

Regards,

Debra Keays-White, Regional Executive Officer
First Nations and Inuit Health Branch - Atlantic, Region Health Canada

The data in this report represent the best available data holdings at First Nation and Inuit Health Branch from 2007 to 2011 and consist of FNIHB program reports and the Non-Insured Health Benefits (NIHB) Pharmacy Claims database.

Data from the 2008-2010 First Nation Regional Longitudinal Health Survey (RHS), Aboriginal Affairs and Northern Development Canada (AANDC), Statistics Canada are also included.

It is important to be aware of data limitations as the limitations can impact how the data are interpreted.

Section 1: Introduction

1.1 Data Sources

The data in this current report represent the best available data holdings at FNIHB (both regionally and nationally) from 2007 to 2011. These holdings consist of FNIHB program reports and the Non-Insured Health Benefits (NIHB) Pharmacy Claims database. Data from Aboriginal Affairs and Northern Development Canada (AANDC) and Statistics Canada are also included.

When reviewing data, it is important to be aware of the data limitations as these limitations can impact data interpretations. A limitation common to all FNIHB program data is that some communities do not submit reports or they submit incomplete reports. It is unclear how these missing data would change the results presented within this report. Descriptions and limitations related to each data source used in this report are provided in subsections 1.1.1 and 1.1.2.

1.1.1 FNIHB Program Data

Canada Prenatal Nutrition Program (CPNP)

The program includes pregnant First Nations women, mothers of infants, and infants up to 12 months of age, and First Nations women of child-bearing years who live on-reserve. The CPNP reports include data about births, breastfeeding, and risk behaviours. While this information is valuable, not all eligible women participate in the program.

Electronic Service Delivery Reporting Template (eSDRT) – Home and Community Care

It is mandatory for all communities to submit monthly eSDRT reports. The reports are used to document hours of service and not to report health status. However, it is helpful for community health planning purposes to know what populations are being served and what services are provided most often.

Data entry errors can result in under reporting in one category and over reporting in another when information is entered in the wrong service type category. Currently, this issue is being addressed by more clearly defining the service type categories.

Also, the primary reasons reported for home care services do not reflect discreet numbers of clients; rather they reflect the number of occurrences. For example, one person could have been seen for diabetes 10 times, counting for 10 contacts; two people could have been seen for cardiovascular reasons, five times each, for a total of 10 contacts.

Environmental Health Information System (EHIS)

Environmental health officers (EHO) enter inspection data in the EHIS database.

FNIHB Dental Database Service and Productivity Reports

Services provided by dental therapists and Children's Oral Health Initiative service providers are entered into FNIHB web-based dental database.

Immunization

It is mandatory for all communities to report their immunization coverage rates, yet not all communities do so, and some reports are incomplete. Therefore, coverage rates cannot be calculated. Additionally, some children receive their immunizations off-reserve and are not represented in the immunization report. Therefore, immunization coverage rates reported for the Atlantic region are likely not as low as reported.

Teleform

The fax-based Teleform system is used by communities to report births, deaths, and notifiable diseases. However, community health nurses who fill out the reports may not be aware of all deaths or notifiable diseases, and are unable to report them.

WaterTrax

WaterTrax is used by community-based water monitors and EHOs to record water quality data.

Non-Insured Health Benefits (NIHB) Pharmacy Claims Database

The NIHB database is a valuable and unique tool for estimating First Nations health.

The following limitations should be considered when interpreting information based on NIHB data:

- The place of residence for claimants (on- or off-reserve) cannot be identified.
- Prescriptions paid by cash, other drug plans, or through NIHB in another region are not captured in this report.
- Approximately two-thirds of eligible First Nations band members access at least one prescription per year; estimates of medication usage based on the pharmacy claims database may underestimate utilization for the Atlantic First Nations population.
- Information is not available regarding the reason for prescribing the medications, whether the medications were used as prescribed, or if the medications were used by the person they were prescribed to.

1.1.2 Aboriginal Affairs and Northern Development Canada Indian Registry

The Indian Registry (IR) includes all Registered Indians (persons registered under the Indian Act) living on-reserve, off-reserve, outside Canada and those in institutions. Key demographic data includes age, sex, and residence (on- or off-reserve).

The following limitations should be considered:

- Delays in reporting births and deaths.
- Information about individuals moving on - or off - reserve may not be captured as residence is usually only reported to AANDC at the time of birth or death of an individual.
- Only registered First Nations are included in the registry so the on-reserve population may not be accurately reflected.

In this report, AANDC on-reserve population counts are used as the denominator for all rate calculations.

A **surveillance plan** is a document that details how to systematically increase the amount and quality of health information. The focus of a surveillance plan is on health status indicators such as immunization coverage or childhood obesity rates.

Section 2: What is a Surveillance Plan?

Quality health information is a powerful tool for facilitating taking control of and improving health. Collecting and analyzing health data helps to identify and address developing health situations, track health status changes over time, and evaluate how well programs are working.

There are considerable gaps in health information for First Nations and Inuit peoples for use in health status assessment, surveillance, and community health planning. Where information is available, there are issues concerning the quality of the information. Recognising that good quality health information is vital for making evidenced-based decisions, the question of how to increase and improve the quality and quantity of health data for First Nations communities arises.

A surveillance plan is a document that details how to systematically increase the amount and quality of health information.

The focus of a surveillance plan is on health status indicators such as immunization coverage or childhood obesity rates. This differs from quality improvement indicators such as 'number of workshops offered' or 'number of pamphlets developed'.

There are four components to a surveillance plan:

- Develop a process for choosing health priorities or determinants on which to focus.
- Identify specific indicators to measure for each priority/determinant.
- For each indicator, identify the data source, how often it will be reported, and whether or not data are currently available to the community or if a data source needs to be developed or accessed (Table 1).
- Identify how and by whom data will be analysed and reported.

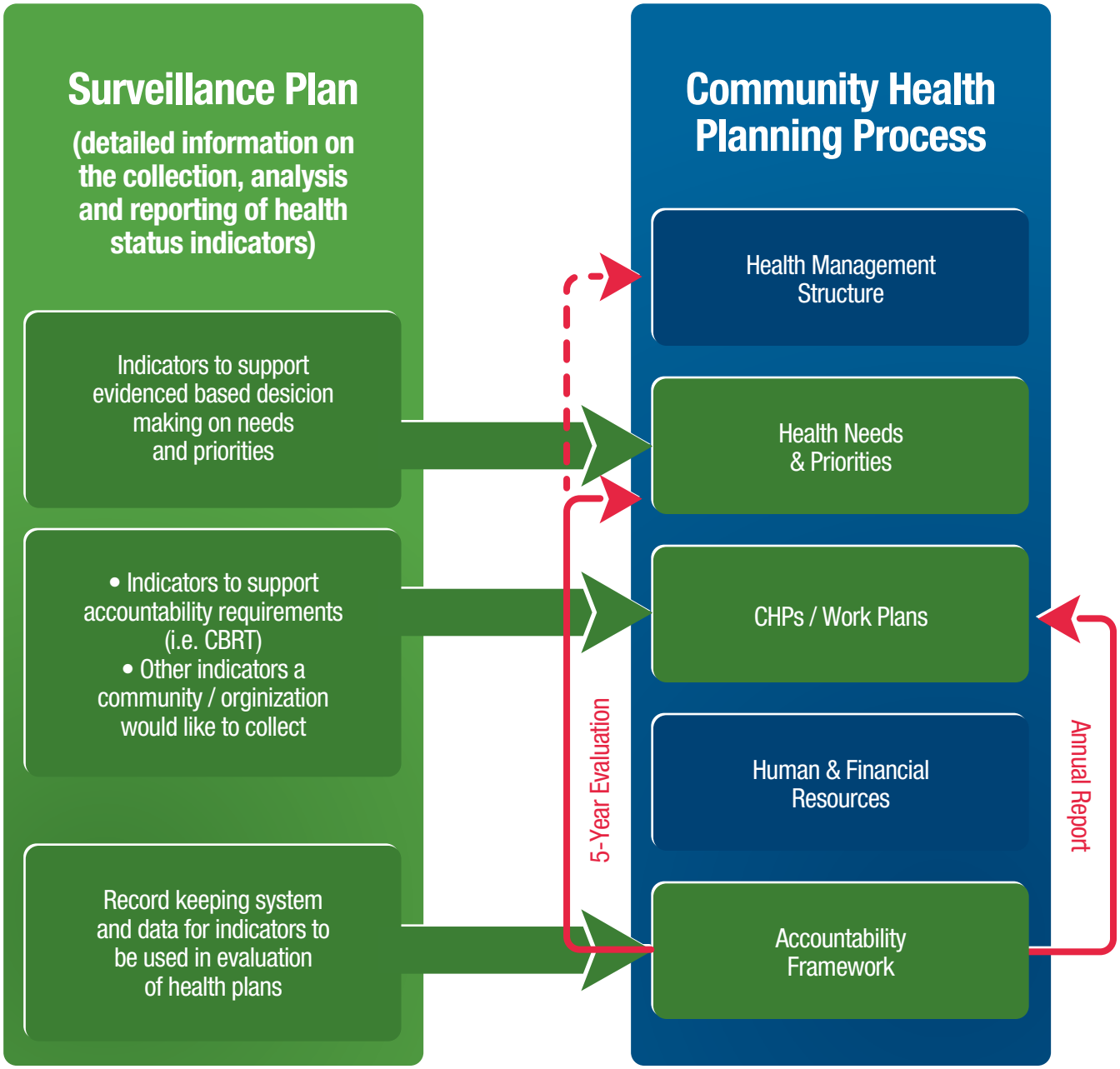
Table 1. Indicator, Data Source, Reporting Frequency, and Data Availability for Surveillance Plans

Indicator	Data Source (community, province, FNIHB, etc.)	Reporting Frequency (annually, every 5 years, etc. based on availability.)	Indicator Currently Collected or Data Held
1. Community Priority Area / Determinant of Health			

How does a Surveillance Plan fit with community health planning?

A surveillance plan is linked directly to the community health planning process through identification of health needs and priorities, the work plan, and the accountability framework. The relationship is illustrated in Figure 1.

Figure 1. Surveillance Plan and Community Health Planning Process



How many health status indicators should a community have in their health plan and/or workplan?

The community can choose the number of health status indicators to be included in a community's health plan and/or workplan. It is suggested that the community identify one or two health status indicators for each health priority, in addition to the indicators within the Community Based Reporting Template (CBRT) as the community has to collect these anyway for accountability purposes.

A community could choose additional indicators for either health status or quality improvement, keeping in mind that for each indicator chosen there could be a considerable amount of work needed to collect it.

What is the Population Health Surveillance Capacity Development Project?

The Population Health Surveillance Capacity Development Project was a five year project (2007-2012) to help increase capacity for population health surveillance in the Atlantic region.

This project included:

- Documentation of surveillance plans (for FNIHB-AR and the eight First Nations communities participating).
- Development of client registries or linking files so that communities could get their own data out of provincial databases.
- Use of business intelligence tools for data analysis.

While the project took place in eight communities, the lessons learned are being applied to all communities. The project is being evaluated in 2012-2013.

38%

In 2011, the Qalipu Mi'kmaq First Nation Band accounted for approximately **38%** of the Atlantic Canadian Registered Indian population.

Section 3: Social Environment

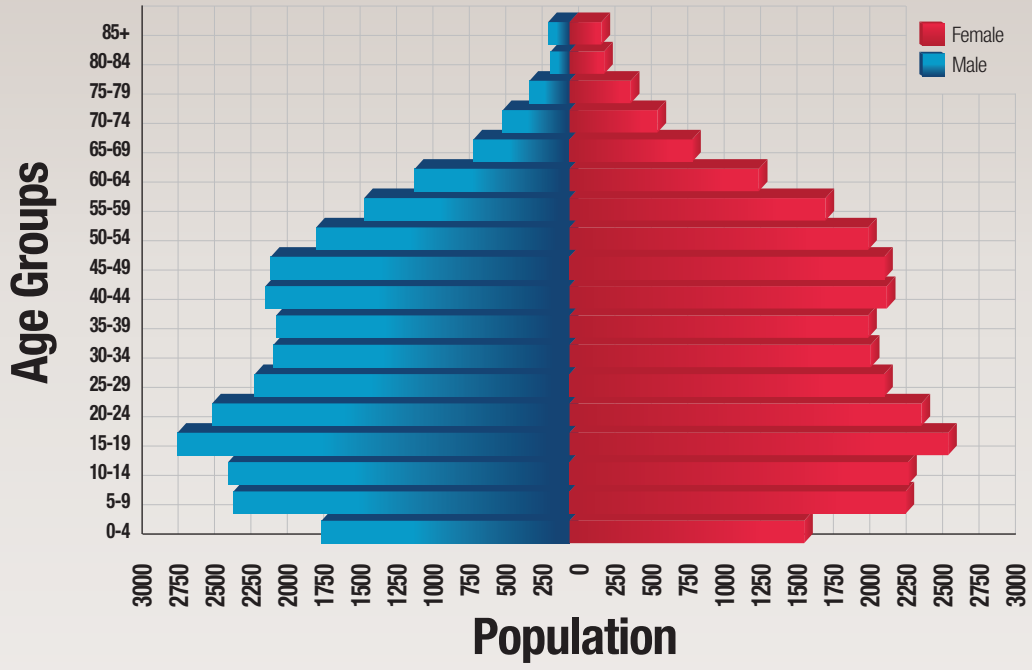
Data identifying the social environment for First Nations on-reserve (i.e., family, peers, and community) are minimal. The population counts are included here as they describe the age and sex distribution within the Registered Indian population. This information, as well as information related to population growth, provides insight into current and future health needs, which directly impacts the social environments of First Nations people.

3.1 Population Counts

In 2011, the Qalipu Mi'kmaq First Nation Band of Newfoundland was established and by September 2011, had a membership of approximately 27,000 people with approximately 21,400 band members recognized as Registered Indians.[1] In 2011, the Qalipu Mi'kmaq First Nation Band accounted for approximately 37.7% of Atlantic Canadian Registered Indians. There was a total of 56,822 Atlantic Canadian Registered Indians in 2011; 27,780 males and 29,042 females (Figure 2). Approximately, 39.9% of the population was aged 24 years and younger while 7.0% was 65 years and older.

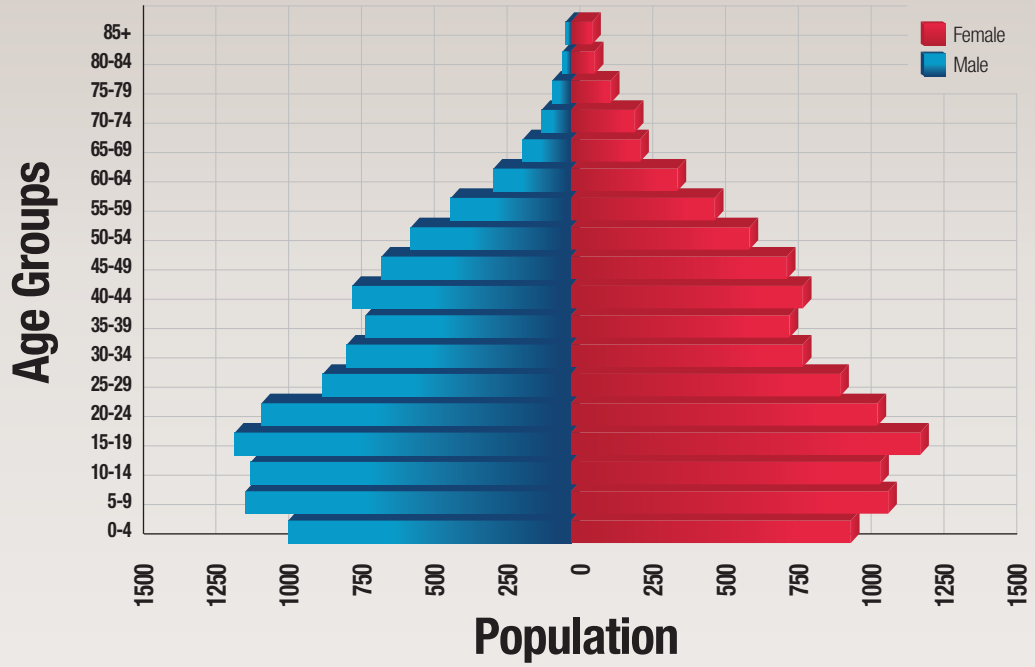
Approximately 39.1% of the Registered Indian population lived on-reserve (22,217); 11,112 males and 11,105 females (Figure 3). Almost half (48.3%) were aged 24 years and younger; 4.9% were aged 65 years and older.

