



FIRST NATIONS AND INUIT HEALTH

*Health Status of First Nations On-Reserve
in Atlantic Canada 2015*



Health
Canada

Santé
Canada

Canada



Health Canada is the federal department responsible for helping the people of Canada maintain and improve their health. We assess the safety of drugs and many consumer products, help improve the safety of food, and provide information to Canadians to help them make healthy decisions. We provide health services to First Nations people and to Inuit communities. We work with the provinces to ensure our health care system serves the needs of Canadians.

Également disponible en français sous le titre :
Santé des Premières Nations et des Inuits – État de santé des membres des Premières Nations vivant dans les réserves au Canada atlantique 2015

To obtain additional information, please contact:

Health Canada
Address Locator 0900C2
Ottawa, ON K1A 0K9
Tel.: 613-957-2991
Toll free: 1-866-225-0709
Fax: 613-941-5366
TTY: 1-800-465-7735
E-mail: publications@hc-sc.gc.ca

This publication can be made available in alternative formats upon request.

© Her Majesty the Queen in Right of Canada, as represented by the Minister of Health, 2016

Publication date: March 2016

This publication may be reproduced for personal or internal use only without permission provided the source is fully acknowledged.

PRINT Cat.: H33-1/17E
ISSN: 2292-8375

PDF Cat.: H33-1/17E-PDF
ISSN: 2292-8383

Pub.: 150269

TABLE OF CONTENTS

Foreword	1
Section 1: Data Sources	3
1.1 FNIHB Program Data	4
1.1.1 Community-Based Reporting Template	4
1.1.2 Electronic Service Delivery Reporting Template – Home and Community Care	4
1.1.3 Environmental Health Information System	5
1.1.4 WaterTrax	5
1.1.5 FNIHB Dental Database Service and Productivity Reports	5
1.1.6 Immunization	6
1.1.7 Treatment Centre Data	6
1.1.8 Teleform	7
1.1.9 Non-Insured Health Benefits Pharmacy Claims Database	8
1.2 Indigenous and Northern Affairs Canada Indian Registry System	9
1.3 First Nations Regional Health Survey	10
1.4 First Nations Regional Early Childhood, Education and Employment Survey	10
1.5 Canadian Community Health Survey	11
1.6 Other Considerations about Data Sources and Data	12
Section 2: Social Environment	13
2.1 The Atlantic Region	13
2.2 Population	14
2.2.1 Population Counts	14
2.2.2 Population Trends	15
2.3 Language	16
2.4 Education	17
2.4.1 Educational Attainment	17
2.4.2 Training and Capacity Building	18
2.4.3 Aboriginal Head Start On Reserve	20
2.5 Income	22
2.6 Employment	22
2.7 Community Well-Being Index	24
2.8 Children in Care	25
Section 3: Physical Environment	26
3.1 Environmental Inspections	27
3.2 Housing	28
3.2.1 Housing Conditions	28
3.2.2 Crowding	28
3.2.3 Mold	29
3.3 Water Quality	29
3.3.1 Bacteriology Assessments	30
3.3.2 Chemical Reports	32
3.3.3 Drinking Water Advisories	32

Section 4: Physical Health	34
4.1 Maternal and Child Health	34
4.1.1 Maternal Risk Factors	34
4.1.2 Birth Rate	35
4.1.3 Birth Weight	36
4.1.4 Breastfeeding	36
4.1.5 Introduction to Solid Foods	38
4.2 Physical Activity	39
4.2.1 Routine Activities	40
4.3 Chronic Diseases	41
4.3.1 Risk Factors for Chronic Disease	41
4.3.2 Diabetes	46
4.3.3 Cardiovascular Disease	50
4.3.4 Respiratory Disease	54
4.3.5 Pain Management	54
4.4 Sexual Health	57
4.5 Notifiable Diseases	58
4.5.1 Chlamydia	58
4.5.2 Hepatitis C	61
4.6 Childhood Immunization Rates	62
Section 5: Mental Wellness	63
5.1 Culture and Well-Being	63
5.2 Mental and Emotional Health	66
5.2.1 Self-Reported Psychological or Emotional Disorders	66
5.2.2 Benzodiazepine Use	67
5.2.3 Indian Residential Schools	70
5.3 Substance Use	72
5.3.1 National Native Alcohol and Drug Abuse Program	72
5.3.2 Opioid Replacement Therapy	73
Section 6: Health Care Services	75
6.1 Dental Care	75
6.1.1 <i>deft</i> /DMFT Indices	75
6.1.2 Children's Oral Health Initiative	78
6.1.3 Dental Therapy	80
6.2 Home and Community Care	81
List of Figures	84
List of Tables	85
List of Acronyms	86
References	87



Debra Keays-White

*Regional Executive Officer,
First Nations and Inuit Health Branch, Atlantic Region*

FOREWORD

Welcome to the fifth annual Health Status Report of First Nations On-Reserve in Atlantic Canada! Like previous versions, the intent of this report is to help paint a picture of the current health status of First Nations communities in the Atlantic region.

No matter where in the health system one works, relevant, accurate, and timely information helps us make better decisions. In clinical care settings, practitioners use information such as blood pressure readings, body temperature, x-ray, and blood chemistry to help them determine how to improve an individual's health. In public health practice, we rely on aggregate data, such as the information you will find here, to see where our efforts to improve community and population health should be focussed. I am delighted that every year our available information improves in quantity and quality.

This report begins by outlining the data sources used. We have started with this topic as it is important to be aware of data limitations and how they may impact the interpretation of results. It

is equally important to use data limitations as opportunities for discussion on improving the quality and quantity of health data. As the availability and quality improves, Health Status Reports will also improve.

As the intent of this report is to be useful to First Nations communities and stakeholders, your feedback is invaluable. So how do we make this report more *user-friendly*? To try to help with this, we are introducing a one page sheet of Fast Facts from the report. This year the Fast Facts will focus on the health status of children and youth. It is our plan to provide Fast Facts with every health status report.

We would appreciate hearing from you about your ideas, specifically:

- What would help with program planning?
- What would help with community health planning?
- How could Health Canada First Nations and Inuit Health Branch staff help you use this report?

I hope you find this report useful.

Sincerely,

A handwritten signature in black ink, reading "Debra J. Keays-White". The signature is fluid and cursive, with the first name "Debra" and last name "Keays-White" clearly distinguishable.

Debra J. Keays-White

Regional Executive Officer, First Nations and Inuit Health Branch, Atlantic Region



SECTION 1: DATA SOURCES

Understanding data quality will lead to more confident interpretation and reporting and will inform more successful actions to improve health.

The information in this report represents the best available data at First Nations and Inuit Health Branch (FNIHB), both regionally and nationally, from 2010 to 2014. These data consist of FNIHB program reports and the Non-Insured Health Benefits (NIHB) Pharmacy Claims database. Data from the First Nations Regional Health Survey, First Nations Regional Early Childhood, Education and Employment Survey, Indigenous and Northern Affairs Canada (INAC) and Statistics Canada are also included.

A limitation common to all FNIHB program data is that not all communities submit reports or some submit incomplete reports. It is unclear how these missing data would change the results presented within this report. While this is a concern, it should be noted that for most programs, the number of communities submitting reports and the completeness of reports has increased since earlier versions of the health status report.

Descriptions and limitations related to each data source used in this report are provided in subsections 1.1 to 1.6. It is hoped that the documentation of these limitations will continue to inform efforts to improve data quality.

1.1 FNIHB PROGRAM DATA

1.1.1 Community-Based Reporting Template

The Community-Based Reporting Template (CBRT) is a Health Canada form that communities complete to report program data on several different FNIHB funded programs. The CBRT was introduced in 2008-2009 as a reporting requirement of the new type of funding agreements between Health Canada and First Nations communities. It replaced some of the individual program reports. As a community's previous funding agreements expired, they have been rolled over to the new agreements and CBRT. As of 2014-2015, all 33 communities were required to report on CBRT. While every community completes the CBRT, not every community reports on each section. In 2014-2015, all 33 communities reported on maternal health.

1.1.2 Electronic Service Delivery Reporting Template – Home and Community Care

It is mandatory for all communities to submit monthly Electronic Service Delivery Reporting Template (eSDRT) reports. However, every year there are some communities that do not submit for every month. These reports are considered missing data or reports. It should be noted that there have been no missing reports from First Nations communities in either Prince Edward Island or Newfoundland and Labrador from 2011-2012 to 2013-2014. Most communities submit all required eSDRT reports.

Table 1-1 Number of communities with missing eSDRT reports (2011/12-2014/15)

Reporting year	Number of communities with missing monthly reports
2011-2012	5
2012-2013	2
2013-2014	2
2014-2015	4 (1 did not report for entire year)

Source: eSDRT reports (2011/12-2014/15)

The eSDRT reports are used by communities to document hours of service, number of visits, age groups of clients using the services, the types of services that are delivered to the client, and the

primary reasons for obtaining home care. They do not report health status. These reports allow communities to look at developing trends and the reasons why home care services are delivered. It is helpful for community health planning purposes to know which populations are being served and which services are provided most often.

Data entry errors can result in under-reporting in one category and over-reporting in another. Currently, this issue is being addressed by more clearly defining the data entry categories and processes.

The primary reasons reported for home care services do not reflect distinct numbers of clients; rather, they reflect the number of services delivered. For example, one person may 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. The current eSDRT does not reflect the primary health concern, only the reason that the home care service is provided. For example, the client's primary health issue may be diabetes but the reason for service is wound care because that can be a complication of diabetes.

1.1.3 Environmental Health Information System

Environmental Health Officers (EHOs) enter inspection data in the Environmental Health Information System (EHIS). All 33 First Nations communities have an assigned EHO.

Data entry into EHIS has gotten more robust in the last few years. Since 2010-2011, more inspection data has been input into the system and better reflects the inspections conducted annually. As such, lower inspection numbers during this earlier time period (2010-2011) may be due to underreporting of data.

1.1.4 WaterTrax

WaterTrax is used by Community-Based Water Monitors (CBWMs) and EHOs to record water quality data. In 2014-2015, 33 communities had a CBWM.

1.1.5 FNIHB Dental Database Service and Productivity Reports

Services provided by dental therapists and Children's Oral Health Initiative (COHI) service providers are entered into FNIHB's national web-based dental database. Nineteen First Nations communities have a dental therapist; 27 communities receive funding for a COHI aid.

1.1.6 Immunization

There has been a steady increase in the number of communities reporting immunization coverage data.

It is mandatory for all 33 communities to report their immunization coverage rates, yet not all communities do so, and some reports are incomplete. Also, some children receive their immunizations off-reserve and are not being captured in the immunization report. Therefore, immunization coverage rates reported for the Atlantic region are likely to be under-reported.

Since 2010, there has been a steady increase in the number of communities who report immunization coverage.

Table 1-2 Number of Atlantic First Nations communities reporting immunization coverage rates (2010-2014)

Reporting year	Number of communities reporting immunization coverage
2010	26
2011	30
2012	31
2013	31
2014	33

Source: Atlantic region immunization coverage reports (2010-2014)

1.1.7 Treatment Centre Data

There are five treatment centres and one youth treatment centre in Atlantic Canada. All six reported to FNIHB in 2014-2015. The National Native Alcohol and Drug Abuse Program (NNADAP) Treatment Centres are required to submit annual reports. The Addictions Management Information System is used to collect data including number of applications and admissions, demographics and substances used.



1.1.8 Teleform

It is mandatory for all 33 communities to report births, deaths and notifiable diseases* to FNIHB. They do this by completing monthly reporting via a fax-based Teleform system. However, not all communities consistently report data each month. In this report, teleform was used in the notifiable disease section. Because Community Health Nurses who fill out the reports may not always be aware of all cases of notifiable diseases, rates of notifiable diseases in this report may be lower than the actual rates in the communities.

Table 1-3 Percentage of Notifiable Disease Reports missing from total due (2010-2014)

Reporting year	Percentage of reports missing
2010	2%
2011	3%
2012	3%
2013	2%
2014	Less than 1%

Source: Atlantic region Teleform community reports (2010-2014)

* A notifiable disease is any disease that is required by law to be reported to provincial or territorial public health officials (see section 4-5)

1.1.9 Non-Insured Health Benefits Pharmacy Claims Database

The Non-Insured Health Benefits (NIHB) Pharmacy Claims 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. Therefore, off-reserve claimants are included in the analysis
- Prescriptions paid by cash, other drug plans, or through NIHB in another region are missing from this report
- The numerator (NIHB claimants) and denominator (total First Nations population) are from different data sources (Figure 1-1)
- 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 by the Atlantic First Nations population
- Information is not available regarding the reason for prescribing the medications, whether the medications were used as prescribed, or whether the medications were used by the person they were prescribed to

Figure 1-1 How prevalence of drug claimants using NIHB data are calculated

$$\begin{array}{c} \text{(\%)} \\ \text{Prevalence of drug} \\ \text{claimants} \end{array} = \frac{\begin{array}{c} \text{Number of clients} \\ \text{with 1+ claim(s) for drug} \\ \text{(from NIHB pharmacy claims)} \end{array}}{\begin{array}{c} \text{Total eligible} \\ \text{First Nations population} \\ \text{(from INAC Indian Registry System)} \end{array}} \times 100\%$$

In 2011, the Qalipu Mi'kmaq First Nation Band was established in Newfoundland and Labrador. By 2014, the Qalipu had 23 982 band members recognized as Registered Indians. This accounts for 38% of all Atlantic Canadian Registered Indians. Because this off-reserve group is large, when doing analysis using NIHB data, the Qalipu are excluded from the Newfoundland and Labrador data and analysed separately.



1.2 INDIGENOUS AND NORTHERN AFFAIRS CANADA INDIAN REGISTRY SYSTEM

The Indian Registry System 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 and off reserve may not be captured as residence is usually only reported to INAC at the time of birth or death of an individual
- Only registered First Nations are included in the registry so the non-registered population living on-reserve is not counted

In this report, with the exception of the NIHB data, INAC's on-reserve population counts are used as the denominator for all rate calculations.

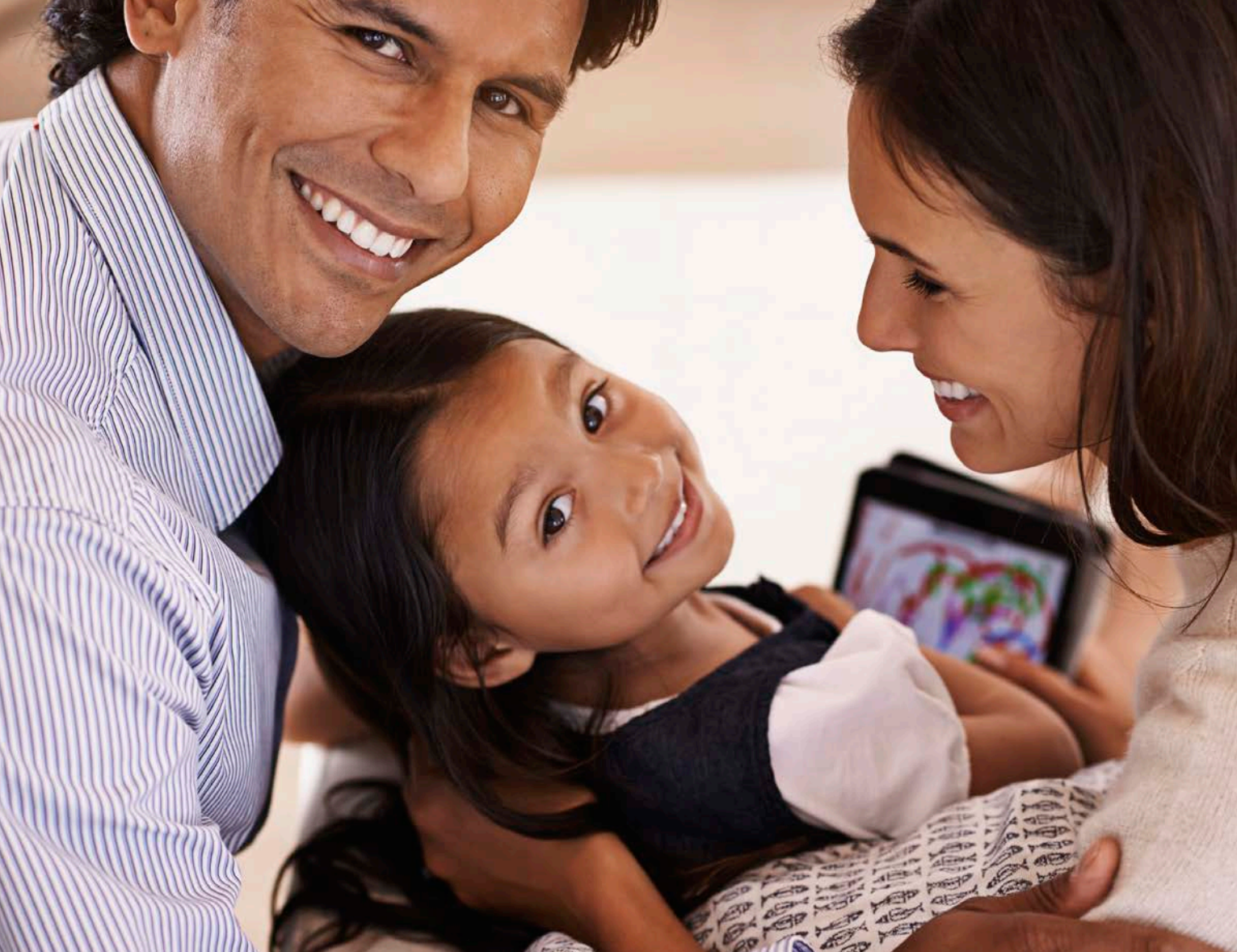
1.3 FIRST NATIONS REGIONAL HEALTH SURVEY

This report contains data from the First Nations Regional Health Survey (RHS) that was conducted between June 2008 and November 2010. The sample population for the RHS 2008-2010 was designed to represent the First Nations population living in First Nations communities in all provinces and territories, except Nunavut. Across Canada, 216 communities were included and 5.3% of the population was surveyed. Across the Atlantic region, the RHS participants were selected from a total of 22 First Nations communities (one First Nations community in NL, 12 in NS, two in PE, and seven in NB). The RHS is a First Nations governed survey of the on-reserve population. Data for this report are reflective of First Nations (Mi'kmaq and Maliseet) band members living on-reserve in Atlantic Canada and are prepared by the Union of Nova Scotia Indians (UNSI), the Atlantic regional RHS data stewards¹. Content contained within this report related to the RHS does not necessarily reflect the views of the First Nations Information Governance Centre (FNIGC). More information about the RHS can be found on the FNIGC website (www.fnigc.ca).

1.4 FIRST NATIONS REGIONAL EARLY CHILDHOOD, EDUCATION AND EMPLOYMENT SURVEY

The First Nations Regional Early Childhood, Education and Employment Survey (REEES) was administered between 2013 and 2015 in 250 First Nations communities. Similar to the RHS, the survey targets First Nations adults, youth, and children living on-reserve and in northern communities across Canada. The scope of the survey is to get a better idea of early childhood development, education and employment in these communities².

Currently, only national aggregate response data are available for this survey. However, because this information is some of the most recent and relevant to First Nations people living on-reserve, these data have been used as supplements or comparisons to Atlantic regional data in this report. More information about the REEES can be found on the First Nations Information Governance Centre website (www.fnigc.ca).



1.5 CANADIAN COMMUNITY HEALTH SURVEY

The Canadian Community Health Survey (CCHS) is a national survey administered by Statistics Canada. It collects information on a variety of health-related topics, including health status, health care utilization and determinants of health for those aged 12 and older in Canada³. It is conducted annually, and information in this report is from the 2014 cycle.

People living on-reserve and other Aboriginal settlements are excluded from this survey³. However, because the CCHS is representative of the majority of the Canadian population, it is sometimes used for comparison with Atlantic First Nations people living on-reserve in this report. More information about the CCHS can be found on the Statistics Canada website (www.statcan.gc.ca).

1.6 OTHER CONSIDERATIONS ABOUT DATA SOURCES AND DATA

Reporting Time Frames

Ideally, health status information is reported by calendar year. However, as some FNIHB programs request data from communities based on fiscal year, there are some sections of this report that are reported by calendar year (e.g., 2014) and some by fiscal year (e.g., 2014-2015). It is important to note the time frame of what is being reported, especially in reference to comparative information.

Comparator Time Frames

In this report, we tried to always include the most recently available data sources. In doing this, there are some cases where the latest health data were still a few years old (up to eight years). As such, it is important to consider the difference in time which may exist between sources, particularly for comparisons. For example, if the latest rates for one population were in 2010, and they were in 2014 for another, there may have been changes in the meantime (e.g., perhaps due to health programming in this time). However, because this is a relatively short time frame, there are unlikely to be major differences.

Rounding of Numbers

In an attempt to make the information in this report easier to read, we have rounded most numbers to the nearest whole number. In doing so, some totals no longer add up to 100%. Some numbers include one decimal place if the rounded values were not meaningful in comparison to other values.

Age Standardization

When two populations are being compared, it is important to remember that differences in their age and sex structure may account for differences in health status. For example, if a population with a high proportion of youth is compared with a population with more older people, the first population will likely have higher rates of illnesses and diseases which are more common in younger age groups (e.g., chlamydia) just based on the age structure. To overcome this, another third neutral population can be used to standardize the rates, so both populations are comparable, independent of their age structure.

In this report, age standardization was used in the sections about diabetes and notifiable diseases.

Changes in Reporting

Each year, the most robust data sources are used for this report. Changes from prior editions of the report may be due to differences in data reporting, updating of sources or changes in information sources.



SECTION 2: SOCIAL ENVIRONMENT

The ways we learn, the things we eat, and how we interact with others are all influenced by our social environment⁴. It is recognized that factors like income inequality, low educational attainment and unemployment have negative impacts on health⁵. By acting as stressors and restricting life choices, these factors can influence behaviours which work in combination with biological processes to produce poor health states⁵. One direct example is not having enough money to purchase (or not having access to) nutritional food, resulting in a poor diet. One consequence of this may be obesity, a major risk factor for developing diabetes and other cardiovascular complications^{6,7}. Understanding the social environment is extremely important, as it provides the context for the health indicators which follow in this report.

2.1 THE ATLANTIC REGION

In the Atlantic region, there are 34 First Nations bands, 33 First Nations communities, and five Inuit communities. The 33 First Nations communities are the focus of this report.

For a detailed look at First Nations communities in the region, refer to the First Nations Profiles Interactive Map (<http://fnpim-cippn.aandc-aadnc.gc.ca/index-eng.html>).

2.2 POPULATION

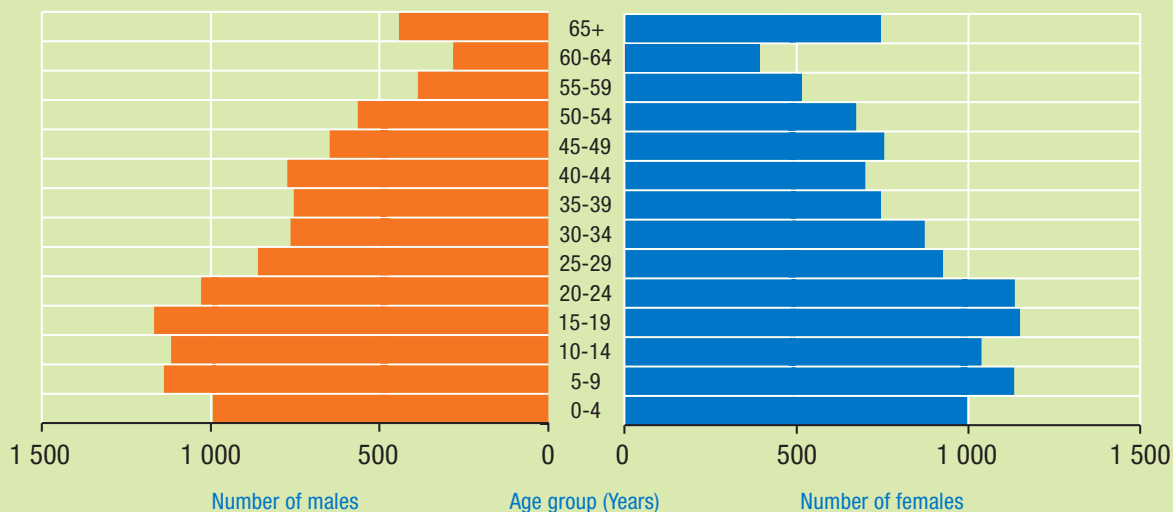
Why is knowing about age distribution important?

Age and sex are two of the biggest influences on health. As such, they can also influence how accurate it is to compare one population to another. For example, First Nations communities tend to have a greater percentage of their population younger than 25 years of age compared to the general Canadian population. Therefore, you would expect to see higher levels of health issues that affect young people in First Nations communities, just because they have a greater proportion of young people. Knowing how different the age distributions are in comparison populations can help interpret health information.

2.2.1 Population Counts

In 2014, there were 62,468 Registered Indians living in Atlantic Canada; 38% lived on-reserve and 62% lived off-reserve⁸. The on-reserve population was half female and half male, and the majority of people were under the age of 30 (55%; Figure 2-1).

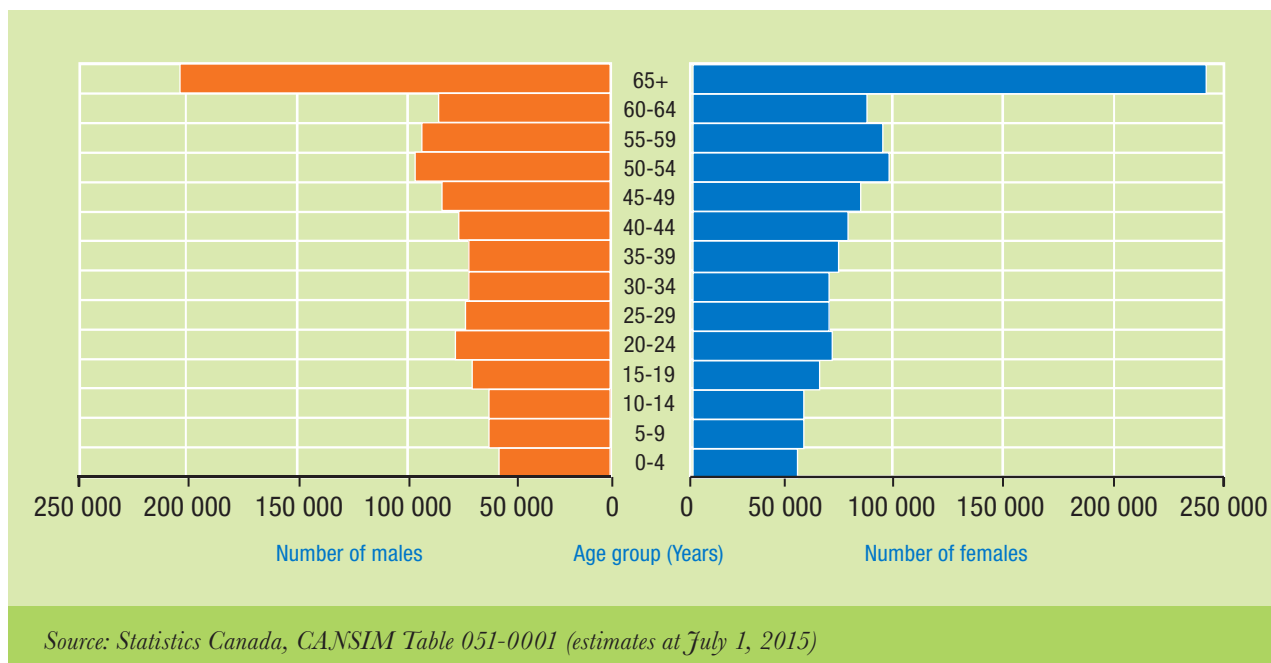
Figure 2-1 Population of Registered Indians living on-reserve in Atlantic Canada, by age and sex (2014)



Source: INAC, Registered Indian population, by sex and residence (estimates at Dec 31, 2014)

When compared with the general Atlantic population (Figure 2-2), Registered Indians living on-reserve had a larger proportion of younger people and a smaller proportion of older people. In 2014, approximately 47% of the Atlantic Registered Indian population was under the age of 25 and 5% was 65 years and older, compared with 26% and 19% in the general Atlantic population, respectively.

Figure 2-2 Population of Atlantic Canada, by age and sex (2014)



2.2.2 Population Trends

The following three populations are growing at different rates. In the last five years:

- The on-reserve population grew by 7%
- The off-reserve population grew by 6%[†]
- The general Atlantic Canadian population remained relatively stable (less than 1% increase)

[†] Last three years (2012-2014) due to addition of Qalipu band in 2011

In terms of the age distribution during this time,

- The proportion of those aged 24 and younger dropped by 2% in both the Atlantic on-reserve First Nations population and the general population
- There was an increase of 1% in the proportion of those aged 25-64 in the on-reserve population
- There was no increase in the proportion of people 65 years and older in the First Nations on-reserve population, compared with a 3% increase in the general Atlantic population

2.3 LANGUAGE

How many people on-reserve speak a First Nations language?

Seventy percent of both adult males and females on-reserve in Atlantic Canada understand or speak a First Nations language¹.

More broadly, in the Atlantic region, 46% of Aboriginal people who live on-reserve reported having knowledge of an Aboriginal language, meaning that they know the language well enough to have a conversation^{9,10}. The most commonly reported languages were Innu/Montagnais in Newfoundland and Labrador, with 65% of respondents indicating knowledge of this language. In Nova Scotia, New Brunswick and Prince Edward Island, knowledge of Mi'kmaq was most often reported, with 52%, 26% and 21% of people indicating knowledge, respectively. In New Brunswick, knowledge of Malecite was also reported by 8% of respondents⁹.

Nationally, 43% of First Nations adults living on-reserve reported learning a First Nations language as their mother tongue, and 21% reported using this language most often in daily life. Eighteen percent of children (11 years and under) were reported to have learned a First Nations language as their mother tongue, and 35% were exposed to a First Nations language all or most of the time at home. The largest barriers for children to learn languages was lack of teachers, availability of classes and others to practice with¹¹. Twenty percent of youth (aged 12 to 17) identified learning a First Nations language as their mother tongue, and 11% reported using this language most often in daily life¹².

Atlantic comparisons are not yet available as only national figures from this survey (First Nations Regional Early Childhood, Education and Employment Survey) have been released.

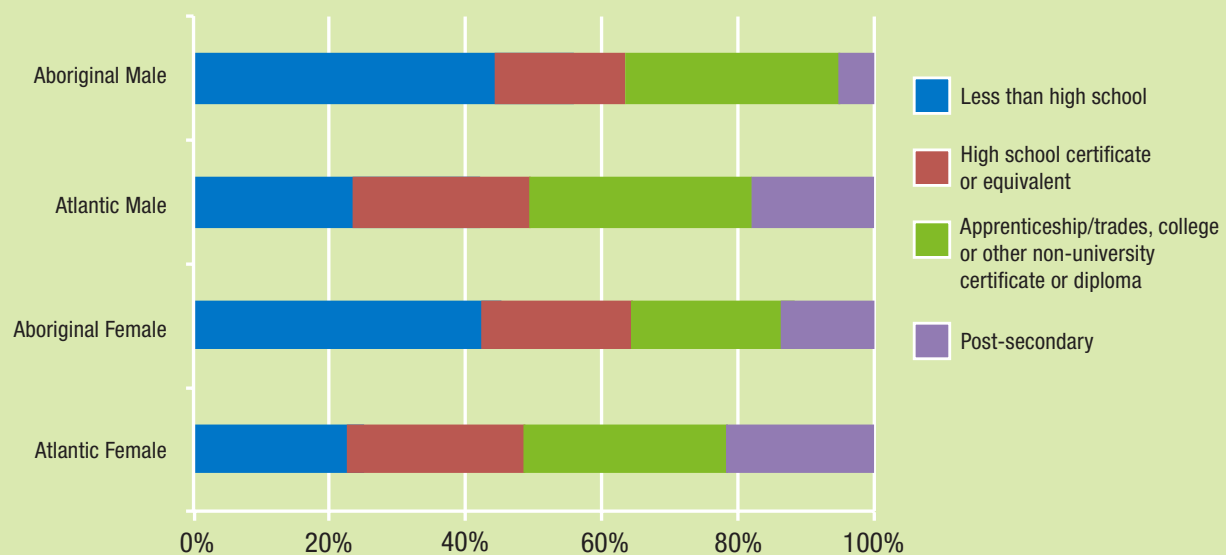


2.4 EDUCATION

2.4.1 Educational Attainment

In 2011, a higher proportion of Atlantic region Aboriginal males and females reported having less than a high school diploma compared with the general Atlantic population (Figure 2-3). High school certificate rates were similar among all groups (24-25%) with the exception of Aboriginal males who reported lower rates (19%). The proportion of people who received a trades, college or non-university certificate or diploma was similar across all groups (30-32%) with the exception of Aboriginal females (22%). Approximately 12% of Aboriginal females reported some post-secondary education compared to 22% of all Atlantic females. Similarly, fewer Aboriginal males (6%) than Atlantic males (18%) received some post-secondary education.

Figure 2-3 Educational attainment of the Atlantic Aboriginal population and the general Atlantic population (15+ years), by sex (2011)



Source: Statistics Canada, National Household Survey (2011)

Nationally, 43% of First Nations adults living on-reserve reported having less than a high school diploma, 32% said they had a high school diploma, and 24% reported some post-secondary education¹³.

2.4.2 Training and Capacity Building

There are numerous educational and training opportunities for First Nations people living on-reserve in the Atlantic region which may not be captured in traditional measures of education.

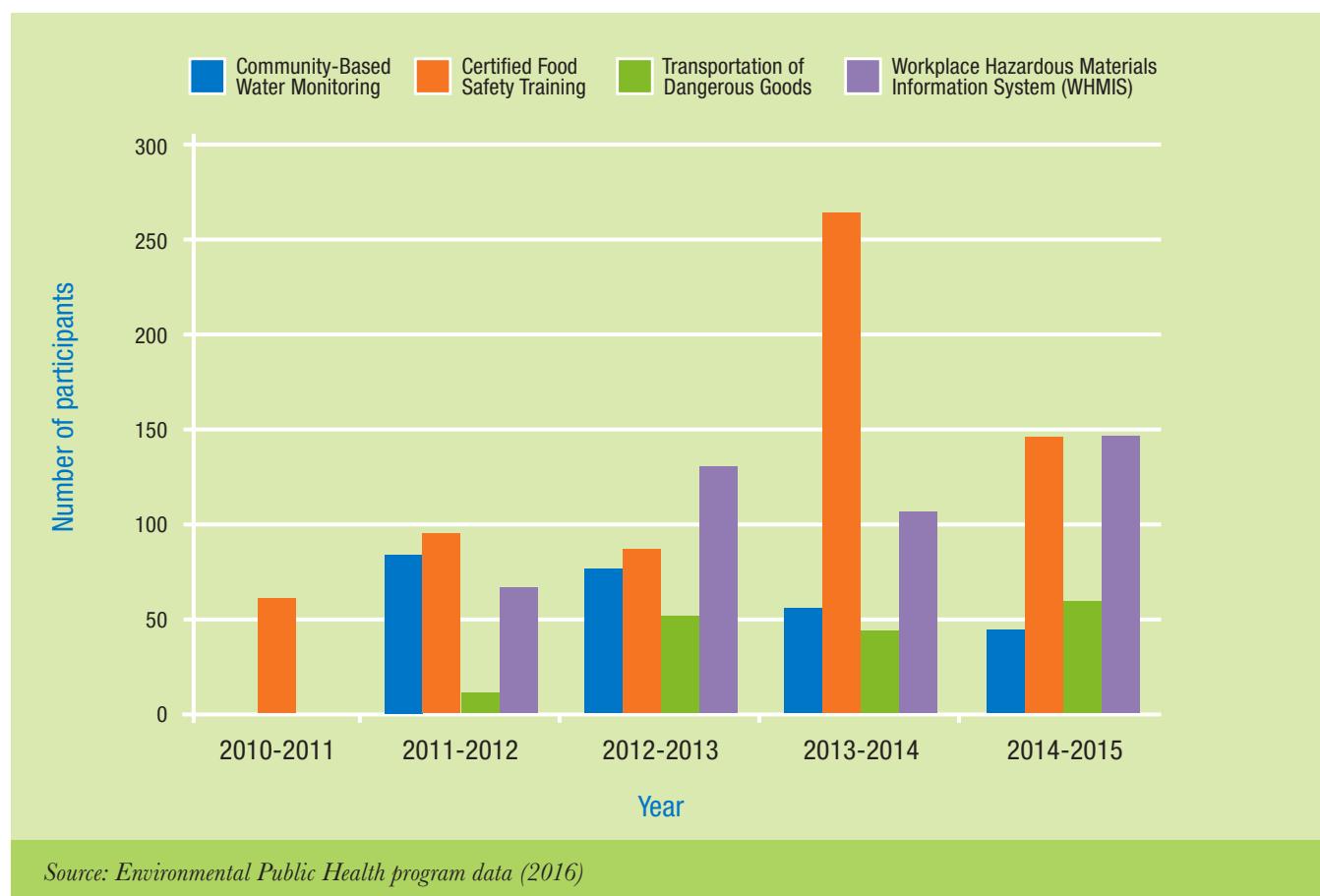
For example, the Environmental Public Health Program conducts various training courses throughout the region which allow participants to become knowledgeable and certified in a variety of skill sets, including food safety, transportation of dangerous goods and workplace materials safety. This training prepares individuals for employment opportunities and is often a requirement for jobs within the industry.