Figure 2. Total Population of Registered Indians in Atlantic Canada by Age and Sex (2011)



Source: *AANDC's Indian Registry System (2011)*

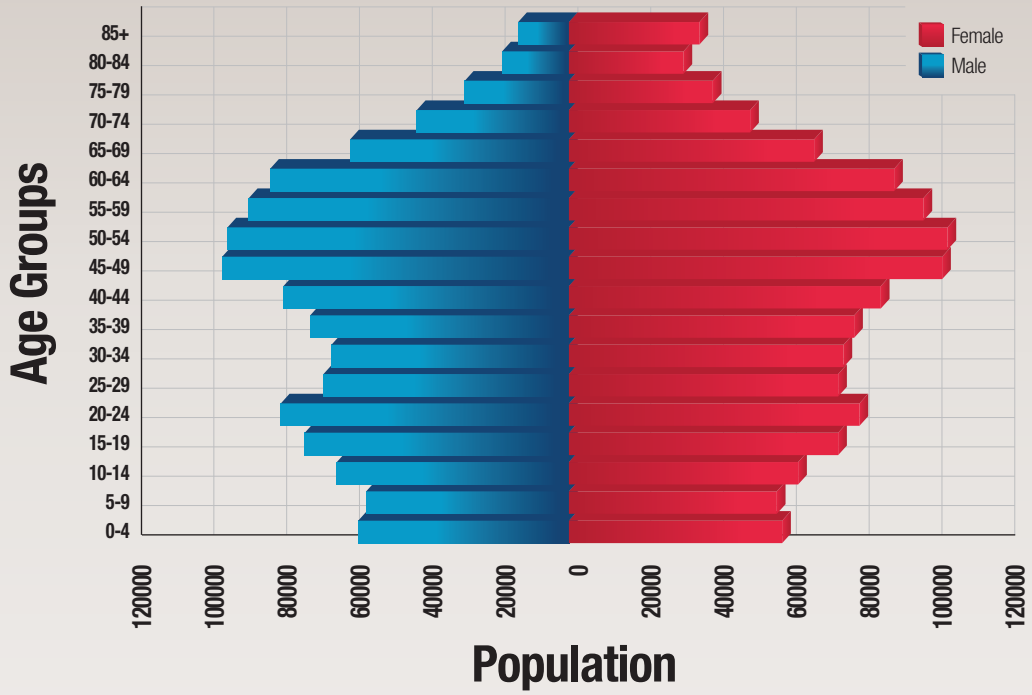
Figure 3. Total Population of Registered Indians Living On-Reserve in Atlantic Canada by Age and Sex (2011)



Source: *AANDC's Indian Registry System (2011)*

In 2011, the population in Atlantic Canada was 2,357,325; 1,152,323 males and 1,205,002 females (Figure 4). Approximately 27.6% of the population was aged 24 years and younger while those aged 65 and older represented 16.2% of the population.

Figure 4. Total Population in Atlantic Canada by Age and Sex (2011)



Source: *Statistics Canada, Census of Population estimates, 2011*

The population growth rate for Atlantic region First Nations on-reserve was 4.2% from 2009 to 2011 with an average annual growth rate of 1.4%. Based on population estimates for the general Atlantic region population, the population growth rate was 0.7% from 2009 to 2011. The average annual growth rate was 0.2%.

3.2 Aboriginal Head Start On-Reserve (AHSOR)

The primary goal of the AHSOR program is to demonstrate that early-intervention strategies that are controlled and designed at the community level can provide First Nations preschool children from birth to age six, with a positive sense of themselves, a desire for learning, and opportunities to develop successfully.

AHSOR program information is reported through CBRT by the communities and organizations that are required to report through CBRT (Table 2).

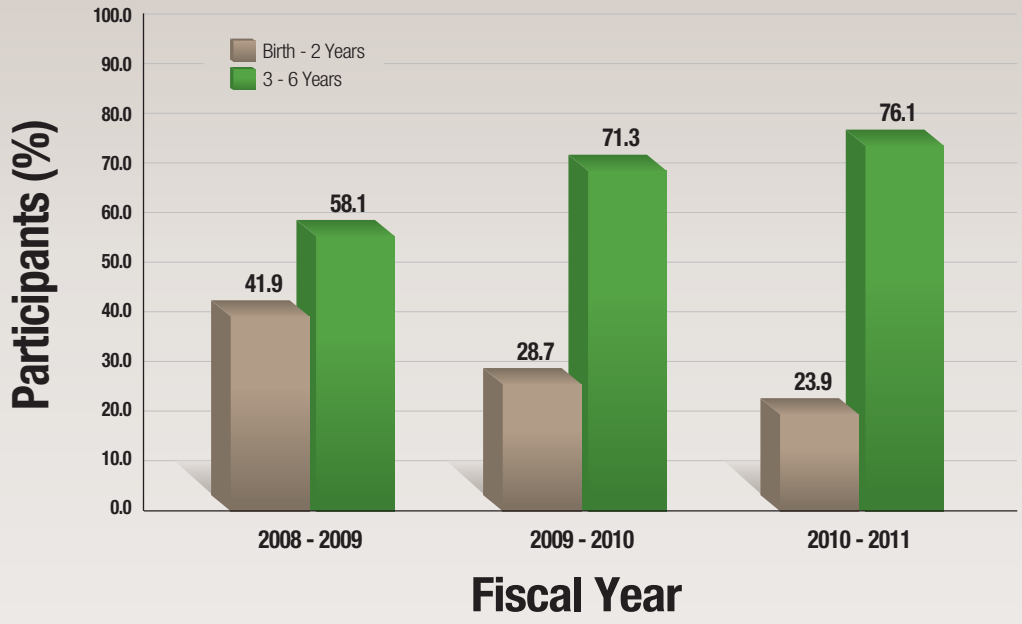
Table 2. Number of AHSOR Participants (2008-2011)

Fiscal Year	Number of First Nations Communities/Organizations Reporting	Number of AHSOR Participants
2008-2009	6	136
2009-2010	12	495
2010-2011	12	285

Source: *Community Based Reporting Template regional reports (2008-2011)*

Based on the community reports from 2008 to 2011, the proportion of children from birth to two years of age enrolled in AHSOR programs decreased from 2008-2009 to 2010-2011 (Figure 5). Conversely, the proportion of children three to six years of age increased each year. According to the 2008-2010 First Nations Regional Longitudinal Health Survey (RHS)[2], approximately 36.4% of Canadian First Nations children on-reserve attended an Aboriginal Head Start program.

Figure 5. Percentage of AHSOR Participants by Age (2008-2011)

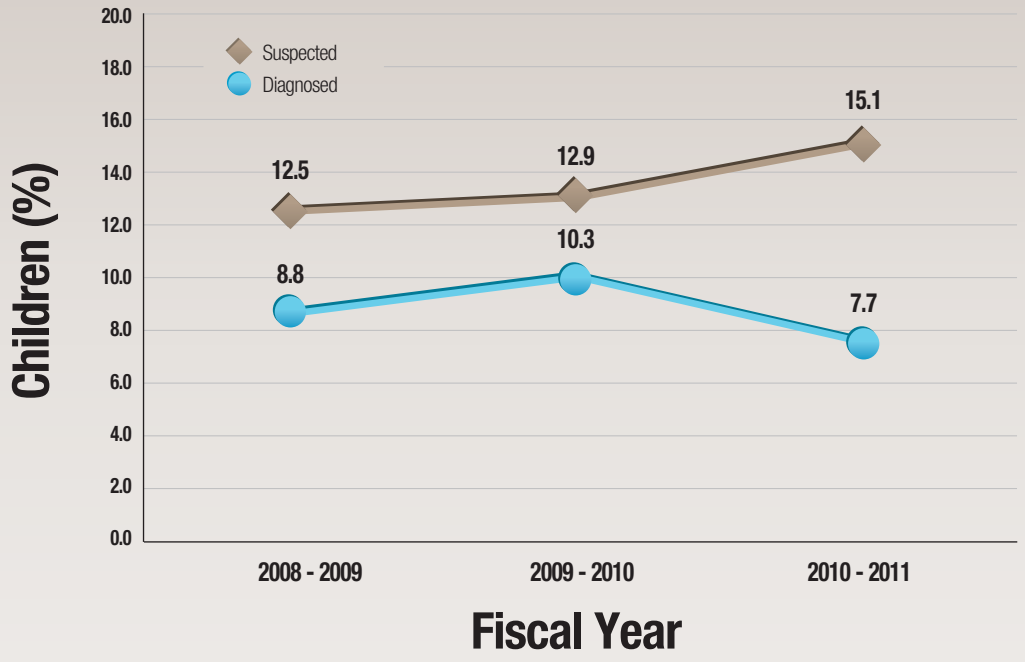


Source: *Community Based Reporting Template regional reports (2008-2011)*

The AHSOR program provides information about children in the program who have been identified as having a special need. In the CBRT for the Atlantic region, special needs are defined as "children who require additional support(s) or service(s) for healthy development in order to interact with their peers in the day-to-day life of the community. Special needs may include physical, sensory, cognitive and learning challenges, mental health issues as well as problems due to societal, cultural, linguistic or family factors."

The percentage of children diagnosed with special needs was lower than the percentage of children suspected of having a special need for all three years (Figure 6). The percentage of children diagnosed with a special need increased from 2008-2009 to 2010-2011; and decreased to 7.7% in 2010-2011. The percentage of children suspected of having a special need was relatively stable at approximately 13% for the first two fiscal years; but increased to 15% in 2010-2011.

Figure 6. Percentage of Children in the AHSOR Program Diagnosed with a Special Need or Suspected of Having a Special Need (2008-2011)



Source: *Community Based Reporting Template regional reports (2008-2011)*

3.3 Children in Care

The number of children in care for First Nations living on-reserve in Atlantic Canada includes children aged 18 years and younger living in foster care, group homes, institutions, Kinship Care, and post-adoption subsidies and supports.[3]

Although the percentage of children in care was approximately the same for 2008-2009 and 2009-2010, both the average number of care days per child and the number of annual care days increased (Table 3).

The percentage of children in care increased in 2010-2011, yet the average number of care days per child and the annual number of care days decreased.

Table 3. Atlantic Region First Nations On-Reserve Children 18 Years Old and Younger in Care

Fiscal Year	Percentage of Children in Care	Average Care Days per Child	Annual Care Days
2008-2009	6.2	330	177,185
2009-2010	6.4	361	197,624
2010-2011	7.3	322	196,043

Source: *AANDC Regional data submissions; 2009, 2010, 2011*

Section 4: Physical Health

4.1 Notifiable Disease

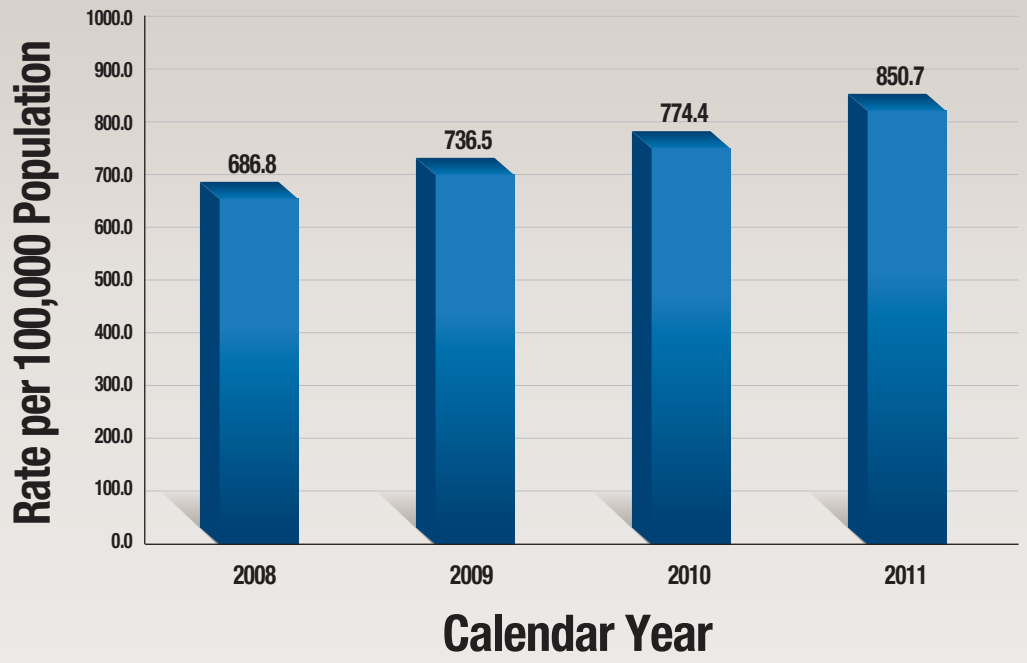
A notifiable disease is one that is required by provincial and/or territorial legislation to be reported to provincial/territorial public health officials.[4] Atlantic region First Nations communities report notifiable diseases to FNIHB-AR on a monthly basis via the Teleform reporting system. The most commonly reported notifiable disease between 2008 and 2011 was chlamydia. As of 2008, chlamydia was also the most commonly reported sexually transmitted infection in Canada.[5]

Untreated chlamydia in women can result in pelvic inflammatory disease, which can lead to chronic pelvic pain, ectopic pregnancy, and infertility.[5]

Pregnant women can transmit chlamydia to their infants during childbirth, resulting in outcomes such as neonatal conjunctivitis or pneumonia.[5] Chlamydia may increase the risk of acquiring HIV and transmitting HIV.[5]

The rates of chlamydia among Atlantic region First Nations on-reserve increased steadily from 686.8 per 100,000 population in 2008 to 850.7 per 100,000 population in 2011 (Figure 7). In 2008 and 2009, the rates of chlamydia among Atlantic region First Nations were approximately 2.5 and three times the rates reported for the general Canadian population (248.8 per 100,000 population and 258.5 per 100,000 population, respectively).[6]

Figure 7. Chlamydia Rates (per 100,000 Population) Among Atlantic Region First Nations On-Reserve (2008-2011)



Source: *Atlantic region Teleform community reports (2008-2011); AANDC Indian Registry System (2008-2011)*

4.2 Chronic Disease

Chronic diseases, including diabetes and cardiovascular disease (which includes heart disease and stroke) develop and are experienced over time. Approximately 63% of Canadian First Nations on-reserve aged 18 years and older self-reported having been diagnosed with at least one chronic health condition.[2] By age 60, approximately 50% reported having four or more chronic health conditions. The rates of both diabetes and cardiovascular disease are reported to be higher among Aboriginal and First Nations Canadians than among the general Canadian population.[7,8]

4.2.1 Diabetes

It is difficult to know the exact numbers of First Nations on-reserve with diabetes as there is no systematic reporting or surveillance of diabetes in First Nations communities in Atlantic Canada. The prevalence of diabetes among First Nations is estimated to be three to five times higher than rates among the Canadian population.[8]

Based on the 2008-2010 RHS[2], 16.2% of Canadian First Nations living on-reserve (18 years and older) self-reported having been diagnosed with diabetes. The age standardized prevalence among First Nations aged 25 years and older was 20.7%. Of the people who reported having been diagnosed with diabetes, 80.8% self-reported being diagnosed with type 2 diabetes and 9.4% with type 1. The prevalence was higher among females than among males and increased with increasing age. Approximately 5.8% of First Nations women self-reported having gestational diabetes.[2]

In 2008-2009, the prevalence of diabetes (combined type 1 and type 2) among the Canadian population aged one year and older was 6.8%; 6.4% among females and 7.2% among males.[9] The prevalence of diabetes among the Canadian population aged 20 years and older was 8.7%. Gestational diabetes affects about 4% of all pregnancies in the general Canadian population.[10]

In the absence of a diabetes surveillance system for First Nations in Atlantic Canada, Health Canada's NIHB pharmacy claims database was used to estimate diabetes prevalence. The NIHB system was used to identify First Nations registered to Atlantic region bands (both on- and off-reserve) that had a claim for antidiabetic medications (i.e., pills taken by mouth and injectable insulin) in the Atlantic region for the calendar years 2007 to 2011.

Prevalence

The prevalence provides a picture of how widespread a particular issue (i.e., diabetes) is in the community and includes all people with the issue (new and ongoing cases). The prevalence can be presented for the entire population and/or for subsets of the population (e.g., males, females, age groups) for a specified time period.

The proportion of Atlantic region band members who had a claim for an antidiabetic medication in a specified year was calculated as:

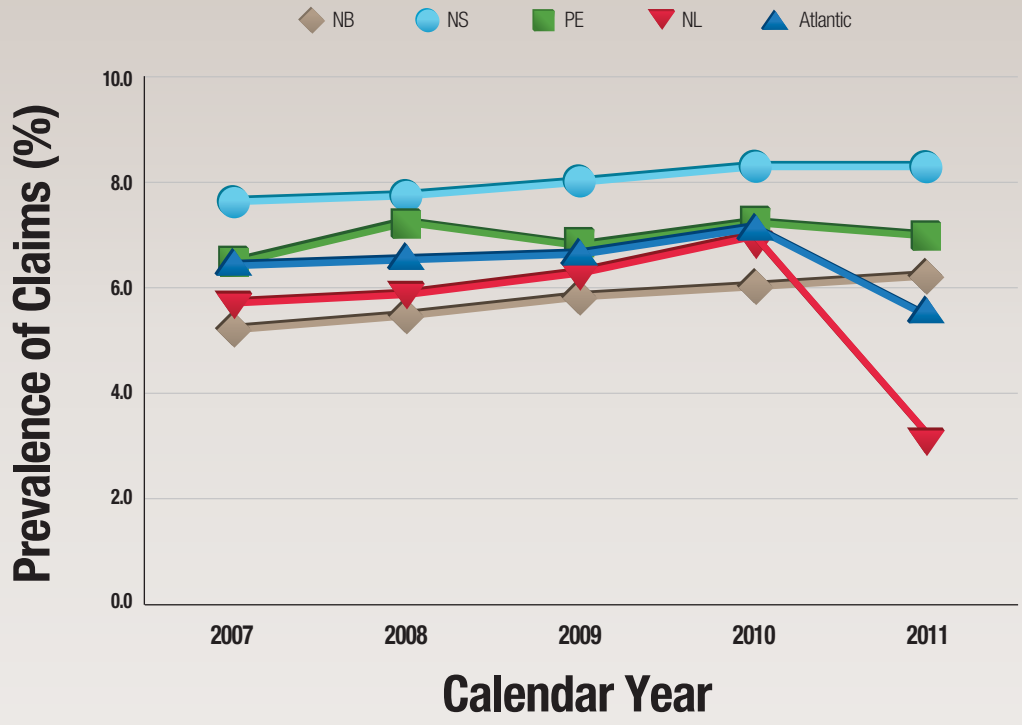
$$\textbf{Prevalence} = \frac{\text{number of Atlantic region band members who had at least one antidiabetic medication claim in a specified calendar year}}{\text{Total band population in the specified calendar year}}$$

The prevalence of band members who had at least one antidiabetic medication claim was the highest among Nova Scotia band members at approximately 8% for each year (Figure 8). For Prince Edward Island band members the prevalence was approximately 7% from 2008 – 2011. From 2007 to 2009, the prevalence was similar between New Brunswick and Newfoundland and Labrador band members at approximately 6%. In 2010, the prevalence increased in Newfoundland and Labrador.

It should be noted that while the number of Newfoundland and Labrador band members who had at least one antidiabetic medication claim increased from 2010 (n=346) to 2011 (n=849), the prevalence decreased from 7% to 3.2%. This is due to the increase in the population eligible to access the NIHB program with the establishment in 2011 of the Qalipu Mi'kmaq First Nation Band. This increase in population is also reflected in the prevalence decrease for the Atlantic region (Figure 8).

With the exception of Prince Edward Island, the prevalence was higher among females than among males for the other three provinces across the five years. The differences ranged from approximately 1% to 2%; in Newfoundland and Labrador the differences ranged from 1% to 3%. In Prince Edward Island the prevalence was higher among males than among females in each year. The differences ranged from 2.2% to 3.4%. Higher prevalence among First Nations females is consistent with other data found in the literature.[2] Among non-First Nations Canadians, the prevalence of diabetes is generally higher among males than among females.[9]

Figure 8. Prevalence of Antidiabetic Medication Claims Among Atlantic Region Band Members by Province (2007-2011)

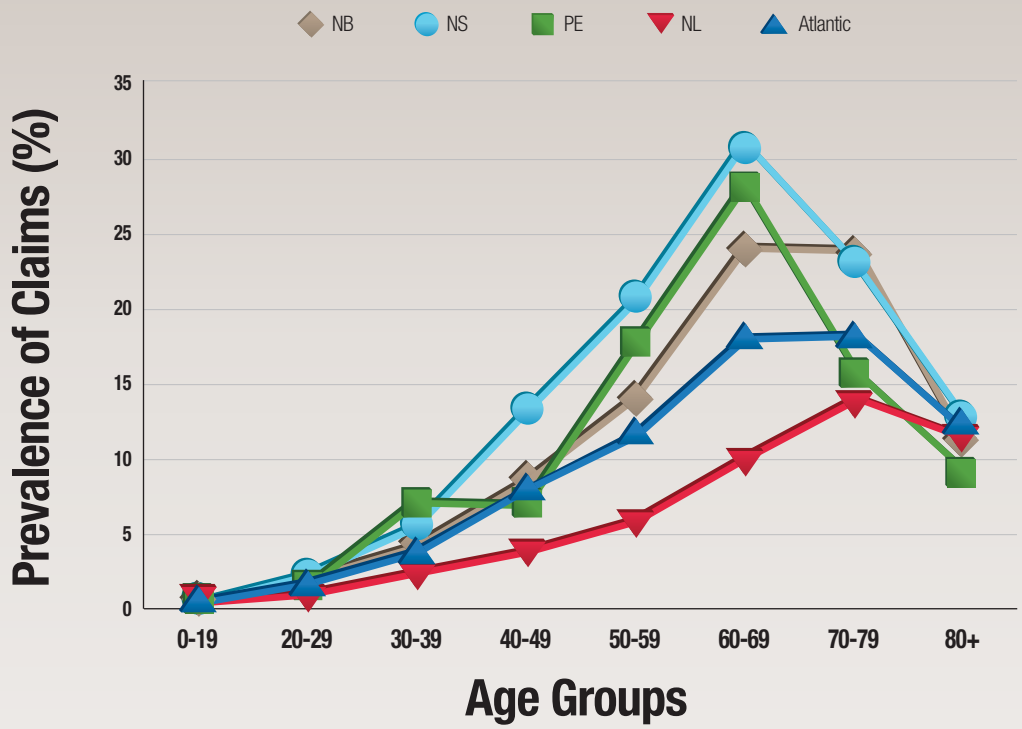


Source: *Non-Insured Health Benefits Pharmacy Claims Database (2007-2011); AANDC Indian Registry System (2007-2011)*

In 2011, with the exception of Newfoundland and Labrador, the prevalence of band members who had at least one antidiabetic medication claim increased with age up to the 60 to 69 age group (Figure 9). After age 69, the prevalence either remained the same or decreased. In Newfoundland and Labrador, the prevalence increased to 14% among band members aged 70 to 79 years.

The highest prevalence across all age groups occurred in Nova Scotia. In particular, the prevalence among Nova Scotian band members aged 40 to 49 years was higher than same-aged band members in the other provinces and the Atlantic region by differences of 5% to 9%.

Figure 9. Prevalence of Antidiabetic Medication Claims Among Atlantic Region Band Members by Age and Province (2011)



Source: *Non-Insured Health Benefits Pharmacy Claims Database (2011); AANDC Indian Registry System (2011)*

The differences by age and sex vary across provinces. In Nova Scotia and Prince Edward Island, the prevalence was higher among females than among males up to age 49 and higher among males than among females aged 50 years and older.

In New Brunswick, the prevalence was higher among female band members aged 20 to 39 years and 80 years and older; the prevalence was higher among males aged 40 to 79 years. There was no difference for the 0-19 age group.

In Newfoundland and Labrador, with the exception of band members aged 60 to 69 years, the prevalence was higher among females than among males. The prevalence was the same for the 0-19 age group.

For the Atlantic region, the prevalence was higher among females than among males up to age 49. For band members aged 50 to 79 years, the prevalence was higher among males than among females. After age 80, the prevalence was higher among females.

Incidence

While the prevalence describes how widespread an issue (i.e., diabetes) is and includes all people with diabetes, incidence refers only to new cases of diabetes. As with prevalence, this information can be provided for the entire population of the community and/or for subsets of the populations (e.g., males, females, age groups) for a specific year.

From a planning perspective, it is helpful to know the incidence as this can provide some evidence as to whether or not specific programming is effective.

The proportion of Atlantic region band members identified as new claimants for antidiabetic medications in a specified calendar year was calculated as:

$$\textbf{Incidence} = \frac{\text{number of band members who had at least one antidiabetic medication claim in a specified calendar year, without any claims for antidiabetic medications in the prior calendar year}}{\text{Total band population in the specified calendar year}}$$

It should be noted that to compare across years and between varying sources of data, the incidence is expressed as per 1,000 population, which is the standard method of reporting incidence.

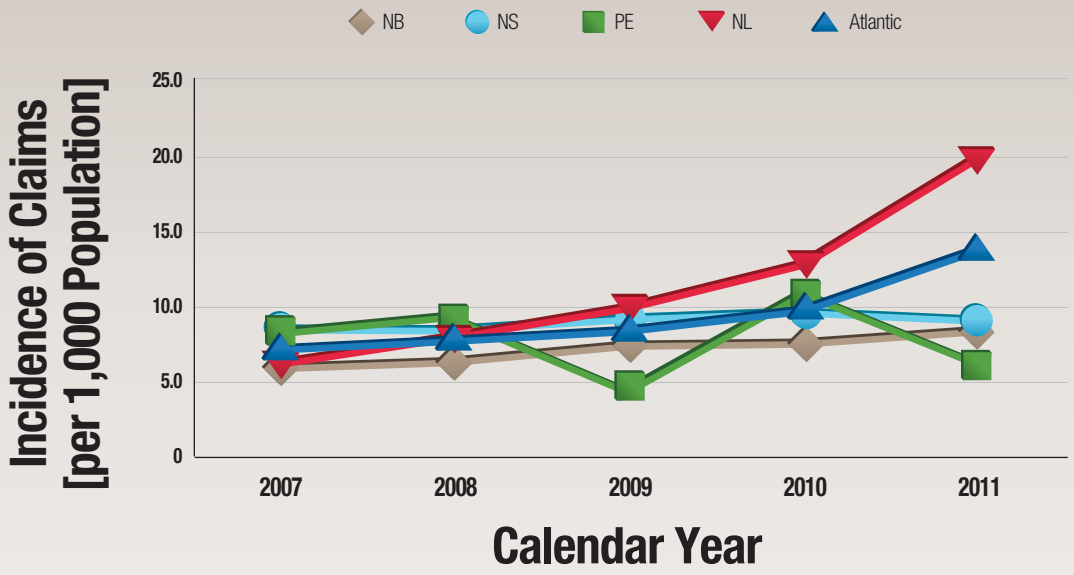
The incidence rates of antidiabetic medication claims and the trends across years differed among provinces (Figure 10). The incidence of claims among New Brunswick band members increased from 6.0 per 1,000 population in 2007 to 8.2 per 1,000 population in 2011. In Nova Scotia, the incidence rate was relatively stable from 2007 to 2009 at approximately 9.0 per 1,000 population. There was an increase to 9.8 per 1,000 population in 2010 and then a decrease in 2011.

The incidence rates increased steadily from 2007 to 2011 among Newfoundland and Labrador band members (Figure 10). The sharp increase in incidence rates from 2010 to 2011 are likely due to the establishment of the Qalipu Mi'kmaq First Nation Band in 2011 which increased the population eligible to access the NIHB program.

There was no apparent trend in the incidence rates among Prince Edward Island band members (Figure 10). The incidence rates of antidiabetic medication claims increased from 8.8 per 1,000 population in 2007 to 9.5 per 1,000 population in 2008. The incidence decreased to 5.1 per 1,000 population in 2009 and then doubled to 10.9 per 1,000 population in 2010. In 2011, the incidence decreased to 6.6 per 1,000 population.

The incidence of diagnosed diabetes among the general Canadian population aged one year and older was 6.3 per 1,000 population in 2008-2009.[9]

Figure 10. Incidence Rate (Per 1,000 Population) of Antidiabetic Medication Claims Among Atlantic Region Band Members by Province (2007-2011)



Source: *Non-Insured Health Benefits Pharmacy Claims Database (2007-2011); AANDC Indian Registry System (2007-2011)*

4.2.2 Cardiovascular Disease

Compared to non-Aboriginal populations, Aboriginal and First Nations populations are at an increased risk for developing cardiovascular disease[11] and for dying from cardiovascular disease.[12] The rates of heart disease are 1.5 times higher among First Nations people than among the general Canadian population.[8] In the 2008-2010 RHS[2], a higher proportion of Canadian First Nations males (18 years and older) versus females reported having been diagnosed with heart disease (6.7% and 4.2%, respectively). Tjepkema et al.[12] estimate that compared to non-Aboriginal people, rates of death from cardiovascular disease were 30% higher for First Nations males and 76% higher for First Nations females.

The NIHB pharmacy claims database was used to identify First Nations registered to Atlantic region bands that filled a claim for cardiovascular disease medications in the Atlantic region for the calendar years 2007 to 2011.

It should be noted that diuretics were included with the cardiovascular disease medications as they are therapies used in the treatment of cardiovascular conditions.

Prevalence = number of Atlantic region band members who had at least one claim for a cardiovascular disease drug in a specified calendar year

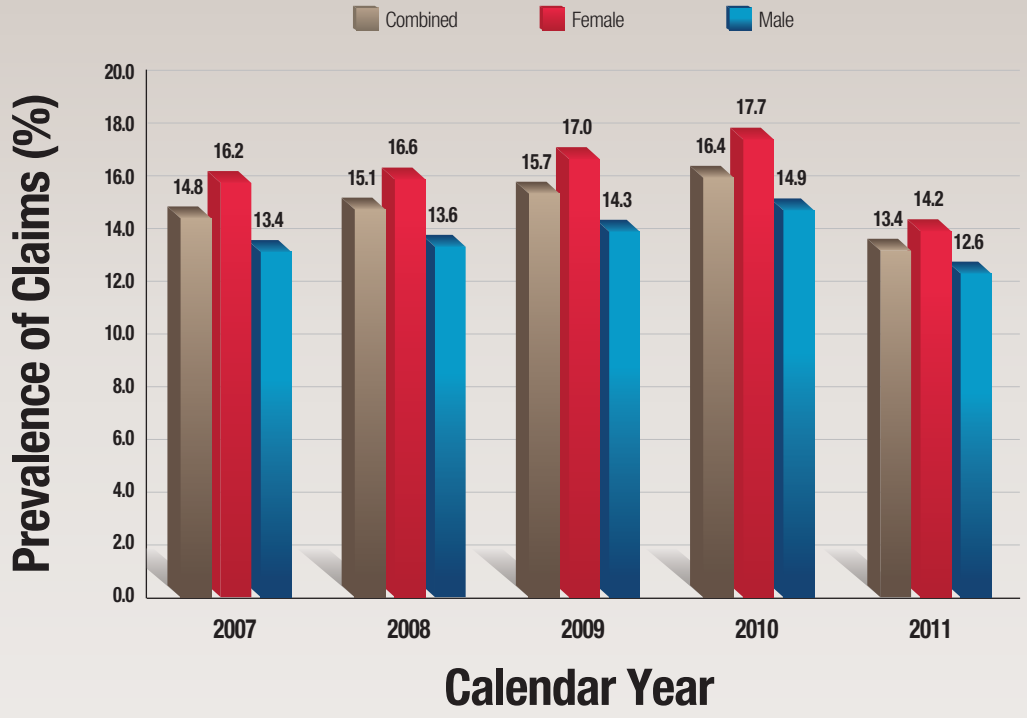
Total band population in the specified calendar year

The prevalence of cardiovascular disease medication claims among Atlantic region First Nations band members who had at least one claim increased by less than 1% year to year from 2007 (14.8%) to 2010 (16.4%; Figure 11). In 2011, the prevalence of claims decreased to 13.4%. The trend was similar among females and males. The prevalence of claims was higher among females than among males for each year with differences of approximately 3%. The difference was approximately 2% for 2011.

It should be noted that while the number of Atlantic region band members who had at least one cardiovascular disease medication claim increased from 2010 to 2011, the prevalence decreased from 16.4% to 13.4%. This is due to the increase in population eligible to access the NIHB program with the establishment in 2011 of the Qalipu Mi'kmaq First Nation Band.

The prevalence of cardiovascular disease medication claims was similar among First Nations band members in New Brunswick, Nova Scotia, and Prince Edward Island (15% - 18%). The rates for these three provinces increased in 2010 and rates were higher among females in all years. The rates among Newfoundland and Labrador First Nations band members were lower compared to the other provinces in each calendar year.

Figure 11. Prevalence of Cardiovascular Disease Medication Claims Among Atlantic Region Band Members by Sex (2007-2011)



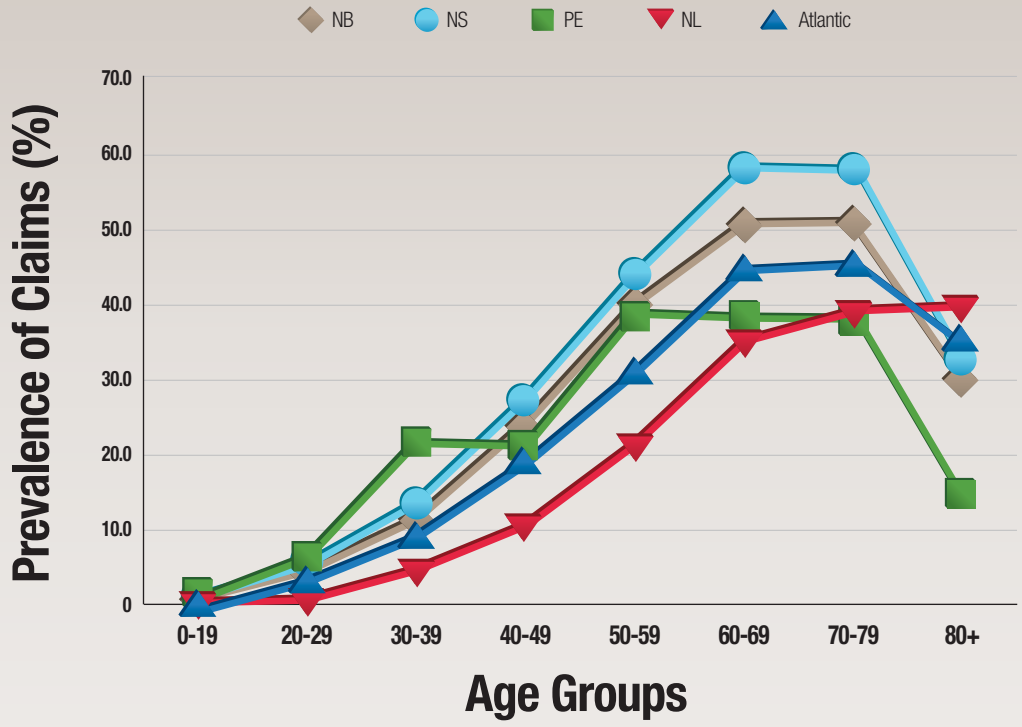
Source: *Non-Insured Health Benefits Pharmacy Claims Database (2007-2011); AANDC Indian Registry System (2007-2011)*

In 2011 the prevalence of cardiovascular medication claims increased with increasing age up to the 70 to 79 age group (Figure 12). The prevalence was lowest among Newfoundland and Labrador band members across age groups up to the 70 to 79 age group. The prevalence decreased in the 80+ age group for all provinces with the exception of Newfoundland and Labrador where the prevalence stayed the same as the 70 to 79 year olds. Newfoundland and Labrador had the highest prevalence compared to the other provinces in the 80+ age group.

With the exception of band members aged 30 to 39 years and 80 years and older, the prevalence of claims was higher among Nova Scotia band members than among the other three provinces. The greatest differences were among the band members aged 60 to 69 years.