In 2014-2015, 480 participants participated in 46 training sessions which were delivered by EHOs in the region. The two most common sessions were for certified food safety training and Workplace Hazardous Materials Information System (WHMIS) training.



Over the past five years, the number of participants within these training sessions fluctuated. The most participants were in the certified food safety training and WHMIS training (Figure 2-4).

Figure 2-4 Four most common training sessions delivered in Atlantic Canada (2010/11-2014/15)



Community-Based Water Monitors (CBWMs) play a vital part in maintaining the health of their communities through their role in monitoring water quality. In 2014, there were 42 participants in the CBWM program. The program includes both written and practical examinations for CBWM certification and recertification. Participants received certificates which included their earned Continuing Educational Units from the Nova Scotia Community College.



Community Based Water Monitoring class of 2014.

2.4.3 Aboriginal Head Start On Reserve

The Aboriginal Head Start On Reserve program funds early intervention strategies to support the developmental needs of First Nations children and their families living on-reserve. The primary goals of the program is to 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.

There were 564 children aged six and younger enrolled in AHSOR in 2014-2015; this represents 16% of all children eligible for the program in the Atlantic region. Approximately 62% of children enrolled were between three and six years of age.

There were 44 children reported on the waitlist for the program. This is a 32% drop from the previous year, and represents a continued decline in waitlist numbers over the last few years.

In 2014-2015, a smaller percentage of children were screened and/or assessed for special needs and referred to other services compared with the previous year (Table 2-1).



Table 2-1 Percentage of children in AHSOR program who were screened, diagnosed, referred or on waitlist for special needs resources (2014-2015)

AHSOR activity	Percentage of children in AHSOR (2014-2015)	Change from previous year (2013-2014)
Screened/assessed for special needs [‡]	9%	↓
Diagnosed with special needs	6%	similar
Referred to other resources	12%	↓
On waitlist for diagnostic assessment	1%	similar

Source: Atlantic region CBRT reports (2014-2015)

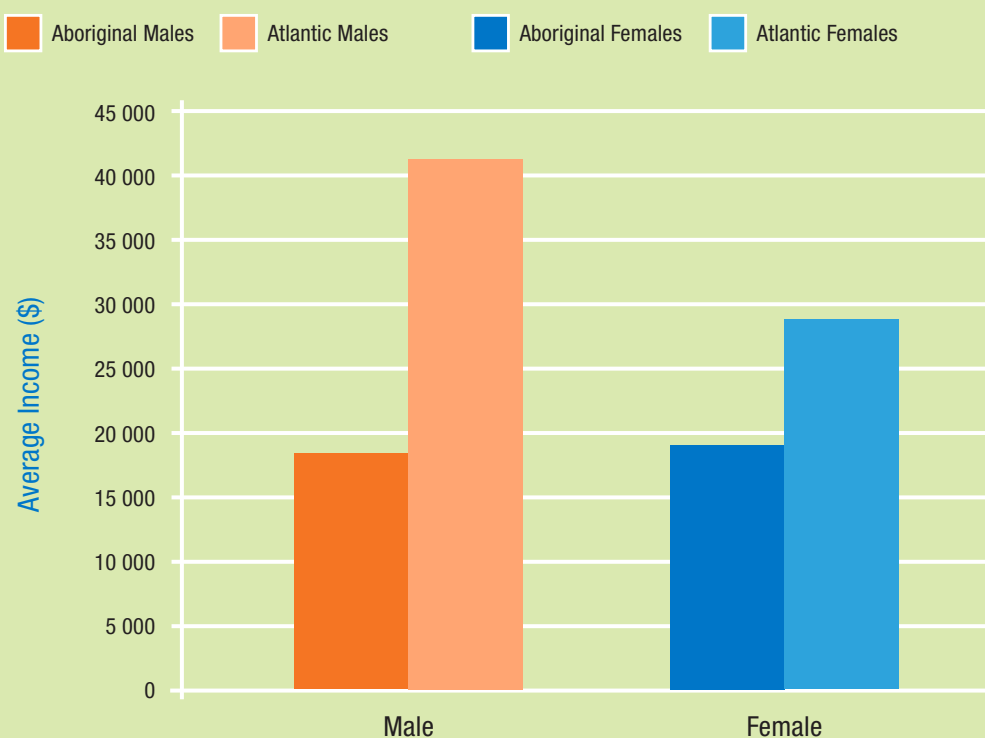
Nationally, a greater proportion of parents whose children attended a First Nations early childhood program reported their child reaching important communication milestones. For example, almost half of parents reported that other people can understand when their child speaks if they attended such a program (48%), compared with 24% for those whose child did not attend¹¹.

[‡] In CBRT, *special needs* are defined as “children who require ongoing additional support(s) or service(s) for healthy development in order to interact with their peers in day-to-day living. Special needs may include physical, sensory, cognitive and learning challenges, and mental health issues.”

2.5 INCOME

In 2011, there was little difference between the average annual income of Aboriginal males and females (15 years and older) while in the general population, males earned almost \$13 000 more than females (Figure 2-5). On average, Aboriginal people in the Atlantic region reported having a lower annual income compared to the general Atlantic population. Aboriginal males earned \$23 000 less than their non-Aboriginal counterparts. For females, the income gap was smaller at approximately \$10 000.

Figure 2-5 Average annual income for the Atlantic Aboriginal population and the general Atlantic population (15+ years), by sex (2011)



Source: Statistics Canada, National Household Survey (2011)

2.6 EMPLOYMENT

In 2011, the average employment rate was approximately 38% for both Atlantic region Aboriginal males and females. For the general Atlantic population, the average employment rate for males was 58% compared to 53% for females. The largest gaps in employment between Atlantic region Aboriginal people and the general Atlantic population were among those 20 to 34 years of age (Figure 2-6),

Figure 2-6 Employment rate for Atlantic Aboriginal population and the general Atlantic population (15+ years), by age (2011)



Nationally, 48% of First Nations males and 49% of females living on-reserve reported being employed¹⁴. About 78% reported not commuting to work, naming reasons like being close to family, giving back and building capacity as reasons why. For the remaining 22% who did commute, 51% said there were no related jobs in the community and 36% indicated there were higher wages or better training available elsewhere¹⁴.

Of those who were employed nationally, 67% rated their mental health as good, compared with 53% who were not employed. Similarly, 41% of those who were employed said they had support in life and 60% noted balance in their life, compared with 29% and 53% of those who were not employed. Also, of those who reported being happy at work, 93% indicated that their workplace was supportive of their First Nations culture¹³.

2.7 COMMUNITY WELL-BEING INDEX

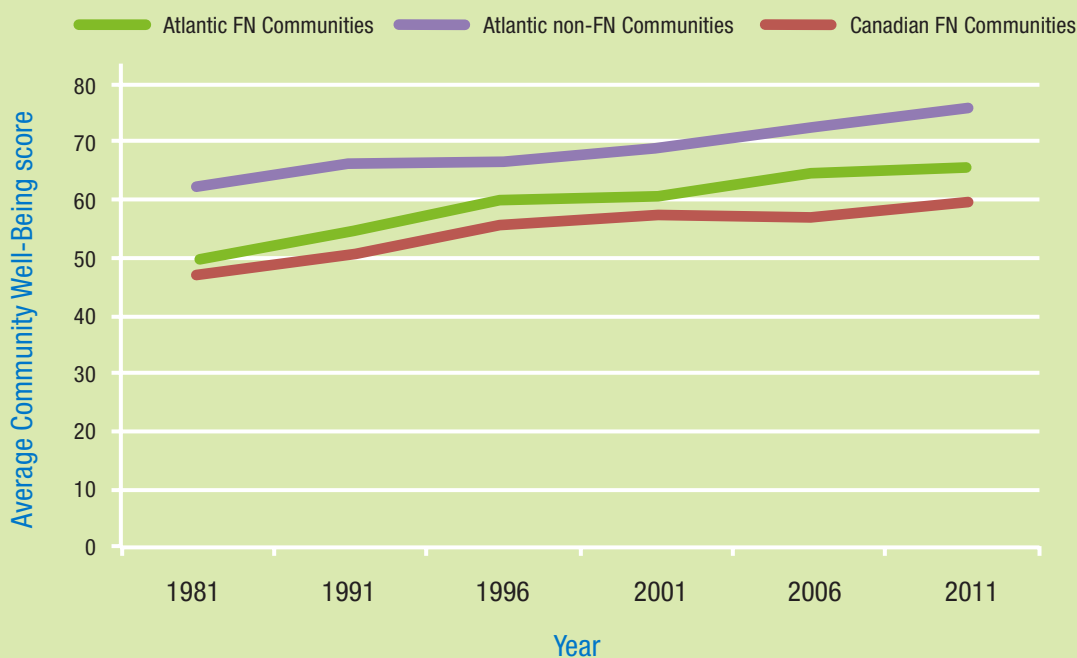
The Community Well-Being (CWB) Index was created by INAC as a way to summarize socio-economic well-being in communities. The CWB Index is a composite score (ranging from 0 to 100) which is made of four dimensions:

- Education (high school and university education attainment)
- Income (total income per capita)
- Housing (homes in adequate state of repair and not overcrowded)
- Labour force activity (participation in labour force and employment)

These measures come from census data¹⁵.

In 2011, Atlantic First Nations communities had an average score of 65 (out of 100), compared to the national First Nations average of 59. When examined over time, there was a slight decrease in the gap between Atlantic First Nations and non-First Nations communities' average scores; this gap was smallest in 1996 and 2001. However, the gap remains with First Nations communities scoring on average 11 points lower than non-First Nations communities in the Atlantic region in 2011. Compared with First Nations communities across Canada, the average CWB scores have consistently been higher in the Atlantic region.

Figure 2-7 Community Well-Being scores for Atlantic First Nations, non-First Nations and national First Nations communities (1981-2011)



Source: INAC, *The Community Well-Being Index: Report on Trends in First Nations Communities, 1981-2011* (2015)



2.8 CHILDREN IN CARE

Children in care refers to children age 18 years and younger in foster care, group homes, institutions, and kinship care. In 2013-2014, about 7% of Atlantic region First Nations children living on-reserve were in care, compared with 5% of First Nations children living on-reserve in Canada. Most First Nations children in care in the Atlantic region were in foster care (68%), followed by kinship care (28%)¹⁶.

In 2011, out of all children aged 14 and younger in foster care in Canada, 48% of children were Aboriginal. This corresponds to 4% of the entire Aboriginal child population being in foster care nationally, compared with 0.3% of non-Aboriginal children¹⁷.



SECTION 3: PHYSICAL ENVIRONMENT

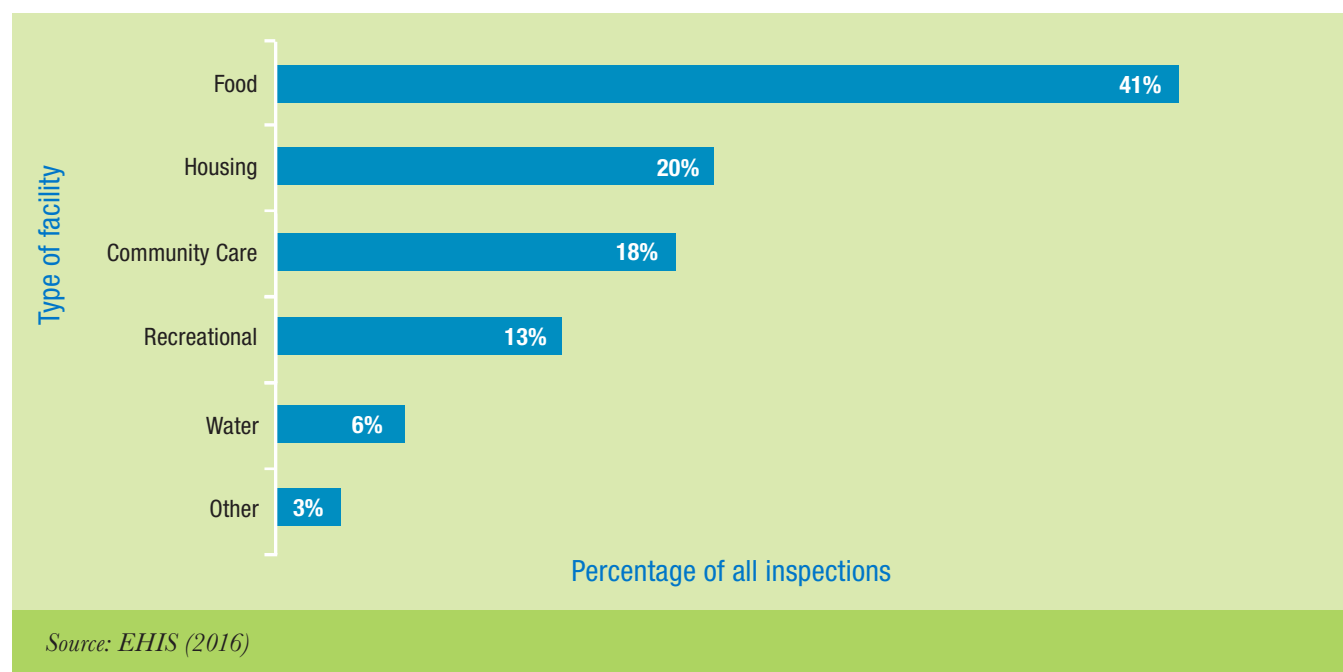
The homes and neighbourhoods we live in, and the water systems we use, are part of our physical environment, an important determinant of health⁵. When the conditions of these spaces and structures are functioning and have been designed well, they support us in living healthy lives. However, when the conditions are not of good quality, they can impact our health in many direct and indirect ways. For example, exposure to damp conditions and mold has been linked to many adverse health conditions like asthma, coughing, headaches and allergic reactions¹⁸.

In the Atlantic region, the Environmental Public Health Program works with Atlantic First Nations and other partners and stakeholders to contribute to activities that prevent or mitigate conditions that negatively affect environmental public health. Some of this work involves Environmental Health Officers (EHOs) performing both routine and requested inspections and assessing to see if community facilities meet quality standards and are safe places for people to prepare food, take their children for care or to reside in. They also monitor water quality around the region through routine sampling. If environmental public health risks are identified, EHOs recommend control or corrective measures which may be put into place by community leaders and residents¹⁹.

3.1 ENVIRONMENTAL INSPECTIONS

In 2014-2015, 279 health inspections were completed in the Atlantic region. Thirty-eight percent of inspections were conducted at permanent food facilities. This was followed by housing inspections (20%) and childcare facilities (13%). About three-quarters of all inspections were routine (74%) while the remainder were requested (26%; Figure 3-1).

Figure 3-1 Percentage of environmental inspections, by type of facility (2014-2015)



Food = Permanent (e.g., restaurants, cafeterias, kitchens) and seasonal/temporary sites (e.g., mobile food services, event-specific food preparation)

Housing = Includes all housing types (e.g., apartments, detached homes, etc.)

Community care = Facilities providing care services or activities for communities (e.g., schools, shelters, childcare centres)

Recreational = Facilities providing recreational services (e.g., community halls, playgrounds, gyms, swimming pools)

Water = Public water systems, wastewater treatment plants, wells

Other = Other public facilities (including health centres and offices)

Over the past five years, there has been an increase in the number of routine inspections performed annually, increasing by 2.5 times from 84 inspections in 2010-2011 to 207 in 2014-2015. The number of requested inspections fluctuates yearly, based on community needs, and ranges from 26% to 76% of annual inspections during this time span.

3.2 HOUSING

3.2.1 Housing Conditions

At FNIHB, the Environmental Public Health Program supports interdisciplinary responses to public health risks associated with housing. EHOs conduct public health inspections of new and existing housing, on request or complaint.

In 2014-2015, there were 55 housing inspections requested among First Nations communities in the Atlantic region. The four most common housing issues identified were in the following categories:

- Humidity/ventilation (75%)
- Walls, baseboards, joints and ceilings (61%)
- Small area of mold ($< 1 \text{ m}^2$) (54%)
- Roof/siding/eavestroughs/downspouts/soffit and fascia (44%)

Source: EHIS (2016)

3.2.2 Crowding

Crowding can be defined as having more than one person per room in one home²⁰. In 2011, 8% of First Nations people living on-reserve in Atlantic Canada experienced crowding. This is approximately eight times higher than crowding in the general Atlantic population.

3.2.3 Mold

In 2014-2015, there were just under 50 housing inspections conducted which included assessments for mold. The majority of inspections had satisfactory results for extensive and moderate mold areas (82%). Of inspections assessing small mold areas, 54% of inspections were unsatisfactory²¹.

Table 3-1 Percentage of satisfactory housing assessments by mold area (2014-2015)

	Satisfactory
Extensive Mold (> 3 m ²)	82%
Moderate Mold (1-3 m ²)	82%
Small Area Mold (< 1 m ²)	46%

Source: EHIS (2016)

It is difficult to accurately compare mold inspection results over time as housing inspections are done by request and therefore community needs determine the number of assessments done annually. The number of housing inspections which assessed mold ranged from 46 to 329 inspections per year in the last three years. Communities can request individual housing inspections or inspections for many homes based on their public health priorities (e.g., aging housing).

3.3 WATER QUALITY

Is the Water Safe to Drink?

Water quality is measured through sampling procedures done by EHOs and CBWMs. Water samples that do not meet the Canadian Drinking Water Quality Guidelines²² are considered to be unsatisfactory. Water contaminants can be classified as microbiological, chemical or radiological in nature. The aesthetic quality of water (e.g., taste, colour) is also factored into account when assessing water quality²³.

Water quality is assessed in three types of water systems. In 2014-2015, the majority of Atlantic samples came from community water systems (96%), with the rest sampled from individual water systems (3%) and semi-public water systems (1%).

3.3.1 Bacteriology Assessments

A key indicator in bacteriological water monitoring is the total coliforms found in water. This measurement includes a wide variety of bacteria (coliforms) and is used to assess the quality of drinking water at different stages in the water treatment process. Unsatisfactory results indicate that further investigation or action should be taken²⁴.

In 2014-2015, over 99% of water samples tested met bacteriological water quality standards. There were 8,897 samples assessed in this year, from community, semi-public and individual water systems.

Over the last five years,

- The number of water samples being taken has increased by 8%
- The percentage of samples that were bacteriologically unsatisfactory range from 0.7% in 2013-2014 to 1.1% in 2010-2011

Figure 3-2 Percentage of bacteriologically unsatisfactory water samples, all coliforms (2010/11-2014/15)



Source: WaterTrax (2016)

Escherichia coli (*E. coli*) is a particularly important bacterium to regularly monitor in drinking water. If *E. coli* is confirmed to be present in a treated water source, remedial strategies, such as Boil Water Advisories, must be put into place due to the potential risk to human health²⁵.



In 2014-2015, there were eight water samples which were deemed unsatisfactory for *E. coli*. This number remains unchanged from 2013-2014, but is higher than in years prior.

Table 3-2 Number of water samples exceeding total coliform levels or detecting presence of *E.coli* (2010/11-2014/15)

		Number of unsatisfactory results	
Year	Number of samples	Total coliforms	<i>E. coli</i>
2010-2011	8208	89	1
2011-2012	8022	66	6
2012-2013	8214	58	4
2013-2014	9770	67	8
2014-2015	8897	83	8

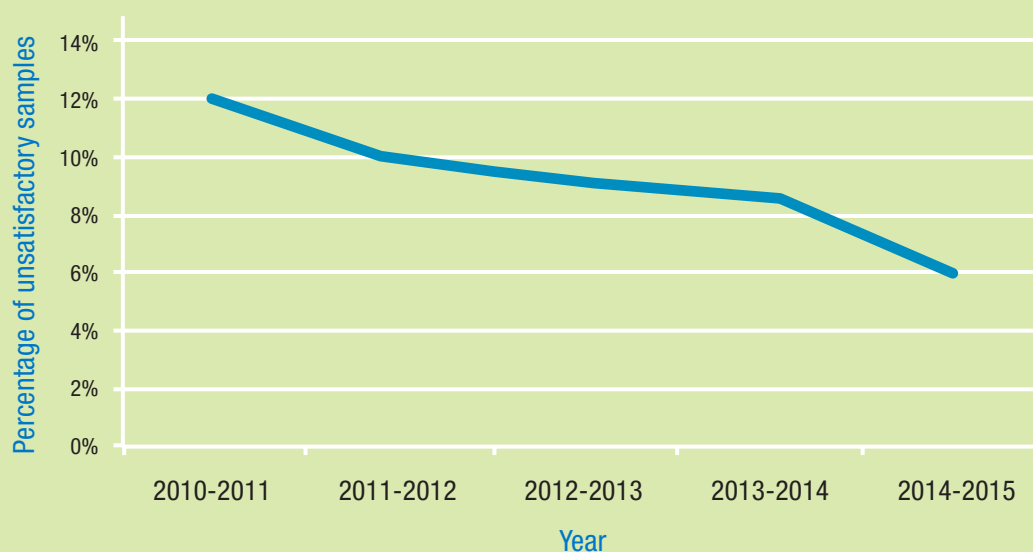
Source: WaterTrax (2016)

3.3.2 Chemical Reports

In 2014-2015, 6% of the 571 chemical samples that were taken from drinking water sources were deemed unsatisfactory.

In the past five years, there has been a steady decline in the percentage of water samples with unsatisfactory test results. It should be noted that one water sample may be used to test for a large range of chemicals, or just one chemical. This means that multiple unsatisfactory test results may be related to one water source at a given time.

Figure 3-3 Percentage of chemically unsatisfactory water samples* (2010/11-2014/15)



**Includes chemical and radiological samples Source: WaterTrax (2016)*

3.3.3 Drinking Water Advisories

Drinking Water Advisories (DWAs) are recommended by EHOs when water sampling reveals that water is unsafe to drink from the water source. DWAs include both Boil Water and Do Not Consume advisories that get lifted once the water quality is deemed to be satisfactory and the issues with the water system have been resolved.

In 2014-2015, there were nine DWAs affecting community and public water systems in seven Atlantic region First Nations communities. During this time, two DWAs were set, two were revoked, three were both set and revoked, and two were ongoing (i.e., set prior to April 2014

and ongoing past March 2015). When a community has a DWA it does not mean that the entire community was under a DWA. Rather, it means that at least one community water system or public water system within the community had an advisory.

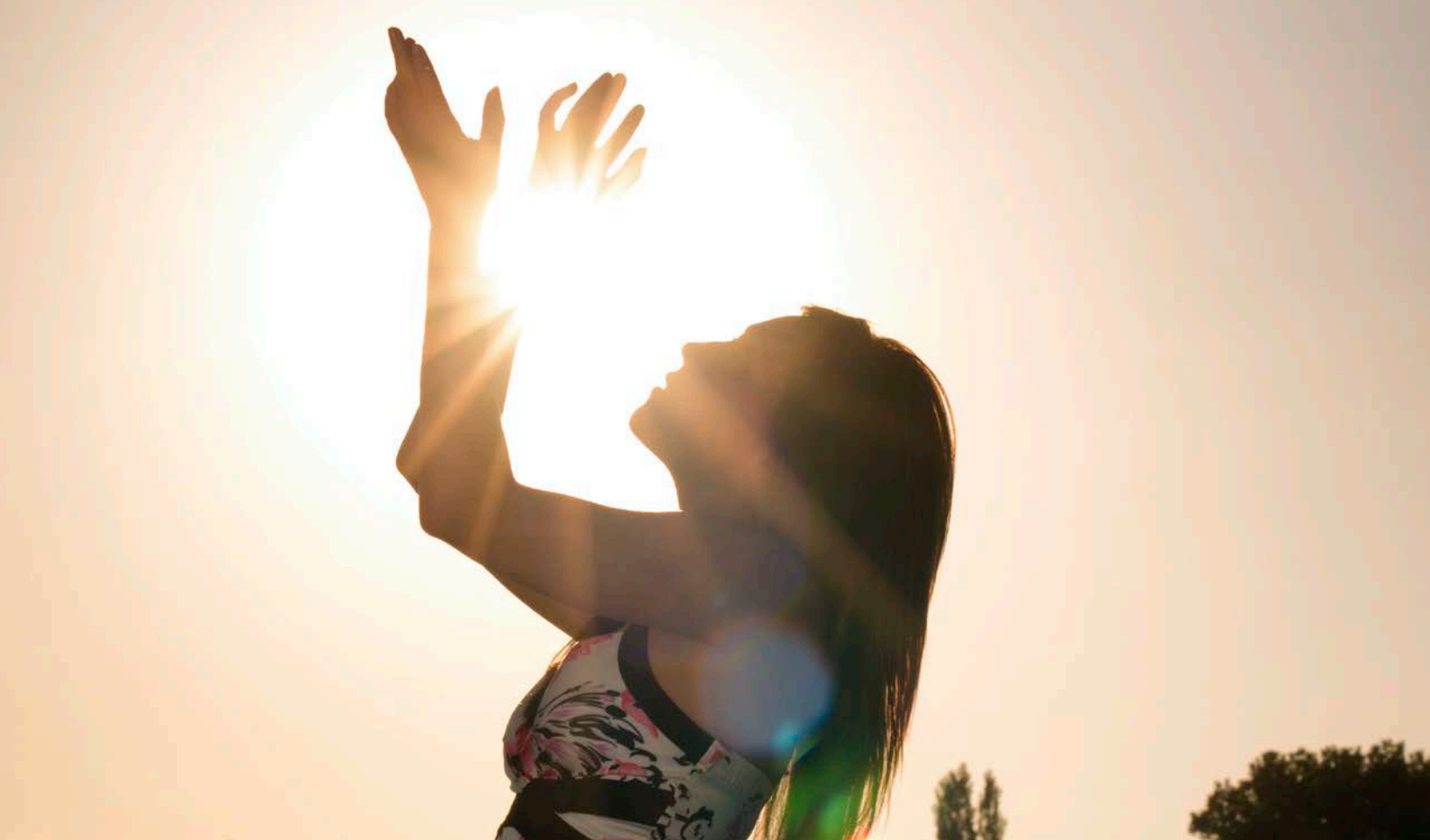
In the past five years, there have been 35 DWAs set in community and public water systems in Atlantic First Nations communities. During this time, 25 DWAs were in place for less than one year, and the remaining 10 exceeded one year (Figure 3-4).

Figure 3-4 Duration of Drinking Water Advisories (2010/11-2014/15)



From 2010 to 2015, the reasons most commonly cited for the recommendation of DWAs were:

- Equipment malfunction during treatment or distribution
- Inadequate disinfection or disinfection residuals
- Significant deterioration in source water quality
- Unacceptable microbiological quality



SECTION 4: PHYSICAL HEALTH

This section examines the physical health status of adults[§], youth and children.

4.1 MATERNAL AND CHILD HEALTH

4.1.1 Maternal Risk Factors

Smoking during pregnancy is associated with many negative health outcomes including: stillbirths, low birth weight, risk of Sudden Infant Death Syndrome, and risk of certain birth defects (i.e., cleft lip or cleft palate)²⁶.

Exposure to alcohol during pregnancy is linked with Fetal Alcohol Spectrum Disorder, which is a range of conditions that includes cognitive, behavioural, neurodevelopmental, physiological, or physical impairments that effect children over their lifespan. Use of illicit drugs during pregnancy can also have a variety of serious health consequences for pregnant women and their babies, which may affect them throughout their lifetime²⁷.

§ “Adults” are defined as those aged 18 and older in this report, unless otherwise noted

Teenage pregnancies are associated with health risks to mothers and their babies, including anemia in the mother, poor maternal weight gain, low birth weight, pre-term birth, and higher mortality rates. Teenage mothers are also at risk of having poorer educational outcomes²⁷.

Infants born to mothers who have gestational (or maternal) diabetes are at risk of having a high birth weight and of becoming obese and developing Type 2 diabetes later in life²⁸. Women who have gestational diabetes are also at risk of developing Type 2 diabetes after pregnancy.

From 2012-2013 to 2014-2015, the percentage of pregnant women who smoked or drank alcohol during pregnancy decreased while the percentage that used drugs and/or solvents increased (Table 4-1). There was an increase in women who had gestational diabetes and a decrease in mothers younger than 20 years of age.

Table 4-1 Pre-natal risk factors among Atlantic First Nations women on-reserve (2014-2015) and three-year trend (2012/13-2014/15)

Maternal risk factor	Prevalence (2014-2015)	Percentage difference (2012/13-2014/15)
Smoking	35%	5% ↓
Drugs and/or solvent use	14%	3% ↑
Alcohol use	8%	1% ↓
Gestational diabetes	8%	2% ↑
Maternal age < 20 years	13%	4% ↓

Source: Atlantic region CBRT reports (2012-2015)

4.1.2 Birth Rate

The birth rate for Atlantic First Nations people living on-reserve in 2014-2015 was 20 births per 1 000 people. This compares to 19 and 20 births per 1 000 people for the

previous two years²⁹. Birth rates for the general Atlantic region and general Canadian populations are much lower at 9 and 11 per 1 000 population, respectively³⁰.

The **birth rate** is calculated by dividing the number of live births by the population size. The birth rate is expressed as the number per 1 000 population per year.

4.1.3 Birth Weight

Seventy-six percent (76%) of infants born on-reserve in the Atlantic region in 2014 had a healthy birth weight, 6% were low birth weight, and 15% were high birth weight.

Low birth weight:	Less than 2 500g or 5lb 9oz
Healthy birth weight:	2 500g–4 000g or 5lb 9oz–8lb 11oz
High birth weight:	Greater than 4 000g or 8lb 11oz

By comparison, in 2012, among babies born in the general Canadian population, 83% had a healthy birth weight and 11% had a high birth weight³¹. Due to risk factors associated with high birth weight (e.g., diabetes, obesity through childhood to adulthood, and childbirth complications)³², the higher proportion of Atlantic Region First Nations babies born who weighed over 4000g (8lb 11oz) at birth is of concern.

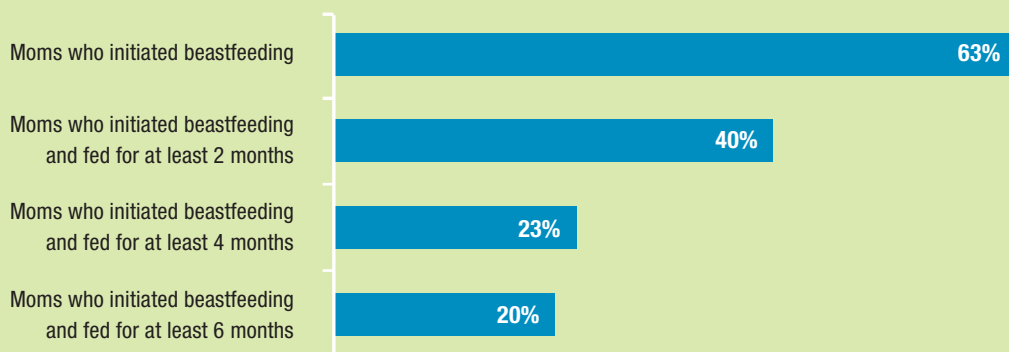
4.1.4 Breastfeeding

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 recognized as the natural and preferred method of feeding infants^{33,34}.

In 2014-2015, about 63% of mothers in Atlantic region First Nations communities initiated breastfeeding. Of the moms who initiated breastfeeding, 40% continued for two months, 23% for four months, and 20% for at least six months (Figure 4-1). Refer to Table 4-2 for the three-year trend.

The rate of breastfeeding initiation for Atlantic region First Nations communities is lower than the national rate, where 90% of Canadian women reported initiating breastfeeding and 24% breastfed exclusively for at least six months³⁵.





Figure 4-1 Percentage of Atlantic First Nations mothers on-reserve by breastfeeding duration (2014-2015)



Source: Atlantic region CBRT reports (2014-2015)



Table 4-2 Breastfeeding initiation and duration rates for Atlantic First Nations mothers on-reserve (2014-2015) and three-year trend (2012/13-2014/15)

Breastfeeding duration	Prevalence (2014-2015)	Percentage difference (2012/13-2014/15)
Moms who initiated breastfeeding	63%	1% 
Moms who continued for at least 2 months	40%	4% 
Moms who continued for at least 4 months	23%	2% 
Moms who continued for at least 6 months	20%	5% 

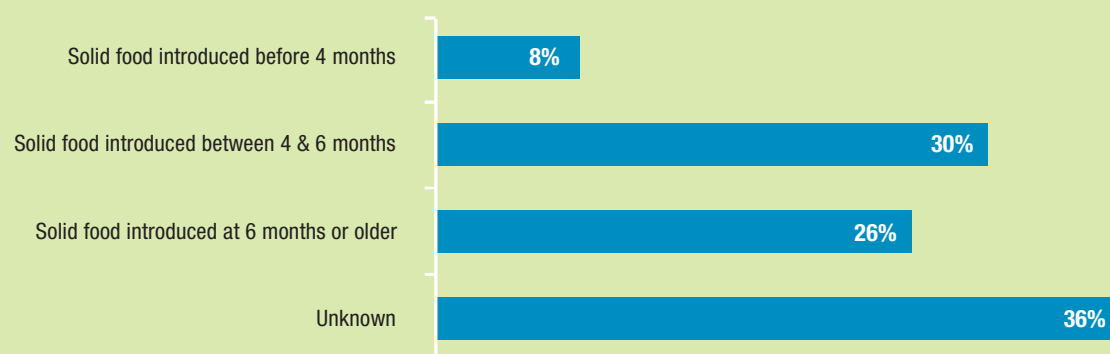
Source: Atlantic region CBRT reports (2014-2015)

4.1.5 Introduction to Solid Foods

It is recommended that solid foods be introduced at six months of age with continued breastfeeding for two years and beyond^{30,34}. If the child is formula-fed rather than breastfed, they should continue with formula feeding at six months along with solid foods. Delaying the introduction of solid food reduces the risk of a child being obese or overweight by age 10³⁴.

Approximately 25% of babies born in Atlantic region First Nations communities in 2014-2015 were introduced to solid food at six months or older (Figure 4-2).^{**}

Figure 4-2 Percentage of Atlantic region First Nations babies on-reserve introduced to solid food, by age (2014-2015)



Source: Atlantic region CBRT reports (2014-2015)

Over the past three years, the percentage of babies introduced to solid food:

- Before four months of age increased by 2%
- Between four and six months of age decreased by 7%
- At six months or older was consistent at approximately 25%

Source: Atlantic region CBRT reports (2014-2015)

^{**} Among the babies for whom the age at which they were introduced to solid food is known.



4.2 PHYSICAL ACTIVITY

Physical activity has been shown to have a wide range of positive health effects. People who participate in regular physical activity are less likely to get cardiovascular disease, diabetes, cancer and other physical diseases³⁶. Also, there are numerous psychological benefits related to physical activity, including reduced stress and anxiety³⁶.

Nationally, a higher percentage of First Nations adults who were active also:

- Reported being in excellent health (compared to very good/good/fair or poor health)
- Had lower Body Mass Indexes
- Felt more control over their own life (compared to less control)³⁷

Incorporating physical activity into daily routines is a great way to see these benefits.

4.2.1 Routine Activities

It is recommended that adults between the ages of 18-64 get at least 150 minutes of moderate to vigorous intensity physical activity each week to achieve the physical and psychological health benefits associated with exercise³⁸.

When First Nations adults living on-reserve in the Atlantic region were asked about their everyday routines, about 50% said their routines involved 35 minutes or more of moderate activity daily. This proportion was different between males and females; a greater percentage of males (57%) reported 35 or more minutes of moderate activity each day, compared with females (45%).