For band members aged 30 to 39 years, the prevalence of claims was the highest among the Prince Edward Island band members (21.5%) than the other three provinces (14.6%, 11.7%, and 3.9%).

Figure 12. Prevalence of Cardiovascular Disease Medication Claims Among Atlantic Region Band Members by Age and Province (2011)



Source: *Non-Insured Health Benefits Pharmacy Claims Database (2011); AANDC Indian Registry System (2011)*

4.2.3 Smoking

Smoking is a well-documented risk factor for chronic diseases such as cardiovascular diseases, cancer, and diabetes.[11] Smoking rates are reported to be more than three times higher among First Nations populations than among the general Canadian population.[2,13]

In the 2008-2010 RHS[2], approximately 57% of Canadian First Nations on-reserve aged 18 years and older reported they were current smokers. Forty-three percent (43%) indicated they smoked daily and 13.7% indicated they were occasional smokers. There was no difference in smoking rates between males and females.

In 2011, 17.3% of the general Canadian population aged 15 years and older were current smokers; 13.7% were daily smokers.[13] Smoking rates were higher among males than among females for both current smokers and daily smokers.

The prevalence of daily smoking was higher among Canadian First Nations youth aged 15 to 17 years than among Canadian youth aged 15 to 17 years, 29.6% versus 3.9%, respectively.[2,13]

The prevalence of daily smoking was higher among First Nations females[2] and higher among males in the general Canadian population.[13]

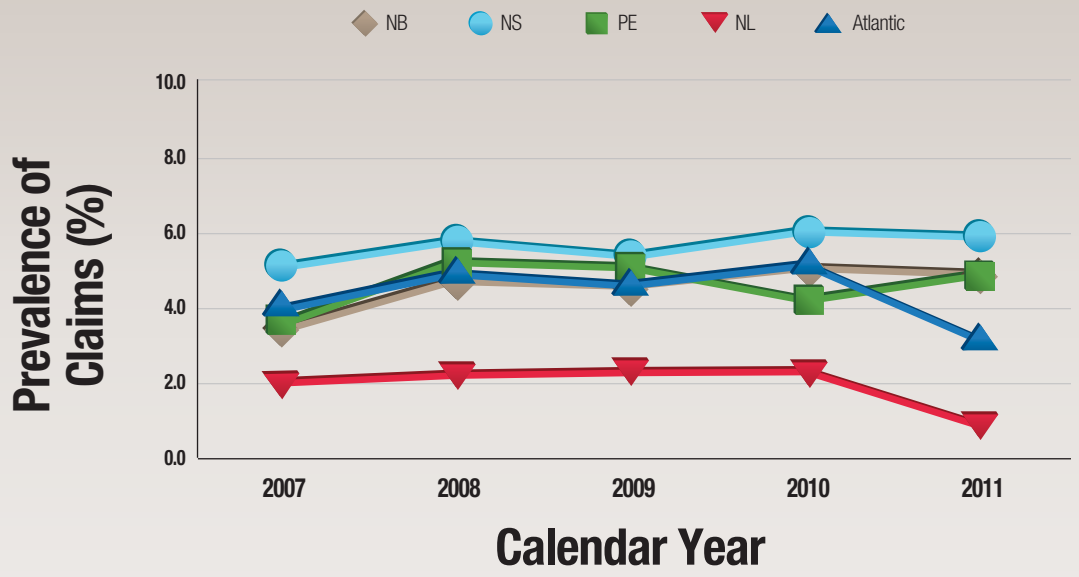
Many individuals use nicotine replacement therapies and medications such as Nicoderm®, Nicorette®, Champix®, and Zyban® to quit smoking. Approximately 30% of Canadian First Nations on-reserve aged 18 years and older made an attempt to quit smoking in the 12 months prior to the 2008-2010 RHS[2]. By comparison, 14.4% of Canadians aged 15 years and older made one attempt to quit smoking in 2011.[13] More females than males attempted to quit smoking in both populations.[2,13]

The prevalence of claims for smoking cessation products (e.g., Nicoderm®, Nicorette®, Champix®, and Zyban®) was the highest among Nova Scotia band members aged 15 years and older from 2007 to 2011 (Figure 13). The prevalence ranged from 5% to 6%. From 2007 to 2009, the prevalence of claims was similar among band members (15 years and older) in New Brunswick, Prince Edward Island, and the Atlantic region. In 2010, the prevalence decreased by approximately 1% in Prince Edward Island.

In Newfoundland and Labrador, the prevalence of claims among band members was stable at approximately 2% from 2007 to 2010. The decrease in prevalence noted in 2011 in Newfoundland and Labrador and the Atlantic region is due to the establishment that year of the Qalipu Mi'kmaq First Nation Band which increased the population eligible to access the NIHB program.

Consistent with previous findings[2,13], a greater percentage of females than males had a claim for a smoking cessation product.

Figure 13. Prevalence of Smoking Cessation Product Claims Among Atlantic Region Band Members Aged 15 Years and Older by Province (2007-2011)



Source: *Non-Insured Health Benefits Pharmacy Claims Database (2007-2011); AANDC Indian Registry System (2007-2011)*

4.3 Maternal Child Health

Maternal and child health data are reported through Teleform; the Canada Prenatal Nutrition Program (CPNP) reports; the Maternal Child Health (MCH) Program reports; CBRT; and immunization coverage reports.

4.3.1 Birth Rate

Currently, birth information for First Nations on-reserve is reported by communities to FNIHB-AR via Teleform, through CPNP reports, and through MCH reports. Starting in 2011-2012 this information will be available through CBRT. Due to reporting differences and inconsistencies between programs and among communities, each report yields different birth rate information. Birth rates received through Teleform reporting are used here as these numbers include all births and not just births for women who are in the CPNP or MCH programs.

The birth rate is defined as the ratio of total live births to population and is calculated by dividing the number of births (numerator) by the population (denominator). The birth rate is expressed as the number of live births per 1,000 population per year.

An average of 26 communities submitted Teleform reports from 2008 to 2011 (Table 4). The number of births ranged from a high of 408 in 2009 to a low of 354 in 2011. The birth rate decreased from 2008 to 2011 (Figure 14). The birth rate was the highest at 19.1 per 1,000 population in 2009 and decreased to 15.9 per 1,000 population in 2011.

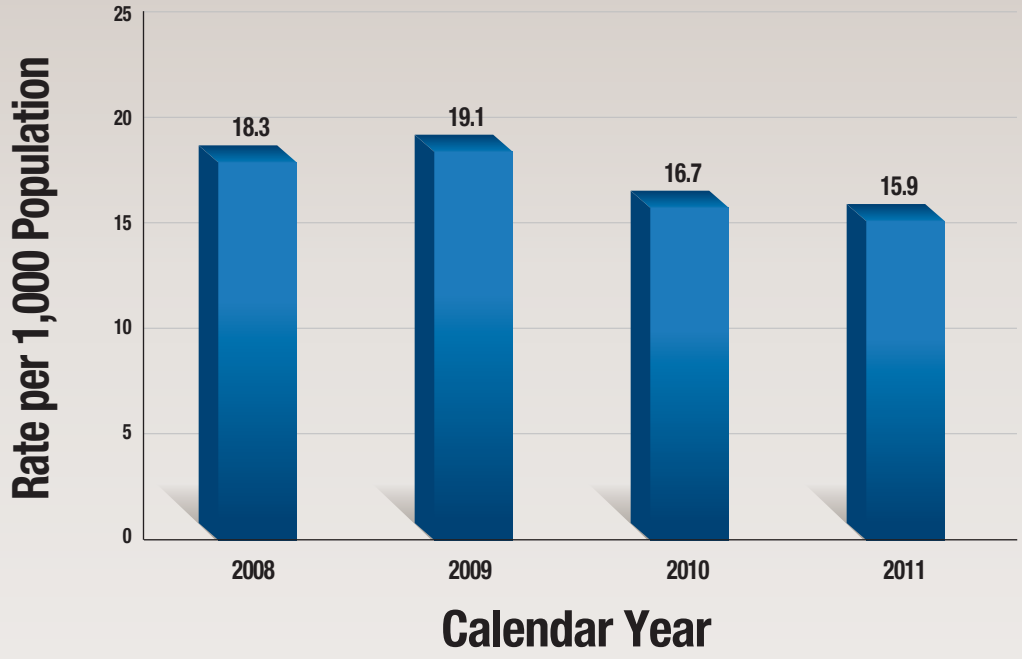
By comparison, the birth rate for the Atlantic provinces overall was approximately 10.0 per 1,000 population from 2008 to 2010.[14] The overall Canadian birth rate was approximately 11.0 per 1, 000 population for the same time period.[14] Data for 2011 are not available for the Atlantic provinces or for Canada.

Table 4. Number of Live Births Among Atlantic Region First Nations On-Reserve (2008-2011)

Calendar Year	Number of First Nations Communities Reporting	Number of Births
2008	27	383
2009	28	408
2010	25	365
2011	26	354

Source: *Atlantic region Teleform community reports (2008-2011); AANDC Indian Registry System (2008-2011)*

Figure 14. Birth Rate for Atlantic Region First Nations On-Reserve (2008-2011)



Source: *Atlantic region Teleform community reports (2008-2011); AANDC Indian Registry System (2008-2011)*

4.3.2 Birth Weight

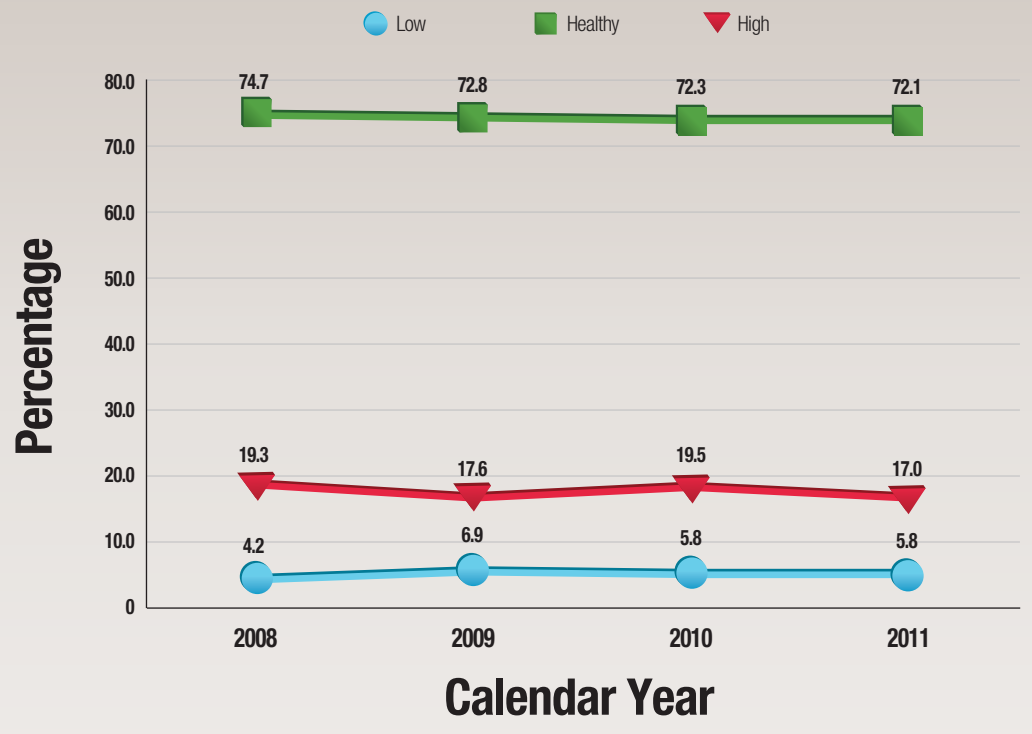
Based on Atlantic region Teleform community reports, the proportion of babies born in the healthy birth weight range (2500g - 4000g or 5lb 9oz – 8lb 11oz) decreased from 74.7% in 2008 to 72.1% in 2011 (Figure 15). By comparison, the proportion of healthy weight babies born in the Atlantic provinces overall, increased slightly from 79.5% in 2008 to 80.7% in 2010.[15] For the same time period, the proportion of Canadian babies born with a healthy weight increased minimally from 82.1% to 82.6%.[15]

Due to risk factors associated with high birth weights (e.g., diabetes, obesity through childhood to adulthood, and childbirth complications)[16], the proportion of Atlantic region First Nations babies born who weighed over 4000g (8lb 11oz) is of concern. The proportion of babies born in 2008 and 2010 who weighed over 4000g (8lb 11oz) was approximately 19%. In 2009 and 2011, the proportion was 17.6% and 17.0%, respectively (Figure 15). These rates are higher than the rates for the Atlantic provinces and Canada.[15]

For both the Atlantic provinces and Canada overall, the proportion of babies born who weighed over 4000g decreased from 2008 to 2010, although the decreases were minimal for the Canadian babies.[15] In the Atlantic provinces, the rate decreased from 14.8% to 13.3%; for Canada overall, the rates decreased from 11.8% to 11.2%.[15]

The proportion of babies who were in the low birth weight category (less than 2500g or 5lb 9oz) ranged between a low of 4.2% in 2008 to a high of 6.9% in 2009. For both 2010 and 2011, the rate was 5.8%. These findings are comparable to the approximately 6% reported for both the overall Atlantic provincial and Canadian population for 2008 to 2010.[15]

Figure 15. Proportion of Live Births for Atlantic Region First Nations On-Reserve by Birth Weight Category (2008-2011)



Source: *Atlantic region Teleform community reports (2008-2011)*

4.3.3 Risk Behaviours

Maternal cigarette smoking during pregnancy is associated with many negative health effects including stillbirths and low birth weight babies, sudden infant death syndrome, attention deficit hyperactivity disorder, some childhood cancers, and increased risk of asthma.[17]

Exposure to alcohol during pregnancy is linked with fetal alcohol spectrum disorder (FASD) which is a range of conditions that includes cognitive, behavioural, neurodevelopmental, physiological, or physical impairments that effect children over their lifespan.[17]

Currently, there is not enough evidence to determine: (1) how even low levels of alcohol consumption during pregnancy will affect the fetus or (2) a safe cut-off for low level drinking, suggesting that there is no safe amount of alcohol consumption during pregnancy.[18] Therefore, the clinical guidelines advise women who are or may become pregnant to not drink at all.

It is not known how many Canadians are living with FASD as FASD is difficult to diagnose and is often under reported.[19] It is estimated that nine out of every 1,000 Canadian babies[19], approximately 1% of the population[18], are born with FASD each year. Research suggests that the incidence of FASD is higher in Aboriginal populations, and in rural, remote and northern communities.[20]

FNIHB-AR receives information regarding pre-natal smoking and substance use from the community CPNP reports. The most commonly reported risk behaviours among the 2008-2009, 2009-2010, and 2010-2011 CPNP participants in the Atlantic region was smoking followed by using drugs, alcohol, or solvents (Table 5). The rates for pre-natal smoking among CPNP participants decreased across the three fiscal years. The rates of pre-natal substance use decreased by over 50% from 2008-2009 to 2009-2010 and remained at approximately 8% in 2010-2011.

Table 5. Pre-Natal Smoking and Substance Use Among CPNP Participants (2008-2011)

Fiscal Year	Number of First Nations Communities Reporting	Number of CPNP Participants	Smoking (%)	Drugs/Alcohol/ Solvents (%)
2008-2009	18	500	41.4	21.0
2009-2010	19	491	33.0	8.1
2010-2011	8	200	31.5	7.5

Source: *Canada Prenatal Nutrition Program Atlantic regional reports (2008-2011)*

The percentage of First Nations on-reserve **mothers who initiated breastfeeding** increased from 44.1% in 2008-2009 to 60.3% in 2010-2011 (Figure 16).

The percentage of **babies who were breastfed** beyond six months also increased from 9.9% in 2008-2009 to 13.2% in 2010-2011.

Based on findings from the Canadian Tobacco Use Monitoring Survey (CTUMS) 2011[13], 6.9% of Canadian women aged 20 to 44 years who had been pregnant in the previous five years reported smoking during pregnancy. Of the Canadian women who gave birth five years prior to the 2005 Canada Community Health Survey (CCHS)[17], 10.5% reported drinking alcohol during pregnancy; 1.1% reported drinking more than once a week.

4.3.4 Breastfeeding

Due to the benefits for infants' growth, immunity, and cognitive development, breastfeeding is promoted by Health Canada (in alignment with the World Health Organization guidelines) and is internationally recognized as the natural and preferred method of feeding infants.[21,22]

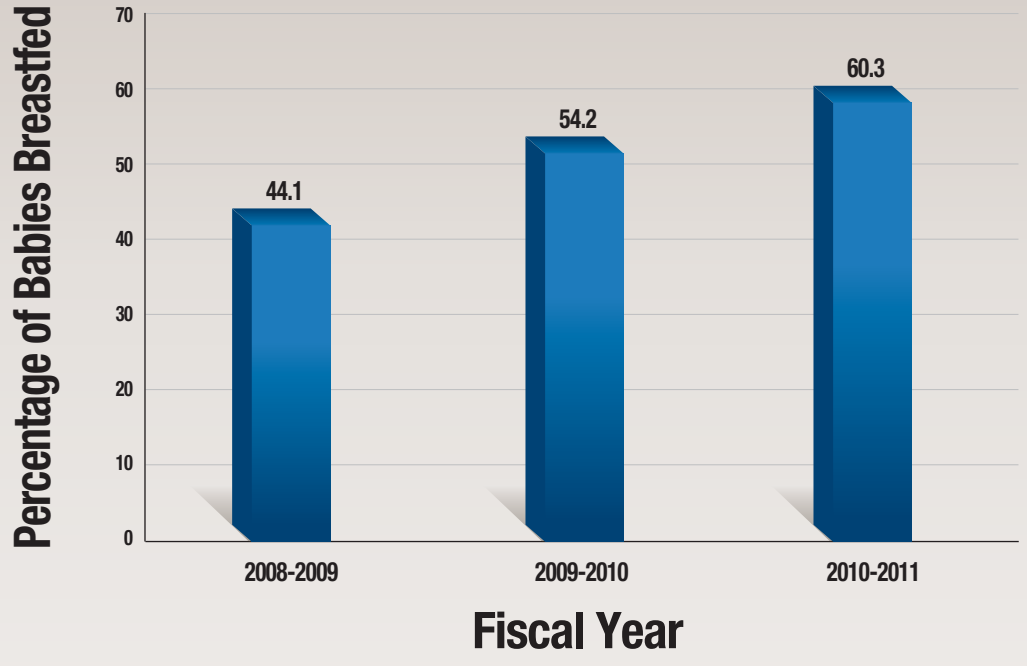
"Exclusive breastfeeding during the first six months is accepted as the nutrition standard for infants" and is considered an international public health recommendation.[21,22] Furthermore, it is recommended that breastfeeding continue for two years and beyond even if the child is being fed solid food.[22]

Based on CPNP Atlantic reports, the percentage of First Nations on-reserve mothers who initiated breastfeeding increased from 44.1% in 2008-2009 to 60.3% in 2010-2011 (Figure 16). The percentage of babies who were breastfed beyond six months also increased from 9.9% in 2008-2009 to 13.2% in 2010-2011.

Based on CCHS[23] data, in 2009-2010, 87.3% of women aged 15 to 55 years who gave birth in the previous five years reported initiating breastfeeding and 25.9% breastfed exclusively for six months or more.

It is encouraging that the breastfeeding initiation and duration rates among First Nations mothers appear to be increasing. There is still need for programs to promote breastfeeding and support mothers to continue breastfeeding beyond six months.

Figure 16. Percentage of Atlantic Region First Nations On-Reserve Mothers That Initiated Breastfeeding (2008-2011)



Source: *Canada Prenatal Nutrition Program Atlantic regional reports (2008-2011)*

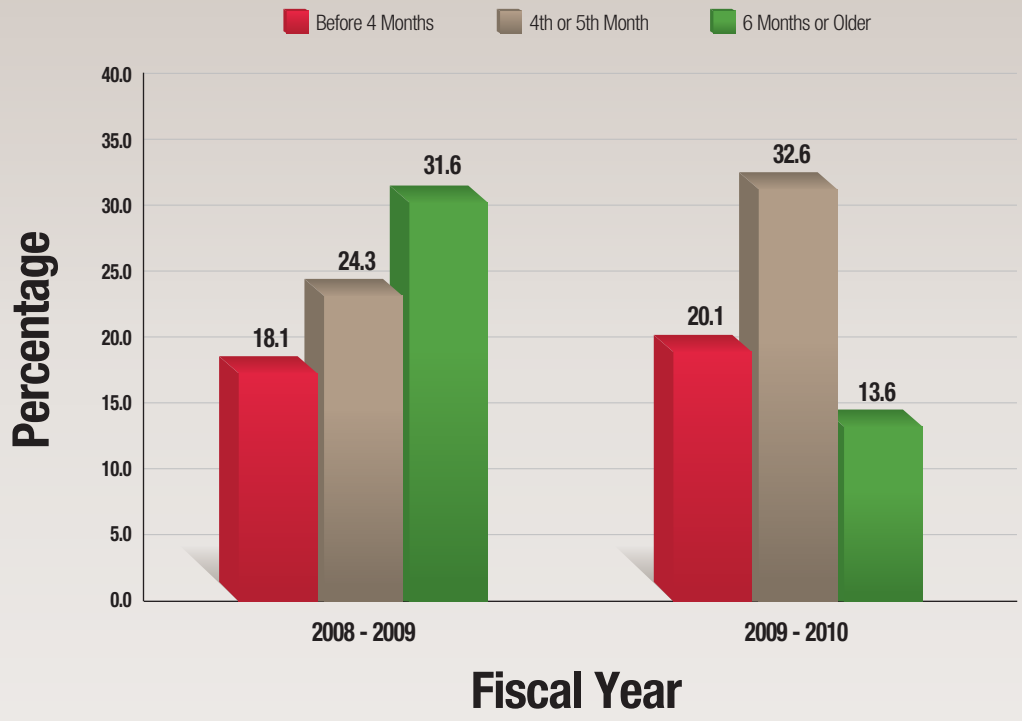
4.3.5 Introduction to Solid Food

It is recommended that solid foods be introduced at six months of age with continued breastfeeding for up to two years and beyond.[21,22] If the child is formula fed rather than breastfed, continue with formula feeding in conjunction with solid foods. Delaying the introduction of solid food was found to reduce the likelihood of being obese or overweight at age 10.[24]

Currently, the CPNP Atlantic reports are the only source of data for the age at which babies are introduced to solid food. In 2010-2011, 25% of the communities that submitted CPNP reports did not include any information on introduction to solid food. These omissions represent 72.8% of the babies born in the program for that fiscal year. Therefore, only the data for fiscal years 2008-2009 and 2009-2010 are included in this report.

The percentage of babies who were introduced to solid food before six months of age increased from 42.4% in 2008-2009 to 52.7% in 2010-2011 (Figure 17). Conversely, the percentage of babies who were not introduced to solid food until six months of age or older decreased from 31.6% to 13.9%.The fact that there is an increase in the percentage of infants who are being introduced to solid foods before six months of age, emphasizes the need for continued programming to promote the importance of waiting to introduce solid foods to infants until at least six months of age.

Figure 17. Percentage of Atlantic Region First Nations Babies On-Reserve Introduced to Solid Foods by Age (2008-2011)



Source: *Canada Prenatal Nutrition Program Atlantic regional reports (2008-2011)*

4.4 Immunizations

"Immunization has saved the lives of more babies and children than any other medical intervention in the last 50 years".[25] Immunizations carried out as recommended in provincial schedules provide protection against 13 vaccine-preventable diseases.

The immunization coverage rate is the number of individuals in the community who were immunized over the number of individuals who should have been immunized. All 33 Atlantic First Nations communities are required to report immunization coverage, and although the number of communities reporting varies, there was an increase from 2008 to 2011 (Table 6).

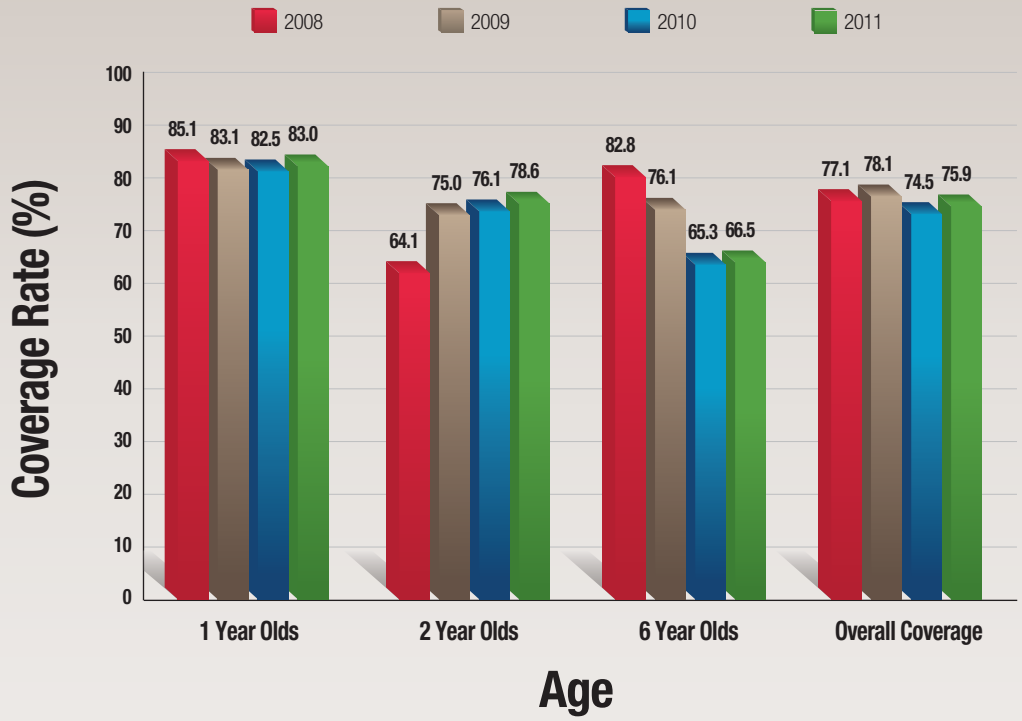
Table 6. Number of First Nations On-Reserve Communities Reporting Immunization Coverage Rates

Reporting Year	Number of Communities Reporting
2008	21
2009	26
2010	26
2011	30

The immunization coverage rate was the highest at one year; and declined at two years and again at six years (Figure 18). The coverage rate was approximately 83% among one-year-olds from 2009 to 2011. There was a steady increase in the coverage rate among two-year-olds from 2008 (64.1%) to 2011 (78.6%). Conversely, there was a steady decline in the immunization coverage rate among six-year-olds from 2008 (82.8%) to 2010 (65.3%). In 2011, the rate increased slightly to 66.5%.

The overall coverage rate (one, two, and six years combined) was fluctuated between 75% and 78% from 2008 to 2011. In 2011, the rate was approximately 76%.

Figure 18. Immunization Coverage Rates for Atlantic Region First Nations On-Reserve by Age and Year (2008-2011)



Source: *Atlantic region community immunization coverage rate reports (2008-2011)*

Coverage rates may not be as low as they are reported here as children who are immunized off-reserve are not well represented in these data.

Communities should be encouraged to have children immunized and to improve community reporting of immunization.

The percentage of Canadian First Nations on-reserve who reported being **physically inactive** increased with age.[2]

Approximately 46% of people 18 years and older reported being inactive versus 28.1% of 12 to 17 year olds and 17.6% of children 11 years old and younger.

Section 5: Lifestyle and Coping

5.1 Physical Activity

The benefits of regular physical activity are well known to most of the population. Being physically active contributes to the mental, physical, and emotional wellbeing of the individual, and therefore society as a whole.[26-28] Improvements in self-esteem, body image, academic performance in school, reduced substance abuse, improved parental relationships, and decreased levels of anger and stress in young people are also associated with physical activity.[27]

Globally, physical inactivity is recognized as a major health concern[29] and has been recognized as the main contributor to rising public health costs.[30]

Over 50% of the Canadian population and nearly 75% of Aboriginals living on-reserve across the country self-report as being physically inactive.[31] In 2012, only 7% of Canadian children and youth were meeting the new Canadian Physical Activity Guidelines of at least 60 minutes of moderate to vigorous physical activity per day.[32]

The percentage of Canadian First Nations on-reserve who reported being physically inactive increased with age.[2] Approximately 46% of people 18 years and older reported being inactive versus 28.1% of 12 to 17 year olds and 17.6% of children 11 years old and younger.

Conversely, the percentage of Canadian First Nations on-reserve who reported being physically active decreased with age.[2] Twenty-five percent (25%) of the population aged 18 years and older reported being physically active versus 49.3% of 12 to 17 year olds and 62.4% of children 11 years old and younger.

At FNIHB, most physical activity support comes though the Aboriginal Diabetes Initiative. A staff person is in place at FNIHB to help support First Nations communities across Atlantic Canada in providing effective physical activity and recreational opportunities for their community members. The primary project implemented by FNIHB is the Community Physical Activity Incentive Fund. This fund is a shared project between FNIHB-AR and the head office in Ottawa and it is our hope that these funds will provide a starting point for communities to secure additional funding opportunities from other potential sources.

In the Atlantic Region, communities are able to apply for funding up to $5,000 for sustainable physical activity projects in their community. Some examples of projects include trail development, training for volunteers and staff, equipment purchases, playground development and healthy schools policy support. As of the 2012-2013 fiscal year 69 projects have been funded and all eligible communities have received funding at least one time.

Section 6: Health Care Services

6.1 Dental Services

Oral health (health of your teeth and mouth) has an effect on overall health. Poor oral health has been associated with risk of diabetes; heart disease; premature low birth weight babies; and behavioural and developmental problems in children.[33] Early prevention oral health care practices will lead to better overall health through the lifespan.

Oral health activities such as proactive disease prevention, oral health promotion, and dental treatment services are provided by FNIHB to First Nations communities by Dental Therapists and community Children's Oral Health Initiative (COHI) aides through the Children's Oral Health Initiative.

6.1.1 Children's Oral Health Initiative

The Children's Oral Health Initiative (COHI) is a community-based service that provides dental preventive services to on-reserve First Nations children from birth to seven years of age. Currently, COHI is available in 32 First Nations communities in the Atlantic region.

The proportion of children from birth to seven years of age who received dental screening increased from the 2008-2009 (22.7%) school year to the 2010-2011 (34.7%) school year (Table 7). The number of preventive services provided also increased for the same time periods. The increases are likely due to the increase in the number of communities providing COHI services (23 in 2008-2009 and 32 in 2010-2011).

Table 7. Proportion of First Nations On-Reserve Children Screened and Number of Services Provided by COHI (2008-2011)

School Year	Proportion of Children Birth to 7 Years Screened (%)	Number of Prevention Services Provided
2008-2009	22.7	2668
2009-2010	26.3	2823
2010-2011	34.7	3533

Source: *FNIHB Dental Database Service and Productivity Reports (2008-2011); Status Verification System population estimates (2009-2011)*

6.1.2 Dental Therapy Services

Currently, 10 dental therapists provide dental services to 17 First Nations communities. The proportion of Atlantic region First Nations on-reserve who received dental services increased from 2008-2009 to 2010-2011 (Table 8). In 2008-2009 and 2009-2010, a greater proportion of children aged seven years and younger received diagnostic services than other dental services. In 2010-2011, a greater percentage received prevention services. For First Nations children eight years of age and older, approximately 24% received prevention dental services (Table 8).

Table 8. Percentage of Atlantic Region First Nations On-Reserve Band Members who Received Dental Services Provided by Dental Therapists (2008-2011)

Dental Services Provided	7 Years of Age and Younger			8 Years of Age and Older		
	2008-2009	2009-2010	2010-2011	2008-2009	2009-2010	2010-2011
Diagnostic Dental Exams & X-Rays	17.7%	18.4%	22.0%	13.3%	14.7%	16.8%
Prevention Scaling, Polishing, Sealants, Fluoride, Oral Hygiene Instruction	11.5%	18.3%	23.5%	21.7%	23.5%	24.1%
Restoration Fillings	3.1%	5.0%	4.9%	3.3%	4.4%	4.2%
Surgical Extractions	2.6%	3.3%	4.0%	1.5%	3.1%	3.4%

Source: *FNIHB Dental Database Service and Productivity Reports (2008-2011); Status Verification System population estimates (2009-2011)*

In the 12 months prior to the 2008-2010 RHS[2], 56.5% of Canadian First Nations 18 years and older reported receiving dental care. Approximately 76% of Canadian First Nations youth, 12 to 17 years of age, received dental care with check-ups and cleanings the most commonly reported treatments. Sixty-nine percent (69%) of parents and caregivers of children aged 0 to 11 years, reported their children received some dental care in the 12 months prior to the 2008-2010 RHS.[2]

51%

Approximately **51%** of people accessing home and community care were over the age of 55 years.

6.2 Home and Community Care

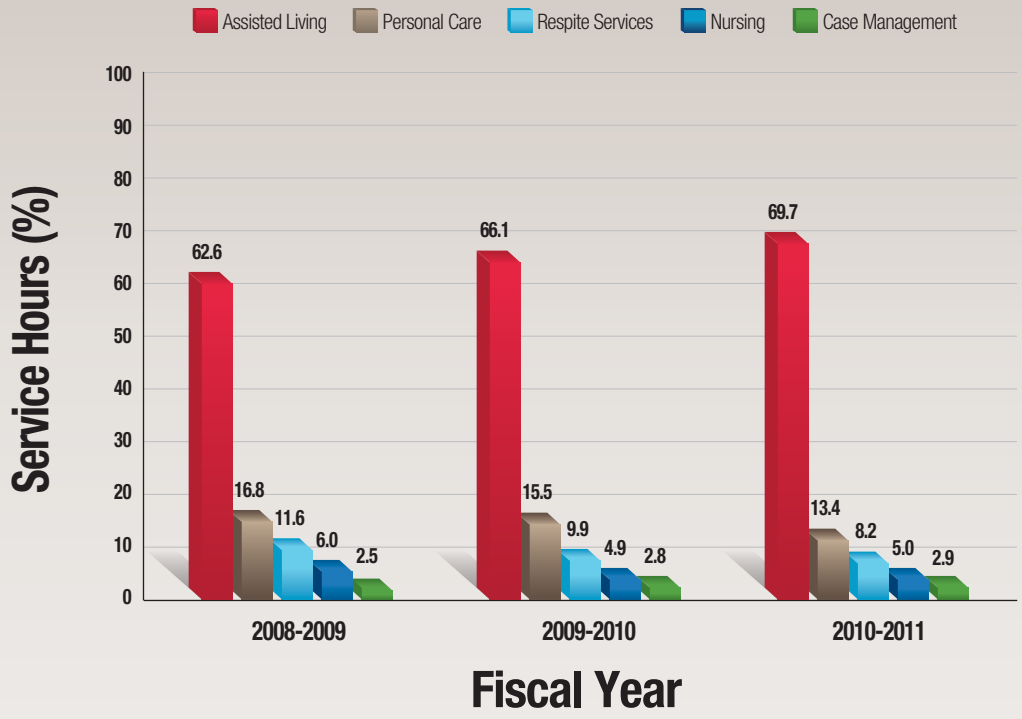
The Home and Community Care (HCC) program is a mandatory program provided to all 33 Atlantic First Nations communities.