Table 4-3 Daily routines reported by Atlantic First Nations adults on-reserve, by sex (2008-2010)

	Male	Female	Overall
Most of day is spent sitting	15%	15%	15%
Most of day is spent sitting but at least 30 minutes of physical activity are done at least once a week	29%	40%	35%
Daily routine involves 35 or more minutes of moderate activities a day (walking, swimming, biking, etc.)	57%	45%	50%

Source: UNSI, Atlantic roll-up of 2008-2010 RHS data (2016)

It is recommended that youth between the ages of 12-17 get at least 60 minutes of moderate to vigorous intensity physical activity each week. Limiting recreational screen time to two or less hours per day is also recommended³⁸.

Daily activity levels are similar for Atlantic region First Nations youth living on-reserve. Among those aged 12 to 17 years, over half reported that their daily routine involved moderate-intensity activities for at least 30 minutes per day. There were not large differences observed between males and females.

Table 4-4 Daily routines reported by Atlantic First Nations youth (12-17 years) on-reserve (2008-2010)

	Overall
Most of day is spent sitting	14%
Most of day is spent sitting but at least 30 minutes of physical activity are done at least once a week	31%
Daily routine involves 30 or more minutes of moderate activities a day (walking, swimming, biking, etc.)	55%

Source: UNSI, Atlantic roll-up of 2008-2010 RHS data (2016)

4.3 CHRONIC DISEASES

4.3.1 Risk Factors for Chronic Disease

Body Mass Index

Being overweight or obese puts people at a higher risk for a range of chronic diseases, including hypertension, coronary heart disease, Type 2 diabetes, stroke and others⁴⁰. Body mass index (BMI) describes the relationship between weight and height and is used to categorize adults as underweight, overweight, or obese³⁹.

Health Canada BMI categories align with international standards. For adults (18 years and older), the following are the classification groups for BMI³⁹:

<18.5 = Underweight

18.5 – 24.9 = Normal range

≥ 25 = Overweight

≥ 30 = Obese

Among Atlantic region First Nations adults living on-reserve, approximately one-quarter were reported to be within the normal range or underweight (24%), 37% were overweight and 39% were obese¹.

These trends were similar nationally, with 24% of First Nations living on-reserve falling within normal BMI range (1% were underweight), and 40% were obese³⁷.

In 2014, the percentage of adults reporting to be overweight in the four Atlantic provinces was comparable, ranging from 35% to 38%. However, the percentage of adults who are obese was lower, with a range from 24% to 30%³⁵.

Smoking and Smoking Cessation

Adults

Over half (55%) of Atlantic region First Nations adults living on-reserve reported currently smoking. About 47% said they smoked daily, and 8% said they smoked occasionally. Rates did not differ appreciably between males and females.

Table 4-5 Percentage of First Nations adults on-reserve reporting current, daily and occasional smoking (2008-2010)

	Atlantic	Canada
Current smoker	55%	57%
Daily smoker	47%	43%
Occasional smoker	8%	14%

Source: UNSI, Atlantic roll-up of 2008-2010 RHS data (2016); FNIGC, 2008-2010 RHS National Report (Adults) (2012)

The smoking rate among Atlantic First Nations adults living on-reserve was more than double the rate in the general Atlantic population. The percentage of people aged 15 and over reporting being a current smoker ranges from 17% to 20% across the four provinces⁴¹.

Youth

Among Atlantic First Nations youth living on-reserve aged 12 to 17, 22% reported being current smokers. Rates were similar between males and females¹. Nationally, First Nations youth living on-reserve reported higher rates of current smoking, with one third (33%) of youth being current smokers. Approximately 20% of youth were daily smokers; more females reported smoking daily (25%) compared with males (16%)⁴².

Table 4-6 Percentage of First Nations youth on-reserve (12-17 years) reporting current, daily and occasional smoking (2008-2010)

	Atlantic	Canada
Current smoker	22%	33%
Daily smoker	17%	20%
Occasional smoker	5%	13%

Source: UNSI, Atlantic roll-up of 2008-2010 RHS data (2016); FNIGC, 2008-2010 RHS National Report (Youth) (2012)

In the general Atlantic population, the smoking rate among youth is lower, with 10-12% of youth aged 15 to 19 reporting being current smokers⁴¹.

Smoking Cessation Products

Smoking cessation products include a range of nicotine replacement therapies which can help people to quit smoking. Products such as Nicoderm®, Nicorette®, Champix®, and Zyban® can be used and are funded by NIHB.

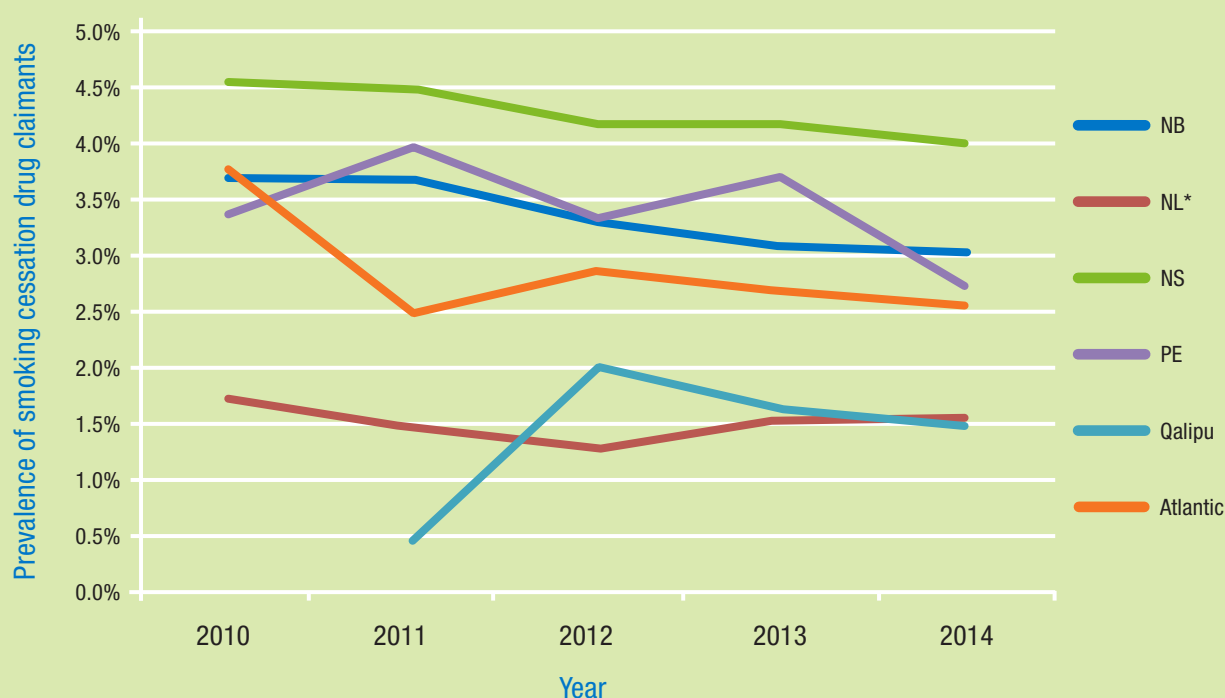
In 2014, about 3% of Atlantic region band members made one or more claim(s) for smoking cessation products. The highest prevalence of claims was in Nova Scotia (4%), and the lowest was among both the Qalipu and in Newfoundland and Labrador.

In the past five years, the prevalence of smoking cessation claimants in the Atlantic region has been decreasing. Overall, the prevalence of claimants in the entire Atlantic region dropped by 1.2%.

During this five year period,

- Nova Scotia consistently had the highest prevalence of claimants
- Newfoundland and Labrador had the lowest prevalence of claimants
- The gap between the Qalipu and other First Nations claimants in Newfoundland and Labrador has decreased and prevalence rates were similar between the two groups in 2014

Figure 4-3 Prevalence of smoking cessation product claimants among Atlantic First Nations band members, by province (2010-2014)

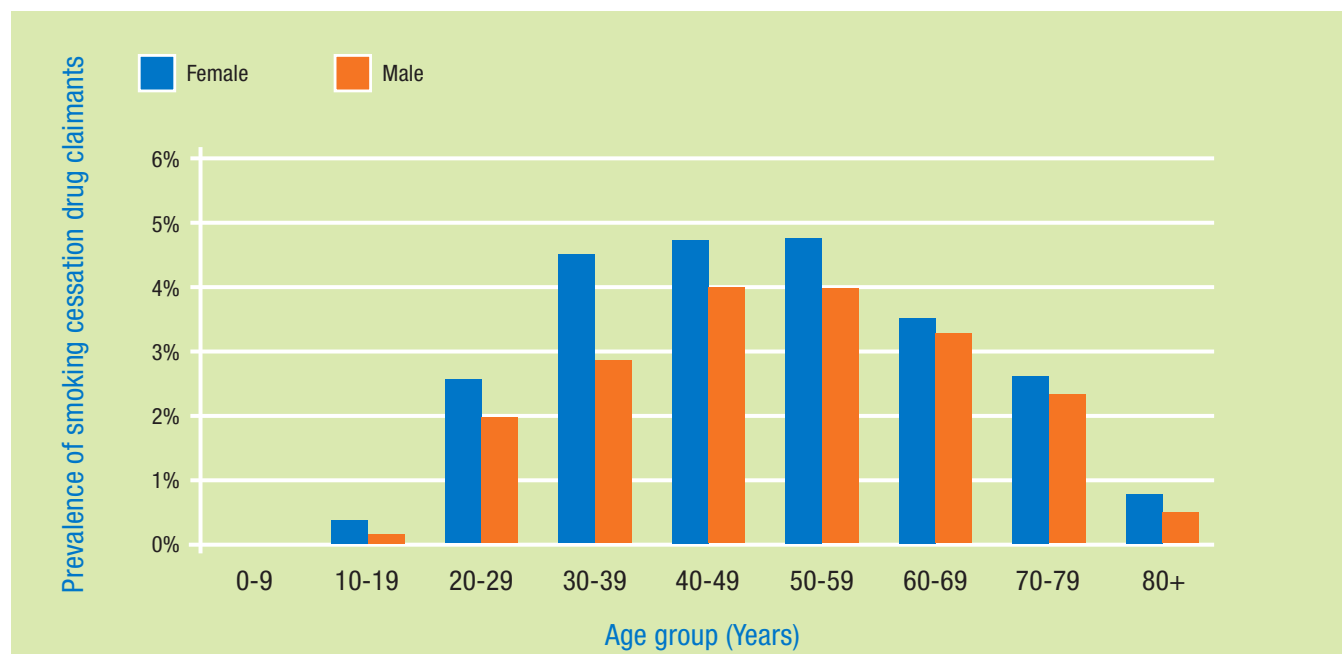


*NL = excluding Qalipu Source: NIHB pharmacy claims database (2016)

In 2014, the prevalence of smoking cessation product claimants increased with age, peaking within middle-aged First Nations band members, aged 40-60, at just under 4.5%. After this peak, the prevalence declined (Figure 4-4). Females consistently had higher claimant prevalence rates; this trend was also observed for the last five years. These findings were the same across all Atlantic provinces.



Figure 4-4 Prevalence of smoking cessation product claimants among Atlantic First Nations band members, by age and sex (2014)



Source: NIHB pharmacy claims database (2016)

4.3.2 Diabetes

Screening

Approximately 37% of First Nations adults living on-reserve in the Atlantic region reported having a blood sugar test in the previous 12 months. The proportion of testing increased with age, with 86% of adults 65 years and older reporting having done a glucose test in this time period¹.

FNIHB funds the Aboriginal Diabetes Initiative, which exists to improve the health of First Nations people living with Type 2 diabetes. In the Atlantic region in 2014-2015:

- 9% of the population received non-diagnostic diabetes screening(s)
- 9% of the population attended a diabetes education clinic

Source: Atlantic region CBRT reports (2014-2015)

Self-Reported Diabetes

About 14% of First Nations adults living on-reserve in the Atlantic region reported being diagnosed with diabetes by a health professional¹. A larger proportion of females reported having diabetes (16%) compared with males (12%). These trends were similar among First Nations people living on-reserve nationally³⁷.

Table 4-7 Self-reported diabetes rates in Atlantic and Canadian First Nations adults on-reserve (2008-2010)

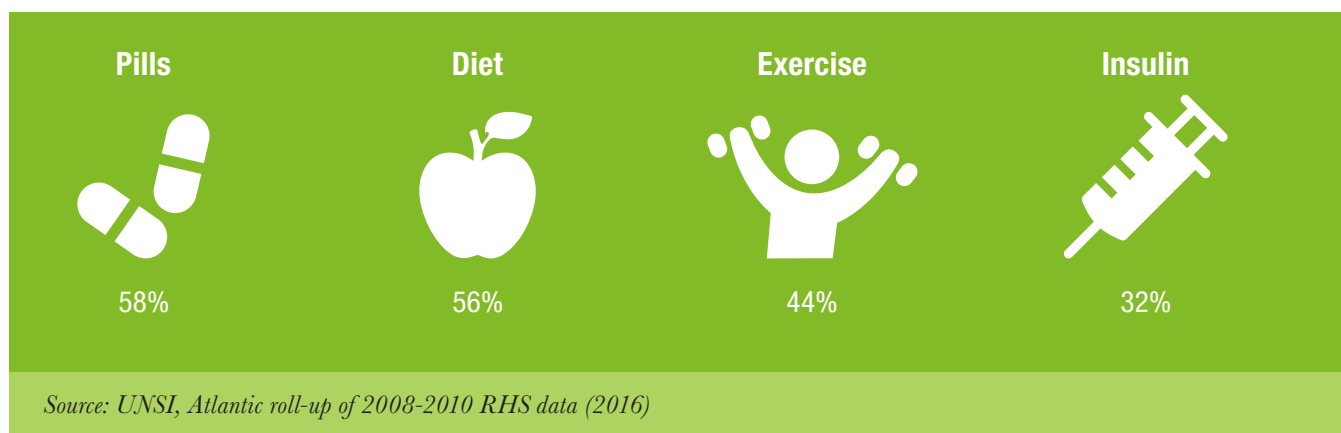
	Atlantic	Canada
Male	12%	16%
Female	16%	18%
Overall	14%	15%

Sources: UNSI, Atlantic roll-up of 2008-2010 RHS data (2016); FNIGC, 2008-2010 RHS National Report (Adults) (2012)

Among adults who reported being diagnosed with diabetes, 82% indicated that they were undergoing treatment. The two most common measures taken to manage diabetes were taking pills and through diet. A greater proportion of females than males reported modifying their behaviours through diet (61% vs. 50%) and exercise (47% vs. 40%)¹.



Figure 4-5 Self-reported methods of managing diabetes among First Nations adults living on-reserve (2008-2010)



Complications

Having diabetes can lead to other health complications, including problems related to vision, renal function and circulation. Approximately half (49%) of First Nations respondents living on-reserve in the region reported no complications, approximately one quarter (26%) reported one or two complications and one quarter (24%) reported having three or more complications. In the Atlantic region in 2014-2015, 6% of the population attended a foot care clinic.

Antidiabetic Medication Claims

As there is no formal objective diabetes surveillance system in place for First Nations people living on-reserve, antidiabetic medication claims processed through the NIHB program can be used as a way to estimate the number of people using antidiabetic medications in the region. See Chapter 1 data sources for limitations of using NIHB claims data.

In 2014, 8% of all Atlantic region band members made one or more claim(s) for antidiabetic medications. When comparing by province, the highest proportion of antidiabetic medication claimants was in Newfoundland and Labrador (excluding the Qalipu), with 10% of band members making one or more claims for antidiabetic medications. The lowest percentage of claimants was in Prince Edward Island.

When these rates are compared with reported diabetes rates from the general Atlantic population (aged 12 and older), they are consistently higher for all four Atlantic provinces (Table 4-8).

Table 4-8 Prevalence of antidiabetic medication claimants among Atlantic First Nations band members and prevalence of self-reported diabetes in general Atlantic population, by province (2014), age standardized.^{††}

Province	Prevalence of antidiabetic medication claimants among Atlantic region First Nations band members	Prevalence of self-reported diabetes Atlantic region population**
NL	9.9%	6.5%
PE	6.8%	5.6%
NS	9.6%	6.0%
NB	6.9%	5.7%

**Age standardized to 1991 Census population **CCHS excludes on-reserve population*

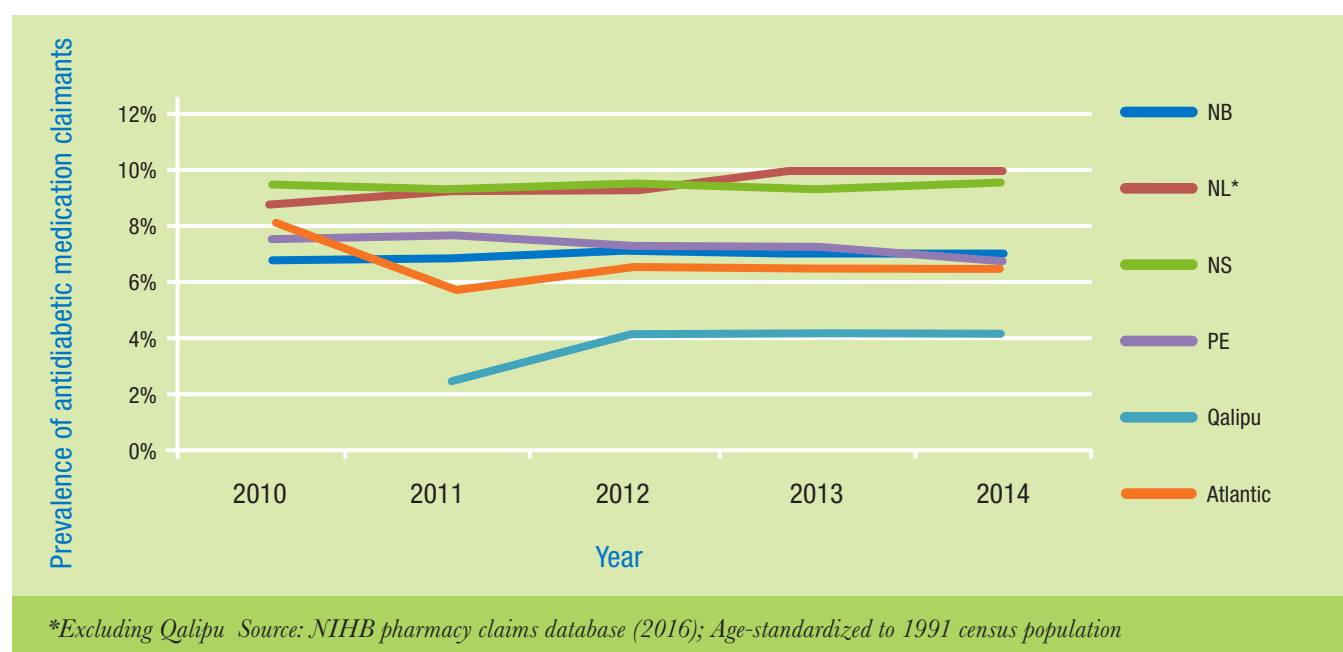
Sources: NIHB pharmacy claims database (2016); CCHS Annual Component (2014)

^{††} For information about age standardization, see section 1.6.