The HCC objectives include building capacity in First Nations communities to develop and deliver effective home care services; assisting First Nations with chronic and acute illnesses to maintain optimum health, well-being and independence in their homes and communities; develop assessment processes that determine client service needs; and monitor care and services and develop measurable objectives and indicators.

The proportion of Atlantic region First Nations on-reserve who accessed home and community care increased from year to year; 5.7% (2008-2009), 6.0% (2009-2010), and 6.7% (2010-2011). Almost twice as many females as males used home and community care services in each fiscal year. Approximately 51% of people accessing home and community care were over the age of 55 years.

The greatest percentage of hours was provided for assisted living followed by personal care and respite services for each fiscal year (Figure 19). The least amount of hours was provided for professional therapies at less than 1% for each fiscal year (not included in Figure 18). The percentage of hours provided for assisted living increased from 2008-2009 (62.6%) to 2010-2011 (69.7%) while the hours provided for other service types decreased in each fiscal year.

Figure 19. Percentage of HCC Hours by Service Type (2008-2011)



Source: *eSDRT - Atlantic Region (2008-2011)*

In 2008-2009 and 2010-2011, diabetes was most often reported as the primary reason for home care services; it was second after skin and subcutaneous conditions in 2009-2010 (Table 9).

While the category "Other" is included in the top six primary reasons, there are no details available as to what this category includes.

Table 9. The Top Six Primary Reasons for Home Care Services (2008-2011)

	Number of Visits		
Primary Reason for Home Care Services	**2008-2009**	**2009-2010**	**2010-2011**
Diabetes	308	276	301
Skin and Subcutaneous Condition	228	304	286
Musculoskeletal Condition	178	241	287
Other*	176	188	300
Cardiovascular Disease/Heart Circulatory	164	168	185
Frail Elderly	154	117	78

** There are no details about what this category includes*
Source: *eSDRT - Atlantic Region (2008-2011)*

6.3 Environmental Health Inspections

Environmental health services are provided by Environmental Health Officers (EHOs) under the Environmental Public Health Program. Inspections of facilities are carried out annually, biannually, or by request. Housing facilities were the most frequently inspected in all three fiscal years (Table 10).

Table 10. Number of Inspections by Facility Type and Year (2008-2011)

Facility Type	Number of Inspections		
	2008-2009	2009-2010	2010-2011
Housing	256	219	178
Community Wastewater Systems	N/R*	5	0
On-site Sewage Systems	7	20	10
Community Care Facilities	33	43	33
Solid Waste Disposal Sites	1	4	3
Health Facilities	4	7	9
Playground	1	8	0
Pool	3	5	5
General Facilities	11	10	8
Food Facility	44	35	73
TOTAL	360	356	319

**This facility type was added after 2008-2009*
Source: *Environmental Health Information System (EHIS) reports (2008-2011)*

6.4 National Native Alcohol and Drug Abuse Program

The National Native Alcohol and Drug Abuse Program (NNADAP) encourages and supports First Nations and Inuit people to overcome alcohol and drug abuse through both prevention and treatment services.

Prevention services address community programs (e.g., education, life skills workshops, self-help groups) and direct client services (e.g., crisis intervention, counselling, support and follow-up, referrals to treatment centres).

Currently there are six NNADAP treatment centres in the Atlantic region; one of which is a youth treatment centre. Clients who need direct treatment interventions are taught about the effects of alcohol and alcoholism, self-awareness, life skills, and how to access support systems.

The number of individuals by age and sex referred to a NNADAP or youth solvent abuse treatment centre is reported through CBRT. The total number of band members referred for treatment services decreased from 2008-2009 to 2010-2011 (Table 11).

The 2008-2010 RHS2 reported that approximately 6% of Canadian First Nations youth, 12 to 17 years old, indicated they had sought treatment for alcohol abuse or addiction at some point in their lives.

Table 11. Number of First Nations On-Reserve Band Members Referred to Treatment Centres by Age and Sex (2008-2011)

	Under 24 Years of Age		24 Years of Age and Older		
Fiscal Year	Males	Females	Males	Females	Total
2008-2009	347	400	255	153	1155
2009-2010	110	273	149	241	773
2010-2011	128	114	147	167	556

Source: *Community Based Reporting Template Atlantic regional reports (2008-2011)*

In 2008-2009, four NNADAP treatment centres submitted annual reports; one centre was a non-residential centre and the youth centre did not report. In 2009-2010 and 2010-2011, all six treatment centres submitted reports although there was some inconsistency in the information that was submitted. For example, two centres did include the ages of the individuals who applied or were admitted to their programs. Therefore, the numbers of clients will not be reported here by age or sex.

The number of applications received by the treatment centres decreased from 2008 to 2011 (Table 12). The number of individuals admitted to in-patient programs increased while the number of admissions to out-patient programs decreased for the same time period. The percentage of clients who completed treatment decreased in 2009-2010 to 66.3% and increased to 76.5% in 2010-2011.

Table 12. Number of Atlantic Region Treatment Centre Clients (2008-2011)

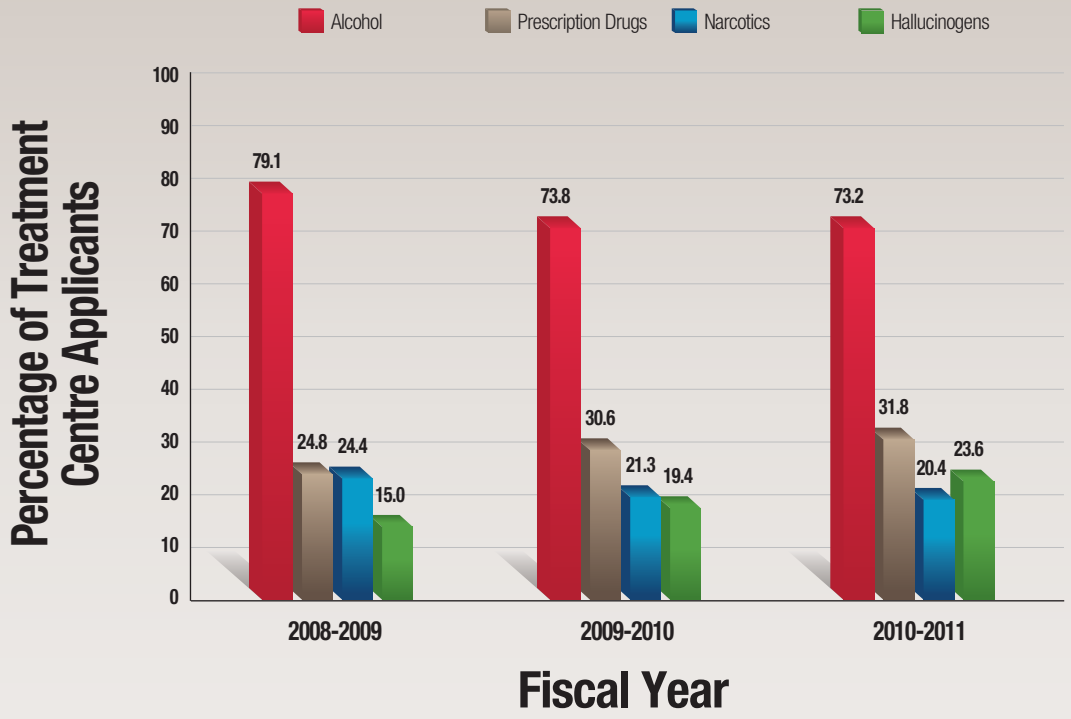
Fiscal Year	Number of Applications	Number Admitted To In-patient Programs	Number Admitted To Out-patient Programs	Percentage of Clients Who Completed Treatment
2008-2009	234	155	63	73.4
2009-2010	212	168	31	66.3
2010-2011	210	176	20	76.5

Source: *NNADAP Treatment Centres annual reports (2008-2011)*

Four treatment centres reported information regarding the types of substances clients indicated they abused. For all three fiscal years, alcohol was the most common primary substance abused with prescription drugs (e.g., codeine, oxycodone, Valium®, and Dilaudid®) the second most common. In 2008-2009, approximately 79% of treatment centre applicants indicated that they primarily abused alcohol (Figure 20).

This dropped to approximately 74% in 2009-2010 and 73% in 2010-2011. The proportion of applicants primarily abusing prescription drugs and hallucinogens (e.g., LSD) increased over the three fiscal years while the reported use of narcotics (e.g., opium, cocaine, and morphine) decreased.

Figure 20. Primary Substances Abused Among Atlantic Region Treatment Centre Applicants by Substance (2008-2011)



Source: *NNADAP Treatment Centres annual reports (2008-2011)*

Approximately 35% of Canadian First Nations on-reserve, 18 years and older, reported they did not drink alcohol in the 12 months prior to the 2008-2010 RHS.[2] Almost two-thirds of those who reported drinking alcohol in the 12 months prior to the 2008-2010 RHS[2] engaged in heavy drinking (i.e., 5 or more drinks in one sitting at least once a month for the past 12 months). More than 10% of Canadian First Nations on-reserve reported using cannabis almost daily or daily and 7.8% reported using cocaine/crack.[2]

Section 7: Physical Environment

7.1 Water Quality

Environmental health officers and community based water monitors regularly test water quality by chemical or bacteriological analysis of water samples. The number of water samples tested, both chemical and bacterial, increased across the three fiscal years (Table 13). Regarding chemical samples, the proportion found to be unsatisfactory increased to a high of 20% in 2009-2010. In 2010-2011, the proportion decreased to 13.2%. There was little difference in the proportion of bacterial samples found to be unsatisfactory from 2008-2011. The rate was approximately 1% for each fiscal year. An unsatisfactory sample means that the results did not fall within acceptable limits based on the Canadian Drinking Water Quality Guidelines.[34]

Table 13. The Number of Water Samples Tested and Percentage of Unsatisfactory Samples by Type (2008-2011)

	Chemical		Bacterial	
Fiscal Year	Number of Samples	Unsatisfactory (%)	Number of Samples	Unsatisfactory (%)
2008-2009	240	14.6	8442	1.4
2009-2010	360	20.0	8645	0.8
2010-2011	363	13.2	8661	1.1

Source: *Atlantic region WaterTrax reports (2008-2011)*

Another indicator of water quality is a Boil Water Advisory (BWA) or Do Not Consume (DNC) advisory. These are recommended by an Environmental Health Officer (EHO) for the following reasons:

- Significant deterioration in source water quality
- Equipment malfunction during treatment or distribution
- Inadequate disinfection or disinfectant residuals
- Unacceptable microbiological quality
- Unacceptable particle counts
- Operation of the system would compromise public health

There were more advisories set and lifted in 2008-2009 than in subsequent years; the fewest occurred in 2009-2010 (Table 14).

Table 14. Number of Boil Water and Do Not Consume Advisories Set and Lifted in Atlantic Region First Nations Communities

Fiscal Year	Number of Communities	Number of BWA/DNC Set During the Fiscal Year	Number of BWA/DNC Lifted During the Fiscal Year
2008-2009	11	16	10
2009-2010	9	13	6
2010-2011	10	15	7

Source: *Atlantic region WaterTrax reports (2008-2011)*

The percentage of inspected houses with **no mold** increased from 43.6% in 2008-2009 to 58.7% in 2010-2011 (Figure 21).

The percentage of houses where **extensive amounts of mold** were detected decreased from 6.6% in 2008-2009 to 2.5% in 2010-2011.

7.2 Housing

7.2.1 Mold

Breathing in large amounts of the spores released by mold, is associated with a number of health risks including:

- Eye, nose, and throat irritation
- Coughing and phlegm build-up
- Wheezing and shortness of breath
- Symptoms of asthma
- Allergic reactions [35]

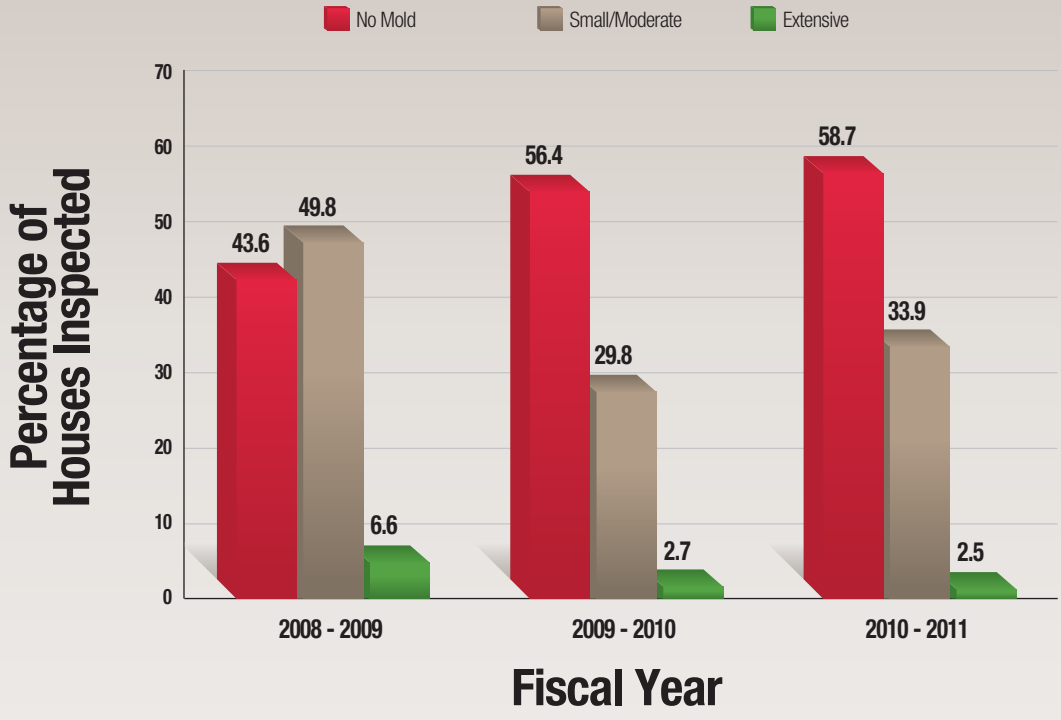
The extent of mold present is categorized as:

- **Small**: one to three patches of mold each less than 1 square metre (10 square feet)
- **Moderate**: more than three patches each smaller than 1 square metre (10 square feet) or one or more isolated patches each larger than 1 square metre (10 square feet) but smaller than 3 square metre squared (32 square feet)
- **Extensive**: one or more patches at least one of which is greater than 3 square metres (32 square feet)

Housing inspections are completed by EHOs upon request. The number of houses inspected for mold decreased from 2008-2009 to 2010-2011 (243, 188, and 121, respectively).

The percentage of inspected houses with no mold increased from 43.6% in 2008-2009 to 58.7% in 2010-2011 (Figure 21). The percentages of houses where small/moderate amounts of mold were detected dropped by 20% from 2008-2009 (49.8%) to 2009-2010 (29.8%); the rate increased to 33.9% in 2010-2011. The percentage of houses where extensive amounts of mold were detected decreased from 6.6% in 2008-2009 to 2.5% in 2010-2011.

Figure 21. Percentage of Inspected Houses With Evidence of Mold (2008-2011)



Source: *Environmental Health Information System (EHIS) report (2008-2011)*

The high school graduation rate was **higher** among Atlantic region First Nations students living on-reserve than among their First Nations on-reserve peers in other regions and in Canada overall (Figure 22).

The graduation rate for Atlantic region First Nations on-reserve was approximately **twice the rate** reported for the overall Canadian First Nations on-reserve students.

Section 8: Lifelong Education

8.1 Education Levels

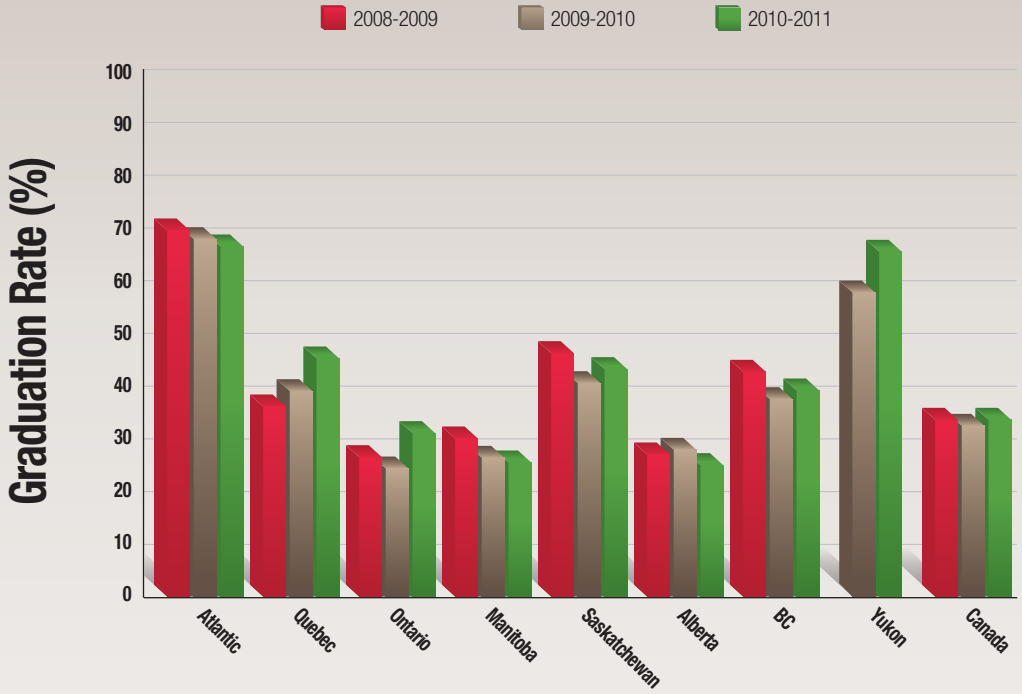
The impact of education as a key determinant of health is well documented.[2,36] Better educated individuals are more likely to have the knowledge and financial resources to access health care and make informed decisions about their health.[36] For example, Canadians who did not complete high school are almost twice as likely to report fair or poor health.[36] First Nations adults who graduated high school reported experiencing less psychological distress, compared to those who did not graduate high school.[2]

The high school graduation rate was higher among Atlantic region First Nations students living on-reserve than among their peers in other regions and in Canada overall (Figure 22). The graduation rate of Atlantic region First Nations on-reserve was approximately twice the rate for the overall Canadian First Nations on-reserve students.

Graduation rates in the Atlantic region decreased from 73% in 2008-2009 to 67.6% in 2010-2011. The graduation rate among the general Canadian population increased from 74.5% in 2008-2009 to 78.3% in 2009-2010.[37]

The average age at graduation in each fiscal year was 19. The school drop-out rate (students who withdrew) decreased among Atlantic region First Nations students from 11.2% in 2008-2009 to 6.8% in 2010-2011.[38]

Figure 22. First Nations On-Reserve High School Graduation Rate by Region (2008-2011)



Source: *AANDC; National Nominal Roll database as of census date of September 30 (2008-2011)*

The 2008-2010 RHS[2] reported that among First Nations on-reserve people aged 18 years and older:

- 39.9% had less than a high school education.
- 9.8% had a high school education.
- 22.5% had some college or university.
- 18.8% had a college diploma or certificate.
- 3.6% had a university degree.
- 1.3% had a graduate or professional degree.
- 4.1% had an "other" level of education such as upgrading or specific training.

Furthermore, 87.7% of First Nations youth on-reserve aged 12 to 17 years reported they were currently attending school at the time of the survey.[2]

Section 9: Mental and Emotional Health

Atlantic Chiefs and First Nations communities identified mental health and addictions as priority health issues. Currently, there is no access to mental health data or any formalized means to collect mental health or addiction data in Atlantic region First Nations communities.

In the absence of addictions data, Health Canada's NIHB pharmacy claims database was used to identify First Nations (on- and off-reserve) who had claims for medications that have the potential for abuse or misuse: benzodiazepines and opioids. Information regarding the percentage of claims for methadone, an opioid that has been used to help treat opioid dependence, was also available from the NIHB database.

9.1 Benzodiazepine, Opioid, and Methadone Claims

Benzodiazepines can be useful for short term treatment of anxiety, short term treatment of insomnia, and as add-on maintenance therapy for managing seizure disorders.[39] Some benzodiazepines used for short term treatment of anxiety are: alprazolam (Xanax®), diazepam (Valium®), lorazepam (Ativan®), oxazepam (Serax®), and bromazepam (Lectopam®).[39]

Opioid analgesics can be important therapeutic options for treating pain.[40] Some opioids used to treat certain forms of moderate to severe pain are: Percocet®/Endocet®, oxycodone, and Dilaudid® (hydromorphone). Tylenol 1, 2 and 3 are used to treat certain forms of mild to moderate pain. While there is a clinical role for benzodiazepines and opioids in certain health conditions, there is a potential for abuse and misuse of these medications, with the resulting risk of addiction.

Misuse/abuse of benzodiazepines and or opioids occurs when these drugs are regularly taken to alter the mood, emotion or state of consciousness and not for their intended medical purposes.[41,42] Addiction can result from benzodiazepine and /or opioid abuse/misuse and is characterized by the presence of the 4 Cs: craving, loss of control over use, compulsion to use and use despite consequences.[43]

Health Canada's Non-Insured Health Benefits (NIHB) pharmacy claims database was used to identify First Nations registered to Atlantic region bands who had benzodiazepine and opioid claims in the Atlantic region for the calendar years 2007 to 2011.

It should be noted that this section does not report on "abuse" or "misuse of" or "addiction to" benzodiazepine or opioid medications. It only reports on the proportion of people who filled at least one claim. There is no way to determine: (1) the reason for prescribing the medications, (2) if the medications were used as prescribed, or (3) if the medications were used by the person they were prescribed to.

The proportion of Atlantic region band members who had a benzodiazepine, opioid, or methadone claim in a specified year was calculated as:

$$\textbf{Prevalence} = \frac{\text{number of Atlantic region band members who had at least one claim for a medication of interest in a specified calendar year}}{\text{Total band population in the specified calendar year}}$$

9.1.1 Benzodiazepine Medication Claims

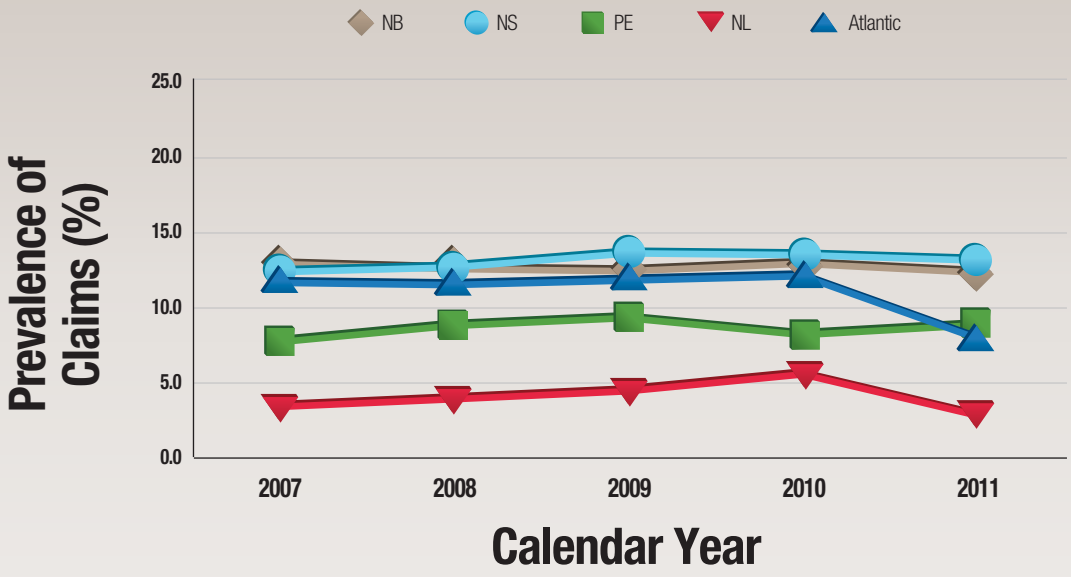
The prevalence of benzodiazepine claims among First Nations band members aged 15 years and older who had at least one benzodiazepine claim was relatively stable across the five years for New Brunswick, Nova Scotia, and Prince Edward Island (Figure 23).

The prevalence of claims was the lowest among Newfoundland and Labrador band members and highest among Nova Scotia and New Brunswick band members. The prevalence was higher among females than among males for all four provinces and for each year, ranging from 2% to 4% in the difference.

It should be noted that while the number of band members in Newfoundland and Labrador who had at least one benzodiazepine claim increased in 2011, the prevalence decreased. The same trend was noted for the Atlantic region overall. This is due to the increase in population eligible to access the NIHB program with the establishment in 2011 of the Qalipu Mi'kmaq First Nation Band.

This finding is consistent with previous research that shows benzodiazepine use is typically higher among females than males.[44,45] The reasons given for higher benzodiazepine use in females include more anxiety in females, physicians more likely to prescribe benzodiazepines to females, and a preference for benzodiazepine use over alcohol among females.[44,45]

Figure 23. Prevalence of Benzodiazepine Claims Among Atlantic Region Band Members Aged 15 Years and Older by Province (2007-2011)



Source: *Non-Insured Health Benefits Pharmacy Claims Database (2007-2011); AANDC Indian Registry System (2007-2011)*

In 2011, for Atlantic region band members, the prevalence of benzodiazepine claims was highest among band members aged **65 years and older** while the prevalence of opioid claims was highest among band members aged **50 to 64 years**.

In 2011, the prevalence of benzodiazepine claims was highest among band members aged 50 to 64 years in New Brunswick, Nova Scotia, and Prince Edward Island (Figure 24).

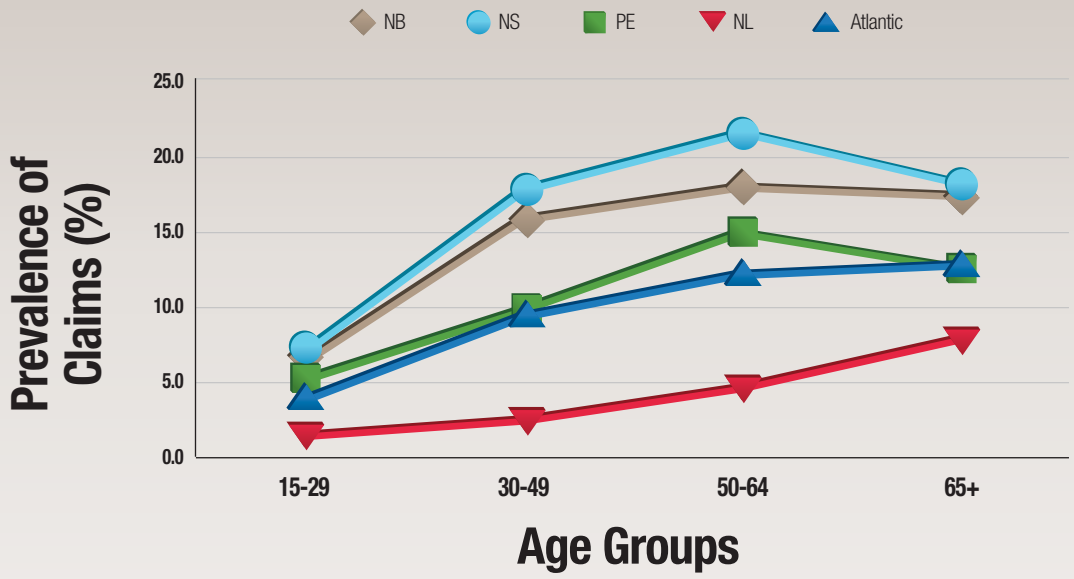
In Newfoundland and Labrador and in the Atlantic region overall, the prevalence was highest among band members aged 65 years and older.

The prevalence of claims among those aged 65 years and older in the four provinces ranged from approximately 8% to 18%.

The prevalence of benzodiazepine claims was higher among females than among males across all age groups for all provinces. The differences ranged between approximately 1% and 4%.

Benzodiazepines should be prescribed cautiously in those aged 65 years and older.[45] This is because negative effects (increased fall risk, slow reaction time, confusion, sleepiness, forgetfulness) to these medications are more common among elderly patients and occur more frequently with advancing age. There is also a risk of abuse and dependence in this population; chronic pain, depression, and isolation are common problems among elderly persons and can predispose them to benzodiazepine use and dependence.[45]

Figure 24. Prevalence of Benzodiazepine Claims Among Atlantic Region Band Members by Province by Age (2011)



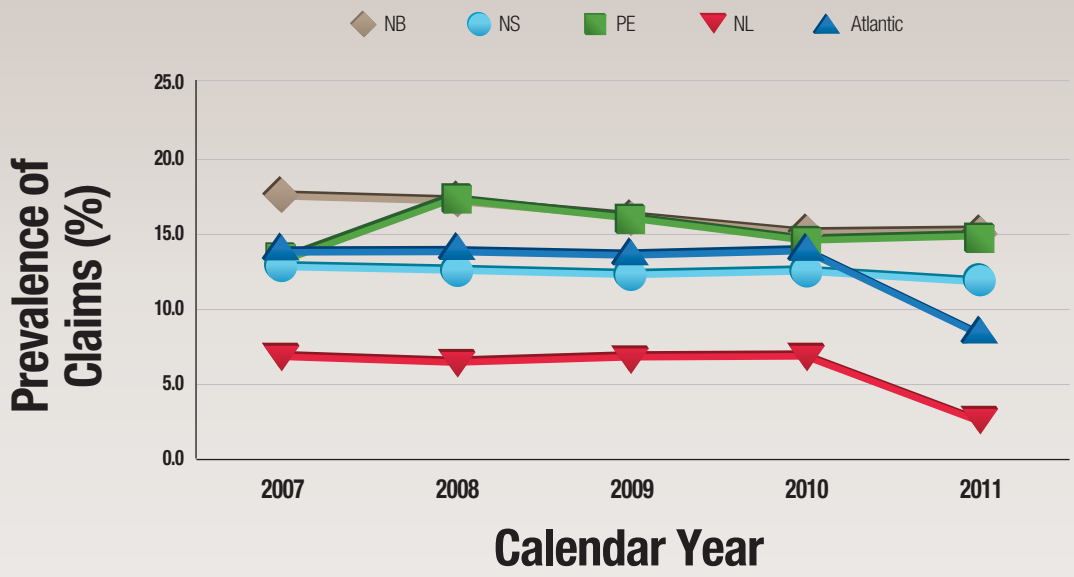
Source: *Non-Insured Health Benefits Pharmacy Claims Database (2011); AANDC Indian Registry System (2011)*

9.1.2 Opioid Medication Claims

The prevalence of opioid claims was relatively stable in Newfoundland and Labrador and the Atlantic region overall from 2007 to 2010 (Figure 25). The prevalence decreased for both in 2011 due to the increase in population eligible to access the NIHB program with the establishment in 2011 of the Qalipu Mi'kmaq First Nation Band.

From 2008 to 2011, the prevalence was highest among Prince Edward Island and New Brunswick band members and lowest among Newfoundland and Labrador band members across all years. For Nova Scotia band members, the prevalence of opioid claims was stable across all five years. The prevalence of opioid claims was higher among females than among males in the four provinces and in the Atlantic region overall across all five years.

Figure 25. Prevalence of Opioid Claims Among Atlantic Region Band Members Aged 15 Years and Older by Province (2007-2011)



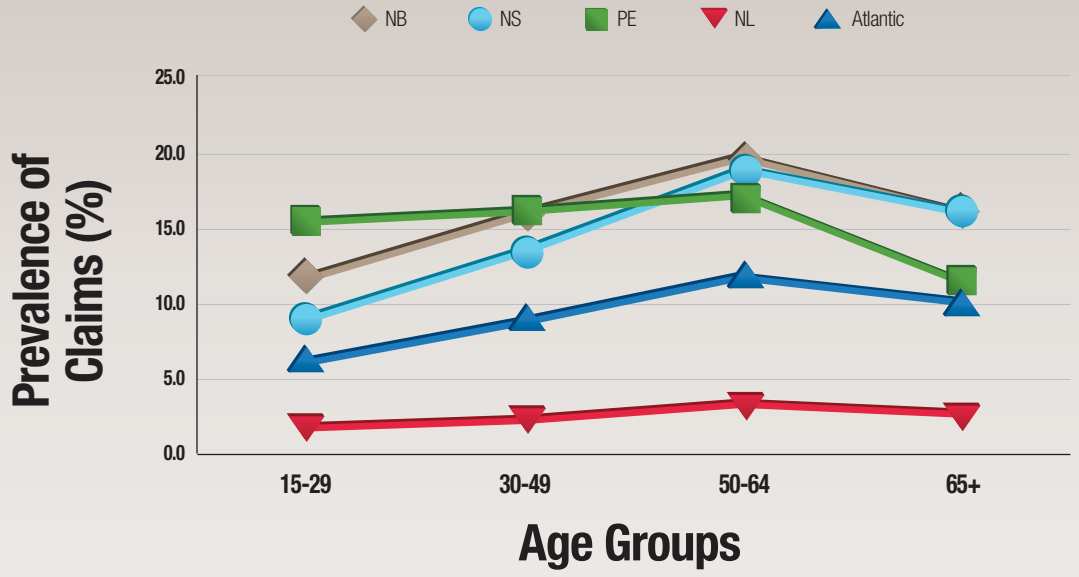
Source: *Non-Insured Health Benefits Pharmacy Claims Database (2007-2011); AANDC Indian Registry System (2007-2011)*

In 2011, the prevalence of opioid claims was the highest among band members aged 50 to 64 years for all provinces and for the Atlantic region overall (Figure 26). The rates ranged from approximately 4% (Newfoundland and Labrador) to 20% (New Brunswick).

It is noteworthy that the prevalence of opioid claims among the youngest age group (15 – 29) was above 10% in both Prince Edward Island (15.6%) and New Brunswick (11.4%).

For band members 65 years and older, the prevalence of opioid claims was higher among males than among females for all provinces and for the Atlantic region overall. In Prince Edward Island, the prevalence among females was 2.3 times the prevalence among males for this age group.

Figure 26. Prevalence of Opioid Claims Among Atlantic Region Band Members by Province by Age (2011)



Source: *Non-Insured Health Benefits Pharmacy Claims Database (2011); AANDC Indian Registry System (2011)*

9.1.3 Methadone Claims

Methadone is an opioid that is used to help treat dependence on other opioids such as heroin, codeine, and morphine[46]. Methadone maintenance treatment prevents withdrawal and relieves the cravings that can drive an addicted individual to seek their next dose of opioids. Methadone does not, however, cause the euphoria that is typical of other opioids.

When methadone is prescribed by a physician, and taken in an appropriately controlled and supported environment, the opportunity becomes available for the individual to learn to avoid the drug-seeking lifestyle.

Methadone is medically safe, and is one of the most effective treatments currently available for opioid addiction.[46]

There was a higher prevalence of methadone claims for opioid dependence among New Brunswick band members (2.1 - 4.3%) than in the other Atlantic provinces every year since 2007 (Table 15). It is unclear whether this higher prevalence of methadone claims is a reflection of a higher underlying rate of opioid dependence in New Brunswick than in the other Atlantic provinces, or easier access to methadone treatment in New Brunswick than in the other provinces.