From 2010 to 2014,

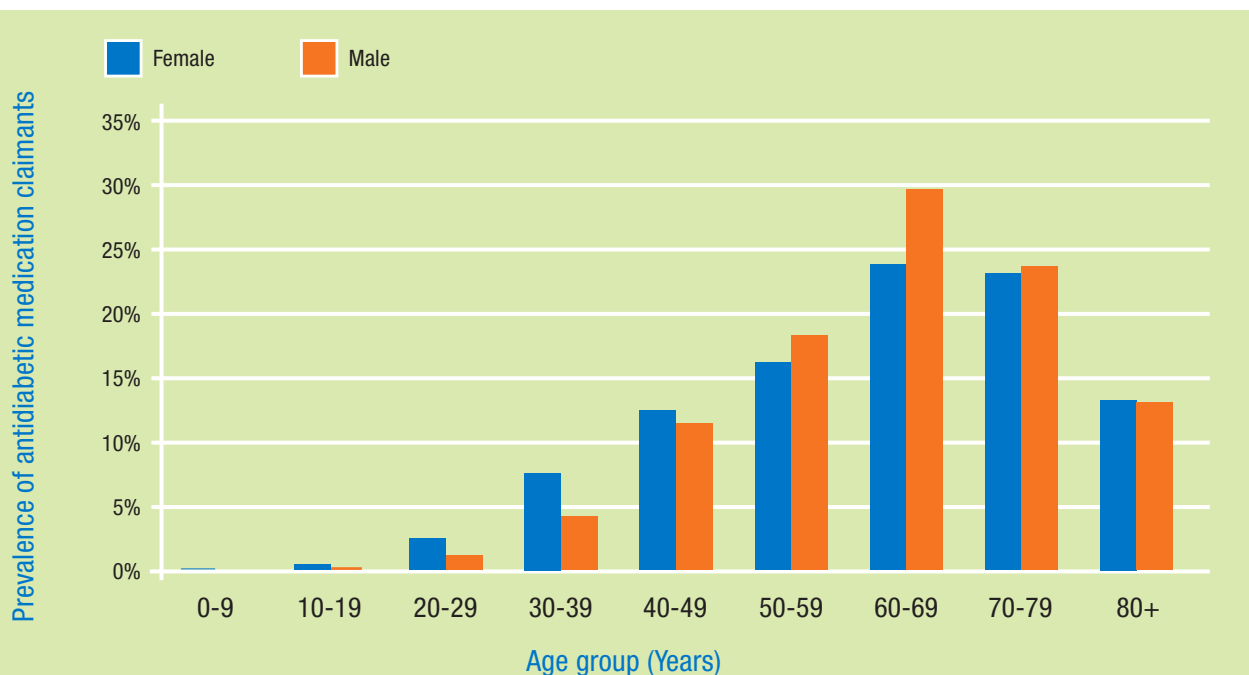
- All provinces saw slight increases in the prevalence of claimants, except for Prince Edward Island (slight decrease)
- Nova Scotia and Newfoundland and Labrador had the highest prevalence of claimants
- The Qalipu consistently had the lowest prevalence of claimants (this factor shifts the Atlantic average downwards from 2011 onwards)

Figure 4-6 Prevalence of antidiabetic medication claimants among Atlantic First Nations band members, by province (2010-2014), age standardized rates



In terms of age, the prevalence of antidiabetic drug claimants increased with age in 2014. The highest percentage of antidiabetic claimants was in the 60-69 age category (26%). A higher percentage of females compared with males were claimants up to the 40-49 year age category. Following this, the prevalence of claimants was higher among males. This trend may be reflecting the influence of gestational diabetes, as pregnant women with this condition are included in these data.

Figure 4-7 Prevalence of antidiabetic medication claimants among Atlantic First Nations band members, by age and sex (2014)



Source: NIHB pharmacy claims database (2016)

4.3.3 Cardiovascular Disease

Screening

Approximately 65% of First Nations adults living on-reserve in the Atlantic region reported having a blood pressure test within the last year. About 43% reported having a cholesterol test done in this same period of time. The proportion of adults reporting these screening tests increased with age. A greater proportion of females reported undergoing screening compared with males¹.

Table 4-9 Self-reported screening rates in past 12 months for Atlantic First Nations adults living on-reserve, by sex (2008-2010)

	Male	Female	Overall
Blood pressure test	61%	70%	65%
Cholesterol test	37%	48%	43%

Source: UNSI, Atlantic roll-up of 2008-2010 RHS data (2016)

These overall blood pressure and cholesterol screening rates are similar to national rates among First Nations adults living on-reserve at 64% and 38%, respectively. Across Canada, females also reported higher screening rates compared with males, and screening increased with age³⁷.

Self-Reported Heart Disease

About 7% of First Nations adults living on-reserve in the Atlantic region reported being diagnosed with heart disease by a health professional. This rate was higher in males (8%) than in females (6%)¹.

Nationally, approximately 6% of First Nations adults reported being diagnosed with heart disease. The prevalence of heart disease was also higher among males (7%) compared with females (4%). Approximately 80% of those with heart disease reported seeking treatment³⁷.

High Blood Pressure

High blood pressure was the most commonly reported health condition among First Nations adults living on-reserve in the Atlantic region. Approximately 23% of this group reported that a health professional has told them they have high blood pressure¹. Similarly, 22% of First Nations adults living on-reserve across Canada indicated they have high blood pressure³⁷.

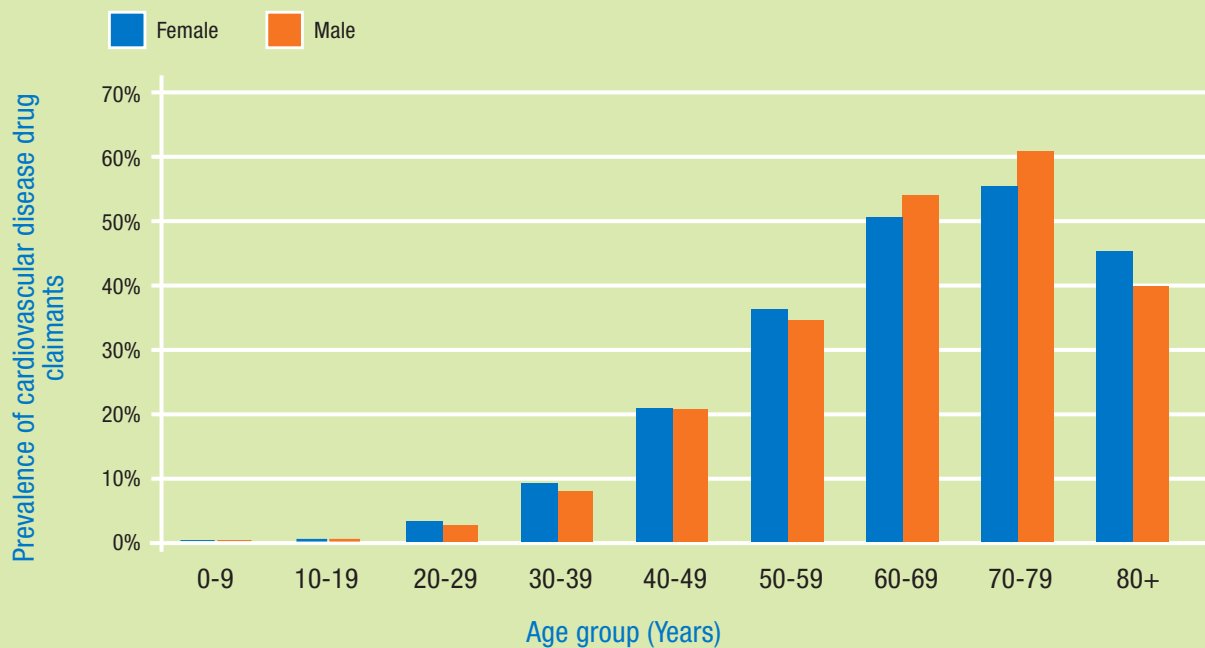
This is slightly higher than self-reported rates of high blood pressure in the general Atlantic population aged 12 and older. This proportion ranges from 14% in Nova Scotia to 19% in Newfoundland and Labrador³⁵.

Cardiovascular Drug Claimants

Cardiovascular drugs are commonly used in the primary and secondary prevention of cardiovascular conditions, like heart disease or stroke. Examples of drug groups used in the management of cardiovascular conditions include statins, beta blockers, aspirin and thiazide diuretics⁴³. These drugs are eligible under the NIHB program and the prevalence of use among First Nations band members (on- and off-reserve) can be calculated.

In 2014, approximately 16% of First Nations band members in the Atlantic region made one or more claim(s) for cardiovascular disease-related drugs. This percentage was slightly higher among females (17%) compared with males (15%). The prevalence of claimants by age group increased with age, with the majority of Atlantic band members aged 60 to 80 making claims.

Figure 4-8 Prevalence of cardiovascular drug claimants among Atlantic First Nations band members, by age and sex (2014)



Source: NIHB pharmacy claims database (2016)

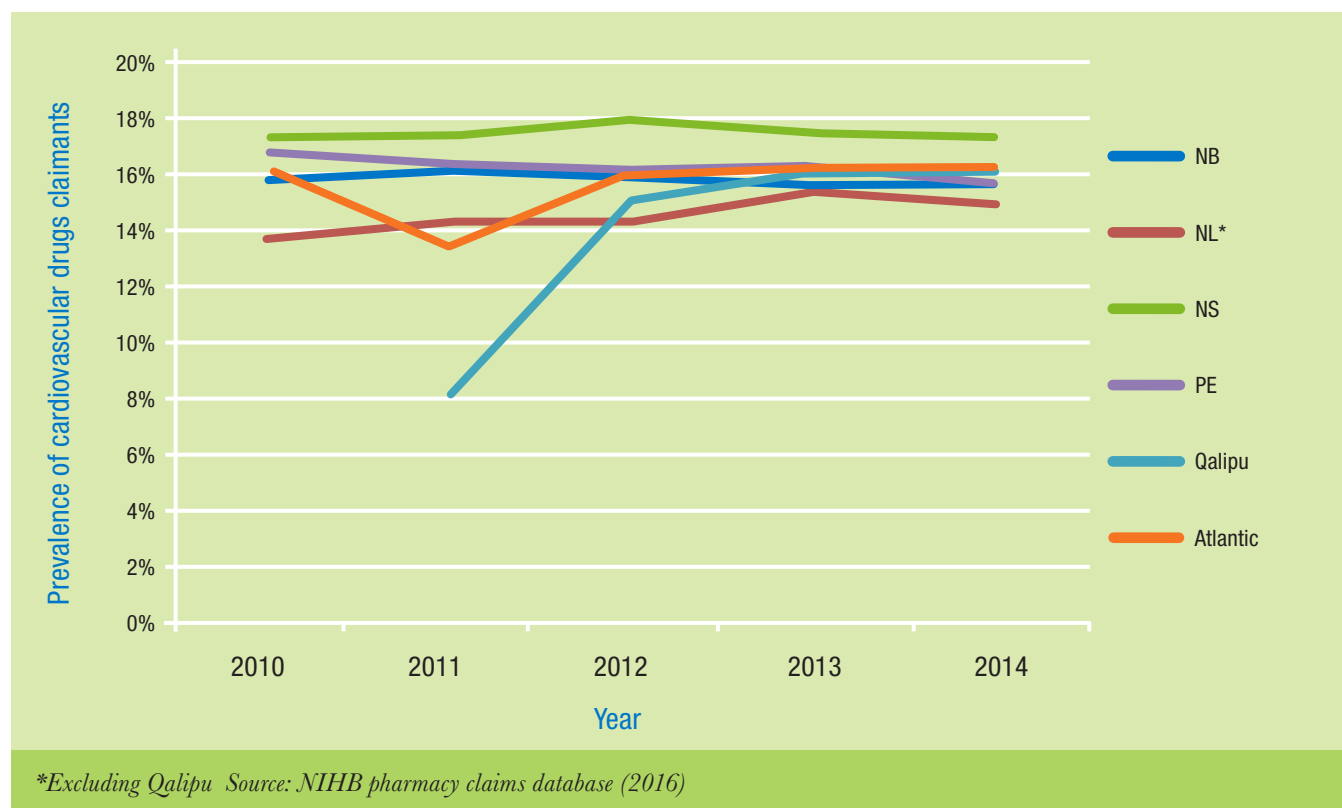
In the last five years, the prevalence of cardiovascular claimants has remained relatively stable in the region.

From 2010 to 2014,

- Nova Scotia consistently had the highest prevalence of cardiovascular drug claimants
- Newfoundland and Labrador showed the largest increase in claimant prevalence
- The Atlantic average declined in 2011 due to the addition of the Qalipu band; however, when the number of Qalipu claimants stabilized from 2012 onwards, the regional average reverted back to 16%



Figure 4-9 Prevalence of cardiovascular drug claimants among Atlantic First Nations band members, by province (2014)



4.3.4 Respiratory Disease

Asthma

Approximately 11% of Atlantic First Nations adults living on-reserve report having been diagnosed with asthma¹. This proportion is close to the national rate for First Nations adults living on-reserve of 10%³⁷.

This is higher than the rates seen in the general Atlantic population, with self-reported asthma rates between 8-9% within the four provinces among those 12 and older³⁵.

Chronic Bronchitis

Approximately 5% of First Nations adults living on-reserve in the Atlantic region reported having been diagnosed with chronic bronchitis¹. Similarly, approximately 4% of First Nations living on-reserve in Canada report having this condition³⁷.

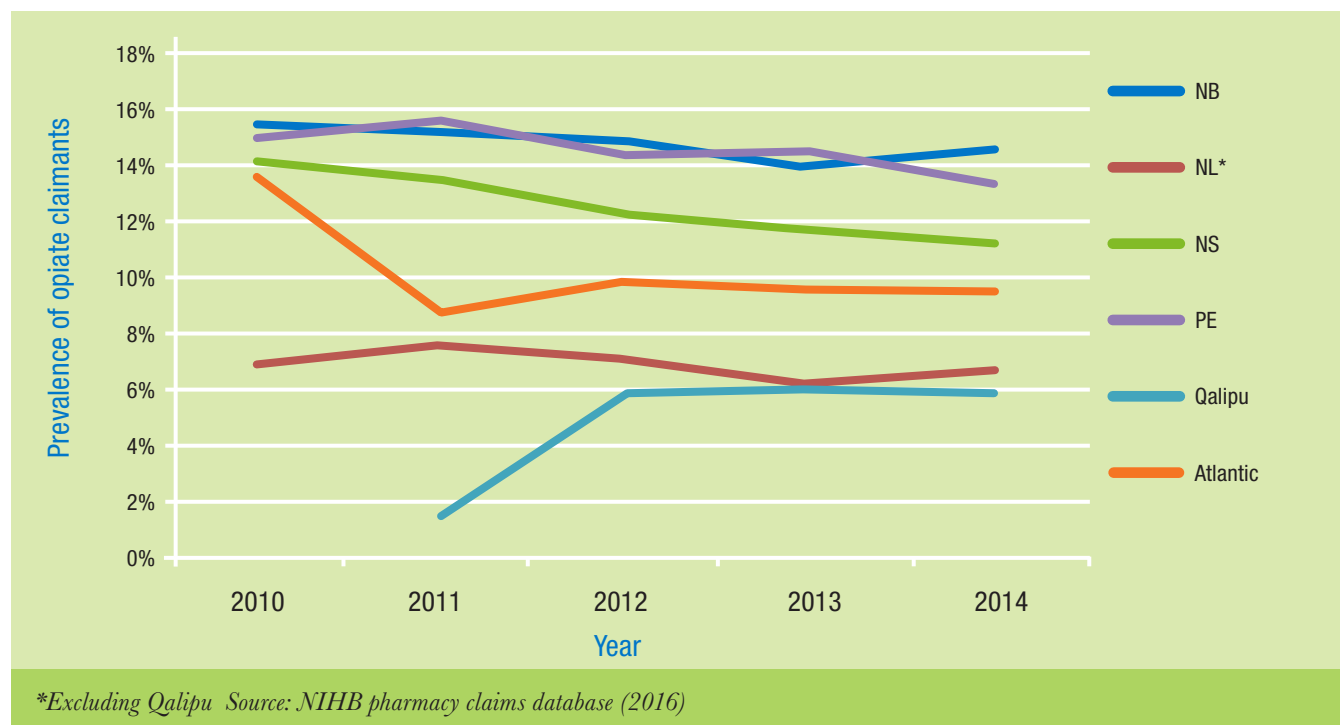
This is similar to trends seen in the general Atlantic population, with 4-6% of people 12 and older reporting having chronic obstructive pulmonary disease (COPD). COPD is a combination of chronic bronchitis and emphysema⁴⁴, meaning that these rates may underestimate the true prevalence of chronic bronchitis overall.

4.3.5 Pain Management

Opioid analgesics can be important therapeutic options for treating pain⁴⁵. Some opioids used to treat 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 opioids in certain health conditions, there is also a potential for abuse and misuse of these medications⁴⁶.

In 2014, approximately 9% of Atlantic band members aged 15 and older made one or more claim(s) for opioid medications. This is a drop of approximately 4% from 2010, largely due to the inclusion of the Qalipu in 2011 onwards (see Figures 4-10, 4-11).

Figure 4-10 Prevalence of opioid drug claimants among Atlantic First Nations band members (15+ years), by province (2010-2014)



Over the past five years, New Brunswick and Prince Edward Island had the highest claimant prevalence rates and Newfoundland and Labrador and the Qalipu had the lowest claimant prevalence rates. Nova Scotia saw the largest decline in prevalence of claimants (Table 4-10).