Table 15. Prevalence of Methadone Claims Among Atlantic Region Band Members Aged 15 Years and Older by Province (2007-2011)

Calendar Year	New Brunswick (%)	Nova Scotia (%)	Prince Edward Island (%)	Newfoundland and Labrador (%)	Atlantic (%)
2007	2.1	0.4	*	*	1.1
2008	2.7	0.5	*	*	1.3
2009	3.8	0.5	*	*	1.8
2010	4.3	0.7	0.5	*	2.1
2011	4.0	0.8	0.6	0.1	1.2

** Number of claims is too small to report*
Source: *Non-Insured Health Benefits Pharmacy Claims Database (2011); AANDC Indian Registry System (2011)*

From 2008 to 2011, there was a steady increase in both the number of Indian Residential School (IRS) students and their families who accessed counselling services and the number of counselling sessions provided.

The increases were likely a result of increased awareness among IRS students and their family members about the availability of these services and sessions.

Section 10: Spiritual Health

10.1 Indian Residential Schools

10.1.1 Indian Residential Schools Resolution Health Support Program

The Indian Residential School (IRS) Resolution Health Support Program provides emotional health and wellness support to former IRS students and their families, regardless of status and place of residence, who are eligible for the Common Experience Payment; and Independent Assessment Process; as well as those who are resolving claims through the Alternative Dispute Resolution, court processes, or participating at Truth and Reconciliation Commission events.

There was a steady increase in both the number of individuals who accessed counselling services and the number of counselling sessions from 2008 to 2011 (Table 16). The increases were likely a result of increased awareness among IRS students and their family members about the availability of these services and sessions.

Table 16. The Number of Indian Residential School Students and Family Members who Accessed Counselling Services and Number of Sessions

Fiscal Year	Number of Individuals Accessing Counselling Services	Number of Counselling Sessions
2008-2009	26	477
2009-2010	47	1084
2010-2011	72	1893

Source: *IRS Atlantic internal report*

10.1.2 Truth and Reconciliation Commission Atlantic National Event

The Truth & Reconciliation Commission of Canada (TRC) held a four day Atlantic National Event in Halifax, Nova Scotia from October 26th – October 29th 2011. Approximately 450 Atlantic region survivors, family members, and support persons attended the event. Furthermore, it is estimated that the Atlantic National Event attracted as many as 2,000 visitors a day.

Residential School Survivors were able to share their truth and experiences through Private Statement Gatherings, during the Sharing Circles with Survivor Committee, and in the Commissioners Sharing Panel. The resilience of Survivors was also celebrated at the Dialogue on Resilience. The Expressions of Reconciliation event gave individuals, organizations, and representatives of the parties to the Resident Schools Settlement Agreement an opportunity to make statements, presentations, or apologies directly to Survivors. It was through these forums that the TRC received 154 statements.

There were 20 expressions of reconciliation from individuals, organizations, governments, and churches. On the second day of the event, the University of Manitoba apologized before the Commission for failing to acknowledge and challenge the Indian Residential School system and policies.

A Health Support Team was available on site every day with overnight coverage provided by a team consisting of a Critical Incident Lead and a Health Canada lead. The health support team was made up of Cultural Support Providers (i.e., Elders and Traditional Healers) and people from addictions programs, mental wellness teams, First Nations Health Centres, and the Nunatsiavut Government. The health supports were well utilized and dealt with a wide range of issues including high levels of anxiety.

Some highlights from the Atlantic National Event include:

- The arrival at the Opening Ceremony of a Residential School Survivor who walked more than 2,200 kilometres from Ontario.
- An honouring ceremony for Nora Bernard, a Mi`kmaq activist and Survivor who sought compensation for Survivors of the residential school system.
- Induction of five Honorary Witnesses and three Youth Witnesses who all accepted responsibility for sharing what they learned with others.
- More than 50 ceremonies, truth sharing, educational activities, cultural performances and reconciliation activities took place.
- More than 900 viewers observed 13 different films & documentaries.
- 10,000 viewers from 13 countries and 4 continents - watched the web casts.
- 150,000 Facebook post views in October 2011 with 48,350 post views during the four day event.
- 941 Twitter followers (an increase of 200 followers since the Northern Event).
- Up to 800 people were fed breakfasts and dinners each day.

Through this historic event, the TRC reached a large number of Canadians as part of its mandate to learn the truth about what happened in the residential schools and to share this truth with all Canadians.[47]

References

1. Qalipu Mi'kmaq First Nation Band. Available from: http://qalipu.ca. Accessed November 6, 2012.

2. First Nations Information Governance Centre. First Nations Regional Longitudinal Health Survey (RHS) Phase 2 (2008/10): National report on adults, youth and children living in First Nations communities. Ottawa: First Nations Information Governance Centre; 2012. Available from: http://www.rhs-ers.ca/node/6. Accessed October 9, 2012.

3. Aboriginal Affairs and Northern Development Canada. Regional data submissions; 2009, 2010, 2011.

4. Public Health Agency of Canada. Case definitions for communicable diseases under national surveillance. Canada Communicable Disease Report. 2009;35:S2. Available from: http://www.phac-aspc.gc.ca. Accessed November 12, 2012.

5. Public Health Agency of Canada. Report on sexually transmitted infections in Canada. 2008. Available from: http://www.phac-aspc.gc.ca/std-mts/report/sti-its2008/index-eng.php. Accessed November 12, 2012.

6. Public Health Agency of Canada. Reported cases and rates of chlamydia by age group and sex, 1991 to 2009. Available from: http://www.phac-aspc.gc.ca/std-mts/sti-its_tab/chlamydia-eng.php. Accessed November 12, 2012.

7. Earle L. Understanding chronic disease and the role for traditional approaches in aboriginal communities. National Collaborating Centre for Aboriginal Health. 2011. Available from: http://www.nccah-ccnsa.ca/docs/social%20determinates/1828_NCCAH_mini_chronic_disease_final.pdf. Accessed October 29, 2012.

8. Health Canada. First Nations and Inuit Health. Diseases and health conditions. Available from: http://www.hc-sc.gc.ca/fniah-spnia/diseases-maladies/index-eng.php. Accessed October 1, 2012.

9. Public Health Agency of Canada. Diabetes in Canada: Facts and figures from a public health perspective. Ottawa: 2011.

10. Canadian Diabetes Association. Gestational diabetes: Preventing complications in pregnancy. Available from: http://www.diabetes.ca/diabetes-and-you/what/gestational. Accessed October 10, 2010.

11. Health Canada. It's your health. Heart disease – heart health. 2010. Available from: http://www.hc-sc.gc.ca/hl-vs/alt_formats/pdf/iyh-vsv/diseases-maladies/heart-coeur-eng.pdf. Accessed October 25, 2012.

12. Tjepkema M, Wilkins R, Urb M, Goedhuis N, Pennock J. Cardiovascular disease mortality among First Nations people in Canada, 1991-2001. Chronic Diseases and Injuries in Canada. 2012;32:200-7. Available from: http://www.phac-aspc.gc.ca/publicat/cdic-mcbc/32-4/assets/pdf/vol32n4-tjepkema-eng.pdf. Accessed November 5, 2012.

13. Health Canada. Health concerns. Canadian Tobacco Use Monitoring Survey (CTUMS). Summary of Annual Results for 2011. 2012. Available from: http://www.hc-sc.gc.ca/hc-ps/tobac-tabac/research-recherche/stat/_ctums-esutc_2011/ann_summary-sommaire-eng.php. Accessed November 6, 2012.

14. Statistics Canada. Table 102-4505 - Crude birth rate, age-specific and total fertility rates (live births), Canada, provinces and territories, annual (rate), CANSIM (database). 2012. Available from: http://www5.statcan.gc.ca/cansim/. Accessed October 22, 2012.

15. Statistics Canada. Table 102-4509 – Live births, by birth weight and sex, Canada, provinces and territories, annual, CANSIM (database). 2012. Available from: http://www5.statcan.gc.ca/cansim/. Accessed October 22, 2012.

16. The Well-Being of Canada's Young Children. Government of Canada report. Ottawa: Human Resources and Skills Development Canada, the Public Health Agency of Canada and Indian and Northern Affairs Canada; 2011. Available from: http://www.dpe-agje-ecd-elcc.ca/eng/ecd/well-being/sp_1027_04_12_eng.pdf. Accessed November 1, 2012.

17. Public Health Agency of Canada. Canadian perinatal health report, 2008 edition. Ottawa: 2008.

18. Carson G, Vitale L, Crane J, Croteau P, Graves L, Kluka S. et al. Alcohol use and pregnancy consensus clinical guidelines. Journal of Obstetrics and Gynaecology Canada. 2010;32:S1. Available from: http://www.sogc.org/guidelines/documents/gui245CPG1008E.pdf. Accessed November 6, 2012.

19. Healthy Child Manitoba Office. Position paper developing a national prevalence plan for FASD in Canada. 2012. Available from: http://canfasd.ca/files/PDF/Prevalence/FASD_Prevalence_Position_Paper_final_March2012.pdf. Accessed December 12, 2012.

20. Health Canada. It's your health. Fetal alcohol spectrum disorder. 2006. Available from: http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/diseases-maladies/fasd-etcaf-eng.php. Accessed November 6, 2012.

21. Health Canada. Nutrition for healthy term infants: Recommendations from birth to six months. A joint statement of Health Canada, Canadian Paediatric Society, Dietitions of Canada, and Breastfeeding Committee for Canada. 2012. Available from: http://www.hc-sc.gc.ca/fn-an/nutrition/infant-nourisson/recom/index-eng.php. Accessed November 2, 2012.

22. World Health Organization and UNICEF. Global strategy for infant and young child feeding. 2003. Available from: http://www.who.int/nutrition/publications/infantfeeding/en/. Accessed November 10, 2012.

23. Health Canada. Food and nutrition. Trends in breastfeeding practices in Canada (2001 to 2009-2010). 2012. Available from: http://www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/prenatal/trends-tendances-eng.php. Accessed October 15, 2012.

24. Seach KS, Dharmage SC, Lowe AJ, Dixon JB. Delayed introduction of solid feeding reduces child overweight and obesity at 10 years. International Journal of Obesity. 2010;34:1475-79. doi:10.1038/ijo.2010.101.

25. Public Health Agency of Canada. A parent's guide to immunization. 2009. Available from: www.publichealth.gc.ca/immunization. Accessed October 5, 2012.

26. Tremblay MS, Colley RC, Saunders TJ, Healy GN, Owen N. Physiological and health implications of a sedentary lifestyle. Applied Physiology, Nutrition, and Metabolism. 2010;35:725-40.

27. Valois R, Zullig K, Huebner S, Drane J. Physical activity behaviors and perceived life satisfaction among public high school adolescents. Journal of School Health. 2004;74:59-65.

28. Warburton DER, Nicol CW, Bredin SSD. Health benefits of physical activity: The evidence. CMAJ. 2006;174:801-809. doi: 10.1503/cmaj.051351.

29. Bauman A, Finegood DT, Matsudo V. International perspectives on the physical inactivity crisis: Structural solutions over evidence generation? Preventive Medicine. 2009;49:309-12.

30. Davey J, Fitzpatrick M, Garland R, Kilgour M. Adult participation motives: Empirical evidence from a workplace exercise programme. European Sport Management Quarterly. 2009;9:141-62. doi: dx.doi.org/10.1080/16184740802571427.

31. Young TK, Katzmarzyk PT. Physical activity of Aboriginal people in Canada. Applied Physiology, Nutrition, and Metabolism. 2007;32:148-60. doi: 10.1139/H07-110.

32. Active Healthy Kids Canada. Is active play extinct? The Active Healthy Kids Canada 2012 Report Card on Physical Activity for Children and Youth. 2012. Available from: www.activehealthykids.ca. Accessed December 1, 2012.

33. Health Canada. It's your health. The effects of oral health on overall health. 2009. Available from: http://www.hc-sc.gc.ca/hl-vs/alt_formats/pacrb-dgapcr/pdf/iyh-vsv/life-vie/dent-eng.pdf. Accessed November 1, 2012.

34. Health Canada. Guidelines for Canadian drinking water quality summary table. 2008. Available from: http://www.hc-sc.gc.ca/ewh-semt/alt_formats/hecs-sesc/pdf/pubs/water-eau/sum_guide-res_recom/summary-sommaire-eng.pdf. Accessed November 10, 2010.

35. Health Canada. Mould and your health. 2010. Available from: http://www.hc-sc.gc.ca/fniah-spnia/alt_formats/pdf/promotion/public-publique/home-maison/mould-moisissure-eng.pdf. Accessed October 15, 2010.

36. Public Health Agency of Canada. How does education affect health? Available from: http://www.phac-aspc.gc.ca/ph-sp/determinants/qa-qr3-eng.php. Accessed November 3, 2010.

37. Statistics Canada. Summary public school indicators for Canada, the Provinces and Territories, 2005/2006 to 2009/2010. Catalogue no. 81-595-M No. 095; 2011. Available from: http://www.statcan.gc.ca/pub/81-595-m/81-595-m2011095-eng.htm. Accessed November 6, 2012.

38. Aboriginal Affairs and Northern Development Canada. National Nominal Roll Database. 2008-2009, 2009-2010, 2010-2011.

39. Canadian Pharmacists Association. e-CPS Compendium of Pharmaceuticals and Specialties. 2013. Available from: http://www.e-therapeutics.ca/. Accessed October 3, 2012.

40. Sproule B, Brands B, Li S, Catz-Biro L. Changing patterns in opioid addiction. Can Fam Physician. 2009;55:68-9.e 1-5.

41. World Health Organization. World Health Organization lexicon of alcohol and drug terms. Available from: http://www.who.int/substance_abuse/terminology/who_lexicon/en/. Accessed November 12, 2010.

42. Hernandez SH, Nelson LS. Prescription drug abuse: Insight into the epidemic. Clin Pharmacol Ther. 2010;88:307-17.

43. Centre for Addiction and Mental Health. Addiction Toolkit: Fundamentals of Addiction. Available from: http://knowledgex.camh.net/primary_care/toolkits/addiction_toolkit/fundamentals/Pages/faq_what_meant_addiction.aspx. Accessed November 12, 2010.

44. Aparasu RR, Mort JR, Brandt H. Psychotropic prescription use by community-dwelling elderly in the United States. JAGS. 2003;51:671-77.

45. Bogunovic OJ, Greenfield SF. Use of benzodiazepines among elderly patients. Practical Geriatrics. 2004;55:233-35.

46. Centre for Addiction and Mental Health. Mental health and addiction information. Methadone. Available from: http://www.camh.ca/en/hospital/health_information/a_z_mental_health_and_addiction_information/methadone/Pages/methadone.aspx. Accessed October 23, 2012.

47. Truth and Reconciliation Commission of Canada. Available from: http://www.trc-cvr.ca. Accessed November 8, 2012.

Appendix 1: Glossary

Aboriginal Identity

Refers to anyone who identified with at least one Aboriginal group including:

- North American Indian
- Métis
- Inuit
- Individuals who reported being a Treaty Indian or a Registered Indian (as defined by the Indian Act of Canada)
- Individuals who reported they were members of an Indian band or First Nation on the Statistics Canada 2006 Census

Acute Illness

An illness that starts quickly and can either progress rapidly or end quickly. Acute illnesses are of a short term or duration.

Benzodiazepines

A class of drugs that have a calming effect and are mainly used to relieve anxiety and help people sleep. Examples include lorazepam (Ativan) and diazepam (Valium).

Chronic Illness or Condition

An illness or medical condition that is long-lasting or recurrent. Asthma, cancer, and diabetes are examples of chronic illnesses.

Gestational Diabetes

Refers to high blood sugar with onset or first recognition during pregnancy.

Incidence

The number of new cases of disease or events in a defined population, within a specified period of time.

Musculoskeletal

Relating to the body's bones, muscles, joints, tendons, ligaments, and nerves.

Opioids

A class of drugs that relieve pain. Examples include morphine and oxycodone.

Population Growth Rate

Increase in the number of people in a population over time.

Prevalence

The total number of cases of a disease, condition, or event in a given population, at a specified time.

Rate

The proportion of a population affected with a disease or condition or by an event over a specified period of time.

Subcutaneous

Refers to beneath or under the layers of the skin.

Surveillance

Relating to health, surveillance is the systematic collection, analysis, and interpretation of health-related information.

Evaluation

Please return the evaluation to Glenda Rosborough by fax (902-426-8675) or by mail to Suite 1515, Maritime Centre, 1505 Barrington Street, Halifax, NS, B3J-3Y6

Please circle the best answer for questions 1 - 3. Any additional feedback is appreciated.

1. **Readability:** Overall I would rate the readability of this report as

   ○ Poor ○ Fair ○ Average ○ Very Good ○ Excellent

   Comments and / or suggestions for future:

2. **Organization:** Overall I would rate the organization of this report as

   ○ Poor ○ Fair ○ Average ○ Very Good ○ Excellent

   Comments and / or suggestions for future:

3. **Content:** Overall I would rate the data presented in this report as

   ○ Poor ○ Fair ○ Average ○ Very Good ○ Excellent

   Comments and / or suggestions for future:

Please check all that apply for question 4:

4. I would use the information in this report for the following:

   ○ Annual reports ○ CBRT ○ Community Health Planning ○ Program Planning

5. What would make the report more useful?

6. How can FNIHB best work with communities to improve health information analysis and management?

7. Other comments:

Contact Information

First Nations and Inuit Health Atlantic Region
Health Canada
Suite 1525, 1505 Barrington Street
Halifax, Nova Scotia
B3J 3VC
Email: Atlantic_epis@hc-sc.gc.ca