Table 4-10 Prevalence of opioid drug claimants among Atlantic First Nations band members (15+ years), by province (2014) and percentage difference (2010-2014)

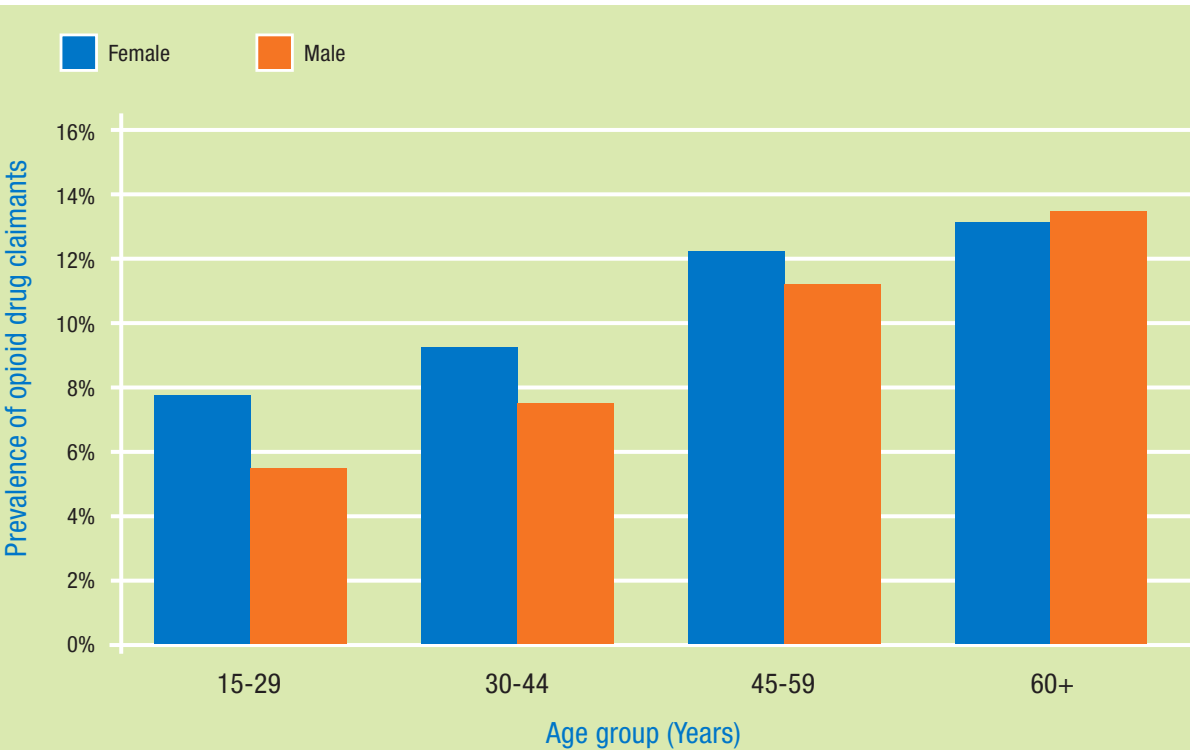
Province	Prevalence of opioid claimants among Atlantic region band members (2014)	Percentage difference (2010-2014)
NB	15%	1% ↓
NS	11%	3% ↓
PE	13%	2% ↓
NL*	7%	0%
Qalipu**	6%	0%

*Excluding Qalipu **Percentage difference from 2012-2014 Source: NIHB pharmacy claims database (2016)

In 2014, the claimant prevalence was slightly higher among females (10%) than males (9%). When broken down by age, the prevalence of opioid claimants in the Atlantic region consistently increases with age. However, when further broken down by province, New Brunswick, Nova Scotia and Prince Edward Island had prevalence rates highest among those 45-59 years of age, followed by a decline in those 60 years and older.

Overall, females had higher claimant prevalence rates compared with males in the Atlantic region. This was true among all provinces, except for Prince Edward Island where males had slightly higher prevalence rates.

Figure 4-11 Prevalence of opioid drug claimants among Atlantic First Nations band members (15+ years), by age and sex (2014)



Source: NIHB pharmacy claims database (2016)

4.4 SEXUAL HEALTH

Adults

About 81% of Atlantic First Nations adults living on-reserve reported being sexually active. The most common type of birth control/protection used was condoms (45%)¹.

Approximately 52% of Atlantic First Nations adults living on-reserve indicated using one or more methods exclusively for birth control (e.g., pills, injectable contraception, withdrawal, surgery or rhythm method). One third (33%) of respondents said they used condoms only. About 11% said they combined contraceptive methods with condom use (protective method).

When asked the reason for using these methods, almost half (48%) indicated they wanted to avoid pregnancy, 17% said to avoid sexually transmitted infections and 36% said it was for both. The main reason reported for not always using condoms was having a steady partner¹.

Nationally, condom use was also the most commonly reported form of contraception/protection reported among sexually active First Nations adults living on-reserve (38%). Approximately 64% of this group indicated using at least one form of birth control or protection. This proportion was higher among those who had graduated high school, compared to those who did not³⁷.

Youth

Among First Nations youth living on-reserve aged 12-17, 35% reported being sexually active. Condoms were the most common form of contraception/protection (83%)¹.

Among sexually active youth, approximately 56% used condoms only, and another 30% reported using condoms and other contraceptive methods (e.g., pills, injectable contraception, withdrawal, surgery or rhythm method). The reasons identified for using these methods were predominantly for both birth control and protection from sexually transmitted infections (64%), protection only (19%) and birth control only (17%).

Nationally, 28% of First Nations youth on-reserve aged 12-17 indicated being sexually active. Similar to Atlantic youth, condoms were the most common form of birth control or protection (79%)⁴².

4.5 NOTIFIABLE DISEASES

A notifiable disease is a communicable disease that is required by provincial and/or territorial legislation to be reported to provincial/territorial public health officials⁴⁷. In 2014, chlamydia and hepatitis C were the two most commonly reported communicable diseases for Atlantic region First Nations on-reserve.

Chlamydia is a sexually transmitted infection that if left untreated can lead to pelvic inflammatory disease, ectopic pregnancy, and infertility. There is a risk of pregnant women transmitting chlamydia to their babies during childbirth, which may lead to eye or lung infections in newborns. Additionally, untreated chlamydia infections can increase the likelihood of transmitting or becoming infected with HIV⁴⁸.

Hepatitis C is an infection of the liver that may cause loss of appetite, nausea, vomiting, stomach pain, fatigue, and jaundice (yellowing of the skin and eyes). Up to 85% of acute infections may lead to chronic infections, which can cause long-term complications such as cancer, liver cirrhosis (scarring), and liver failure⁴⁹.

4.5.1 Chlamydia

Chlamydia rates for Atlantic region First Nations on-reserve have steadily decreased since 2011 (Figure 4-12).

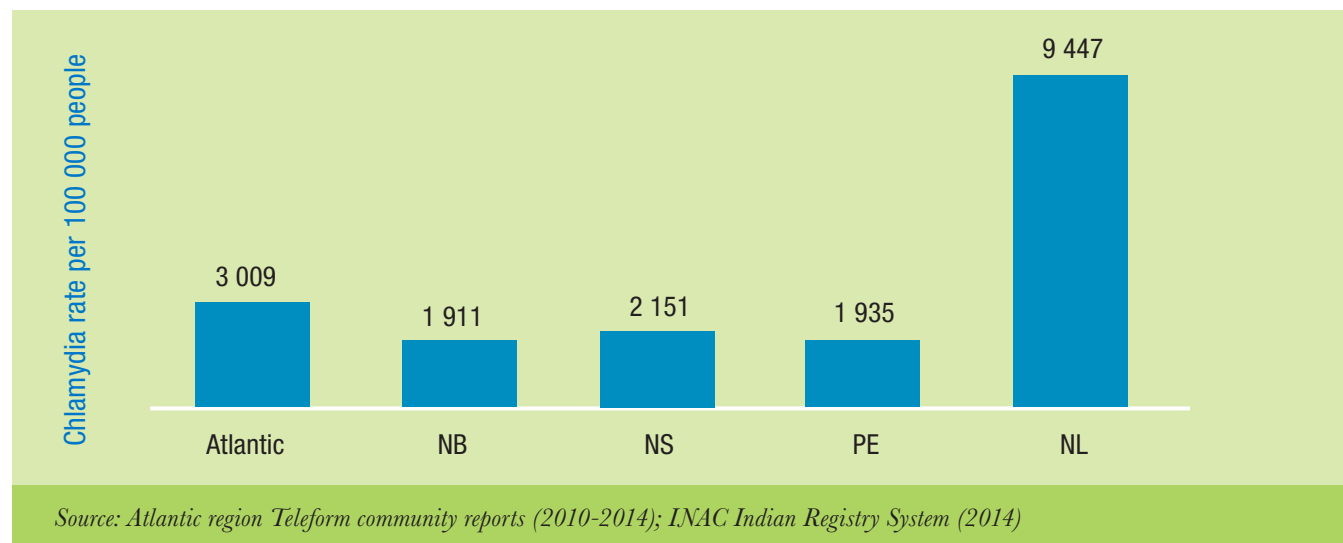
Figure 4-12 Chlamydia rates (per 100 000 people) among Atlantic First Nations on-reserve, by year (2010-2014)



Source: Atlantic region Teleform community reports (2010-2014); INAC Indian Registry System (2010-2014)

Due to small numbers, it is not possible to compare the rates between the Atlantic region and the provinces for each year. However, when the reported cases are added together for the five years, the rates can be reported as one rate for the years 2010-2014 grouped together. When compared this way, the rate of chlamydia in Newfoundland and Labrador is approximately four to five times higher than the rates in the other three provinces (Figure 4-13).

Figure 4-13 Chlamydia rates (per 100 000 people) among Atlantic First Nations on-reserve, by province (2010-2014)



The rates of chlamydia are decreasing, but are still higher for First Nations on-reserve than for the general Canadian population.

When adjusting for the difference in age structure^{**}, the difference in chlamydia rates per 100 000 people between First Nations on-reserve and general Canadian rates appears much smaller (Table 4-11). First Nations rates are noticeably higher for ages 15-19, as well as for ages 25-29 (Figure 4-14). Similar to the Canadian population, chlamydia rates are higher for females than for males.

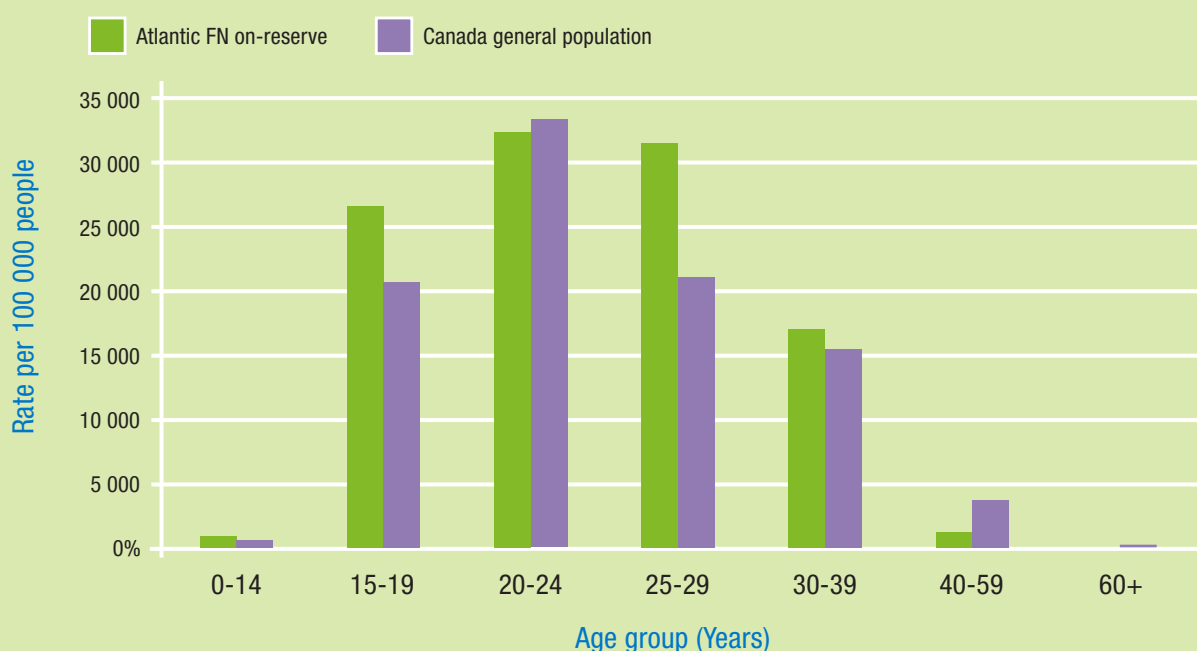
^{**} For information about age standardization, see section 1.6.

Table 4-11 Chlamydia rates (per 100 000 people) among Atlantic First Nations on-reserve (2014) and the general Canadian population (2013), crude and standardized rates

	Atlantic region First Nations on-reserve (2014)	Canada (2013)
Crude rate (not adjusted for age)	452	296
Age-standardized Rate	389	337

Source: Atlantic region Teleform community reports (2014); INAC Indian Registry System (2014); PHAC Notifiable Diseases Online (2016). Standardized to the 1991 Canadian Census population.

Figure 4-14 Chlamydia rates (per 100 000 people) among Atlantic First Nations on-reserve (2014) and general Canadian population (2013) by age

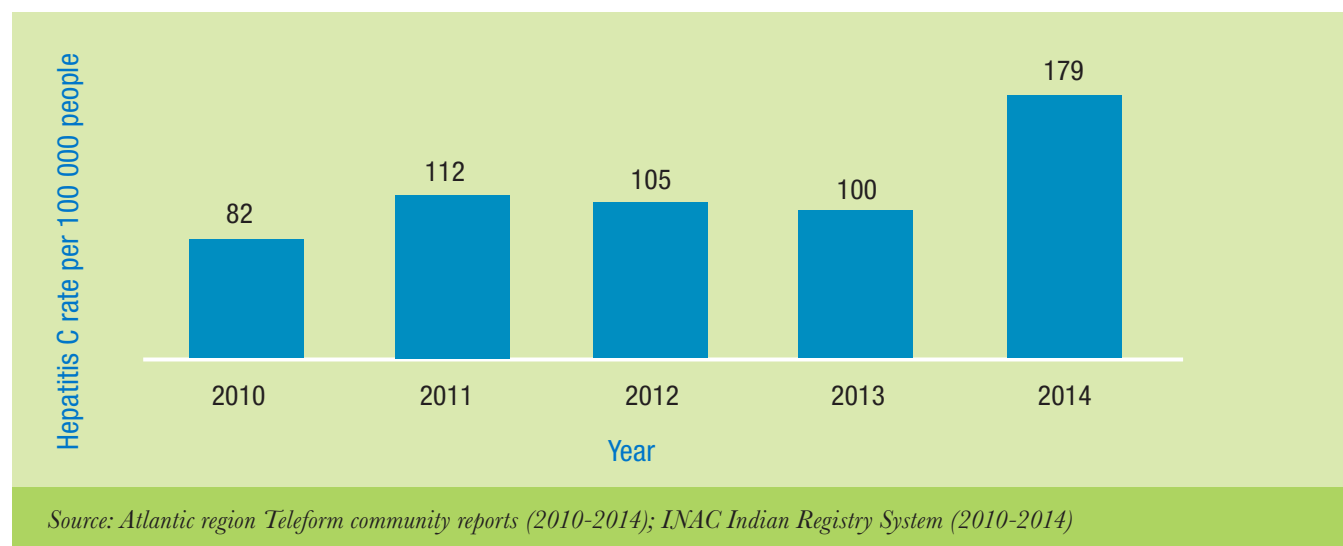


Source: Atlantic region Teleform community reports (2014); INAC Indian Registry System (2014); PHAC Notifiable Diseases Online (2016). Standardized to the 1991 Canadian Census population.

4.5.2 Hepatitis C

Hepatitis C rates for Atlantic region First Nations on-reserve increased dramatically in 2014 compared to the previous four years (Figure 4-15).

Figure 4-15 Hepatitis C rates (per 100 000 people) among Atlantic First Nations on-reserve, by year (2010-2014)



When adjusting for the difference in age structure, the hepatitis C rate per 100 000 people for First Nations on-reserve is 5.5 times higher than the general Canadian rate (Table 4-12). The numbers of cases are too small to report by age groups.

Table 4-12 Hepatitis C rates (per 100 000 people) among Atlantic First Nations on-reserve (2014) and the general Canadian population (2013), crude and age standardized rates

	Atlantic region First Nations on-reserve (2014)	Canada (2013)
Crude rate (not adjusted for age)	179	30
Age-standardized Rate	154	28

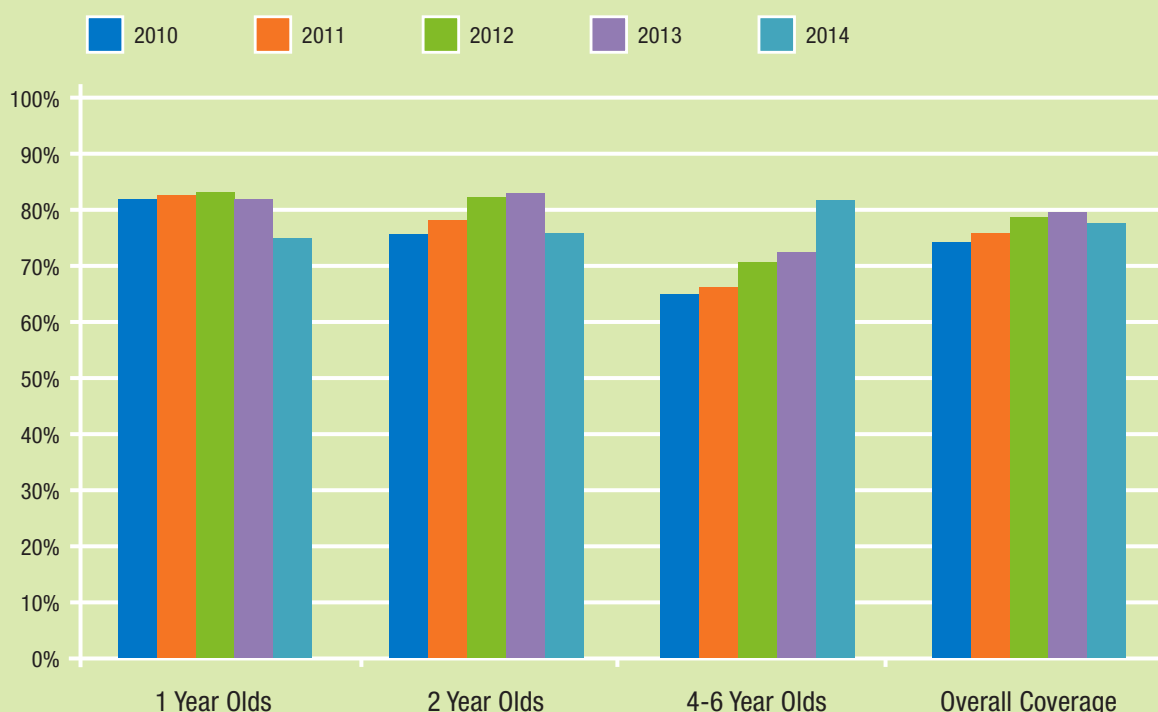
Source: Atlantic region Teleform community reports (2014); INAC Indian Registry System (2014); PHAC Notifiable Diseases Online (2016). Age-standardized to the 1991 Canadian census population

4.6 CHILDHOOD IMMUNIZATION RATES

“Immunization has probably saved more lives in Canada in the last 50 years than any other health intervention. Immunization is the single most cost-effective health investment, making it a cornerstone in the effort to promote health.”⁵⁰

From 2010-2013, immunization coverage rates for Atlantic region First Nations children living on-reserve increased for both overall coverage and for each age group (Figure 4-16). In 2014, this trend continued only for the 4 – 6-year olds with an increase of 9% from 2013 to 2014. In 2014, the overall immunization coverage rate was 78%, a decrease of approximately 2% since 2013. For both 1- and 2-year-olds, coverage decreased by approximately 7% from 2013-2014.

Figure 4-16 Immunization coverage rates for Atlantic First Nations children on-reserve, by age and year (2010-2014)



Source: Atlantic region Community Immunization Coverage Rate Reports (2010-2014)

It is important to note that all 33 First Nations communities in the Atlantic region collected immunization data and submitted coverage reports. While there was a slight decrease in overall coverage in 2014, the immunization coverage rates are high and it is important to monitor them to see that they continue to improve.



SECTION 5: MENTAL WELLNESS

In the First Nations Mental Wellness Continuum Framework, mental wellness is defined as “a balance of the mental, physical, spiritual, and emotional”⁵¹. In this report, we have incorporated the data that are available to describe mental wellness in Atlantic region First Nations.

5.1 CULTURE AND WELL-BEING

Culture is recognized as being foundational to supporting mental wellness. First Nations cultural values, sacred knowledge, language and practices are determinants of health and wellness at the individual, family and community levels⁵¹.

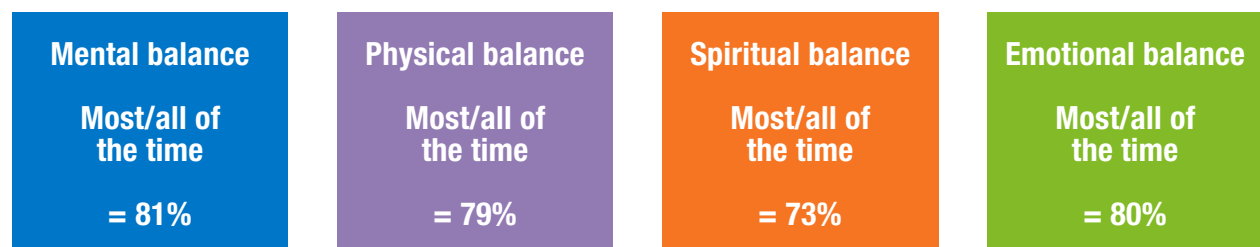
Atlantic First Nations adults living on-reserve who said that their community had four or more strengths^{§§} also reported having high self-ratings on a number of health indicators¹. For example,

- Over half (54%) reported their self-rated health as being “excellent” or “very good”
- Approximately 58% scored “low” on a psychological distress scale⁵²

Among adults who identified that their communities had six or more challenges^{***},

- Less than half (47%) reported their self-rated health as being “excellent” or “very good”
- Approximately 47% scored “low” on a psychological distress scale⁵²

In terms of personal balance, the majority of those who reported four or more community strengths reported feeling balanced across each of four domains:



The results were similar for those reporting six or more community challenges¹.

Control Over One's Life

Participation in cultural events was shown to be associated with higher perceived control over one's life. First Nations adults living on-reserve in the Atlantic region who “always” or “sometimes” participated in cultural events had an average score of 4.01 (out of 5), which is higher than the average score of 3.85 for those who “rarely” or “never” participated in cultural events¹. This finding is also apparent among First Nations adults living on-reserve in Canada^{37,†††}. Nationally, a lower percentage of those who participated in community cultural reported being depressed³⁷.

§§ Community strengths could include things like family values, social connections, traditional ceremonial activities, natural environment, good leisure facilities, use of First Nation language, strong leadership, awareness of First Nations culture, low rates of suicide/crime/drug abuse, education and training opportunities, elders and a strong economy.

*** Community challenges could include things like education and training opportunities, alcohol and drug abuse, housing, culture, natural environment/resources, health, funding, control over decisions, gang activity and employment.

††† The RHS is cross-sectional, meaning that everyone was asked all the questions at one time. Therefore, it is not possible to say that participating in cultural events means people feel they have more self-control, or if having higher perceived self-control makes people participate in more cultural events. However, we can say there is an association between the two measures.



Powwows

Powwows are annual social gatherings where First Nations people come together to celebrate and showcase cultural traditions⁵³. Mini-powwows are one day cultural events where drummers and dancers come together to promote culture and ceremony. They often take place at community colleges and universities in the Atlantic region.

Here are some personal reflections on the importance of Powwows from participants. Different perspectives are influenced by things like level and type of involvement within these cultural events.:

“Powwow for me was a spiritual awakening that was part of my healing journey.”

“The feelings I get are so overpowering. I get that sense of peace. I feel like I’m home. I feel the sense of well-being. When I hear the honour song my spirit bursts and I always seem to cry. When I hear the drum I always think of our mother earth’s heartbeat in which my mom had taught me. I feel the love of family which I call my friends and when I only see certain people during powow season it’s like we never were apart. I feel pride. I stand up straighter and I acknowledge the love of our creator...I just feel as one with our people...”

“Powwows help keep me connected to my culture and identity as an aboriginal person. There is nothing but positive energy surging through my body and I have no worries. The everyday worries and stressors do not exist.”

“Powwow is an essential part to healthy living due to the high level of physical activity our dance styles require. The leisure time that is needed to make our regalias and the positive quality of life that comes along with this is essential to our existence, honoring our past and ensuring a solid future of dignity for our youth and next generations.”

Alcohol Use

Of Atlantic region First Nations on-reserve who reported “almost” or “almost always” being involved in cultural events, 20% reported using alcohol weekly or more often. This percentage increased as frequency of events declined. About one-third of those who reported “rarely” (33%) or “never” (32%) attending events said they used alcohol weekly or more.

Binge drinking (having five or more drinks on one occasion) weekly or more frequently was reported by 23% of the adults who participated in cultural events the most frequently and by 31% among those who never participated. Nationally, this same trend was seen for weekly binge drinking³⁷.

5.2 MENTAL AND EMOTIONAL HEALTH

5.2.1 Self-Reported Psychological or Emotional Disorders

Approximately 3.5% of First Nations adults living on-reserve in Atlantic Canada reported having been told they have a psychological or nervous disorder by a health professional¹. This is similar to the national average of 3.3% for First Nations adults on-reserve³⁷.

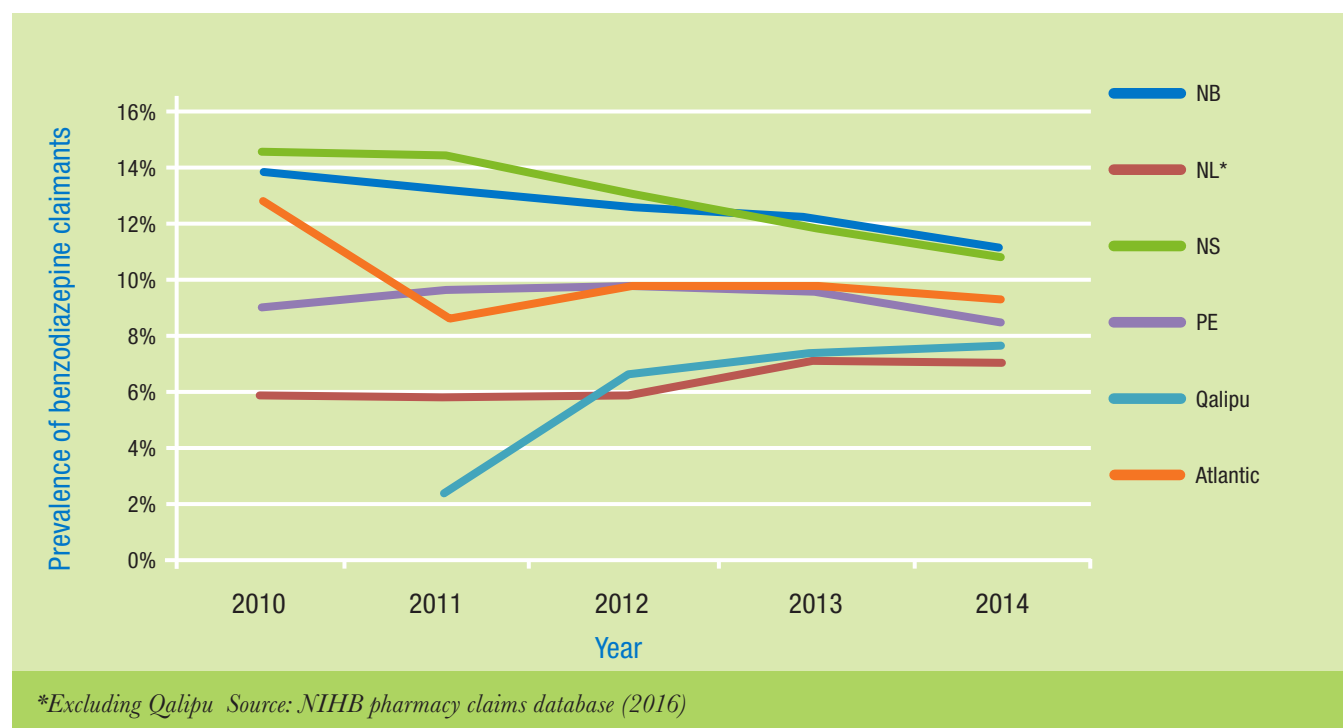
5.2.2 Benzodiazepine Use

Benzodiazepines can be useful for short-term treatment of anxiety, short-term treatment of insomnia, and as add-on maintenance therapy for managing seizure disorders⁵⁴. Some benzodiazepines used for short term treatment of anxiety are: alprazolam (Xanax®), diazepam (Valium®), lorazepam (Ativan®), oxazepam (Serax®), and bromazepam (Lectopam®)⁵⁴. Long-term use of benzodiazepines may lead to drug misuse and can have negative health consequences⁵⁵.

In 2014, approximately 9% of Atlantic region band members aged 15 years and older made one or more claim(s) for a benzodiazepine medication. This is a 4% decrease since 2010; this drop was largely influenced by the influx of the Qalipu from 2011 onwards (Figure 5-1).

When comparing benzodiazepine medication claimants among Atlantic provinces, the rates in New Brunswick and Nova Scotia are the highest, but they decreased steadily over the past five years. Newfoundland and Labrador had the lowest rate of claimants across all five years, however, this rate increased over time.

Figure 5-1 Prevalence of benzodiazepine medication claimants among Atlantic First Nations band members (15+ years), by province (2010-2014)



Over the past five years, the percentage of benzodiazepine claimants changed by 1% to 4% in each province. The largest decrease was seen in Nova Scotia (drop of 4%).

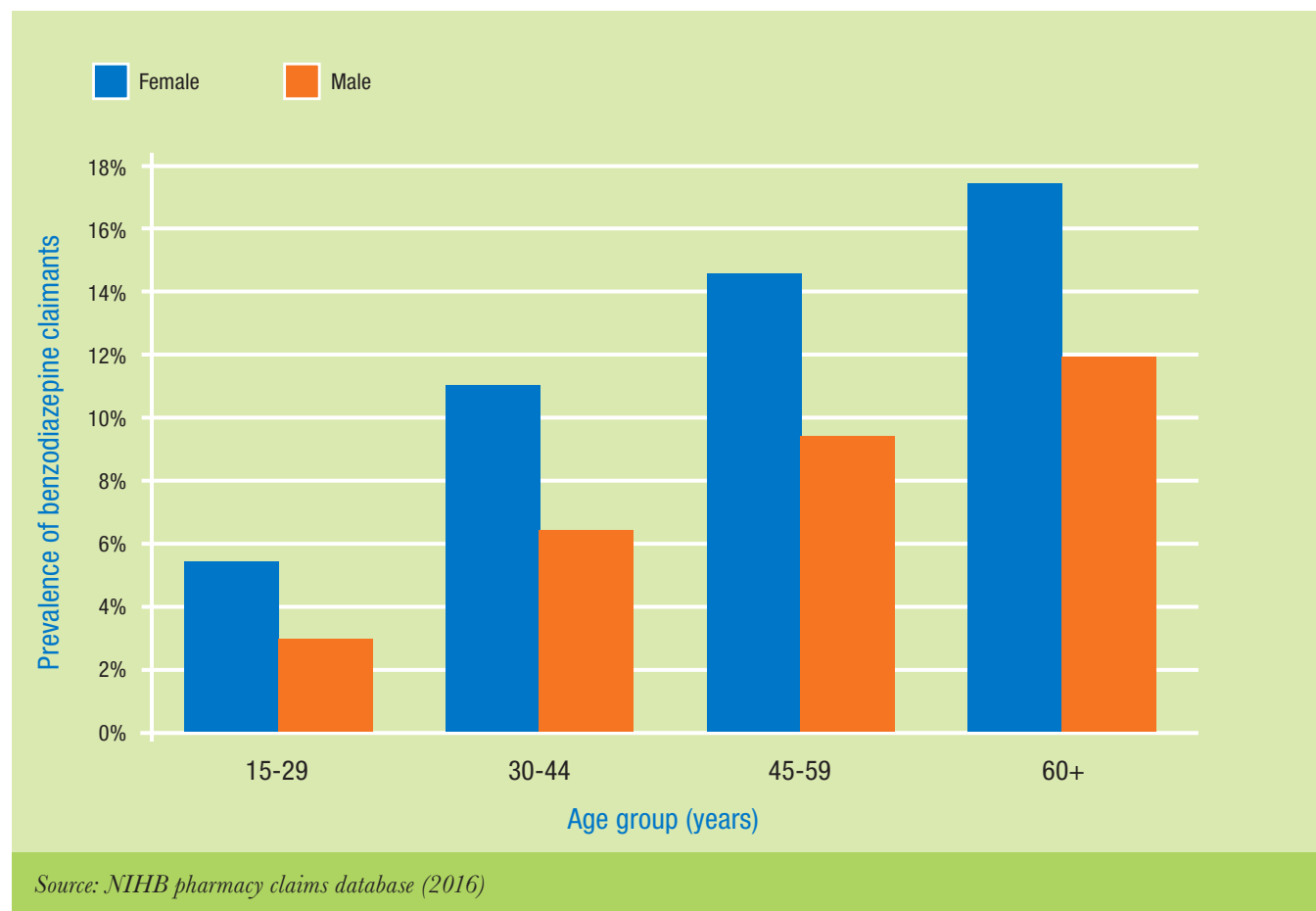
Table 5-1 Prevalence of benzodiazepine medication claimants among Atlantic First Nations band members (15+ years), by province (2014) and percentage difference (2010-2014)

Province	Prevalence of benzodiazepine claimants among Atlantic region band members (2014)	Percentage difference (2010-2014)
NB	11%	3% ↓
NS	11%	4% ↓
PE	8%	1% ↓
NL*	7%	1% ↑
Qalipu**	8%	1% ↑

*Excluding Qalipu **Percentage difference from 2012-2014 Source: NIHB pharmacy claims database (2016)

In 2014, the rate was higher among females (11%) compared with males (7%), among all age groups and higher among people 60 years of age and older. This is similar among band members in each province.

Figure 5-2 Prevalence of benzodiazepine medication claimants among Atlantic First Nations band members (15+ years), by age and sex (2014)



5.2.3 Indian Residential Schools

The Indian Residential Schools Resolution Health Support Program works to provide mental health and emotional support services to those affected by former Indian Residential Schools (IRS) during the IRS Settlement Agreement process. This includes former students and their families⁵⁶.

The program has several components, including professional counselling, cultural and emotional support and transportation services.

For all categories of service, the numbers peak around 2011-2012 or 2012-2013. This is likely due to the impact of the Truth and Reconciliation Commission's Atlantic National Event which was held in Halifax in October of 2011.

Counselling

Counselling services are provided by trained counselling professionals (psychologists and social workers). The number of sessions was the highest in 2011-2012 (Table 5-2). Despite a sharp decline in the number of sessions between 2011 and 2014, the decline going into 2014-2015 appears to taper off slightly. More clients were also seen in this latest year. This may suggest we are witnessing the effects of the intergenerational impact of IRS.

Table 5-2 Number of counselling sessions and clients in the Atlantic region (2010/11-2014/15)

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Number of sessions	1 895	2 207	1 851	1 412	1 324
Number of clients	72	72	69	82	94

Source: IRS Program Atlantic reports (2016)

Resolution Health Support Workers

Resolution Health Support Workers (RHSWs) are Aboriginal community-based workers who have training and experience working with former students of IRS. They listen, talk and support former students and their family members, prior to, during and following all phases of the Settlement Agreement process.

The number of interactions and clients seen is highest in 2012-2013. Declines afterwards may be due to survivors passing away or changes in funding.

Table 5-3 Number of interactions with RHSWs and number of clients seen by RHSWs in the Atlantic region (2010/11-2014/15)

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015*
Number of interactions	1 560	7 965	10 691	7 788	5 786
Number of clients	1 584	912	3 384	1 740	1 072

Source: IRS Program Atlantic reports (2016)

Cultural Support Program

Cultural Support Programs (CSPs) are provided by local First Nation/Inuit organizations. Cultural Support Workers (CSWs), like elders or traditional healers, assist former students, and their families, in safely addressing issues related to the legacy of IRS and the disclosure of abuse during the Settlement Agreement process. Specific services are determined by the needs of the individual and include dialogue, ceremonies, smudging, prayers and traditional healing.

There is a constant upward trend in the number of interactions that CSPs are having with survivors and family members seeking out cultural and traditional healing services from 2011-2012 to 2014-2015. This is consistent with current best practice data and supports the Truth and Reconciliation Commission's call to action to place higher value on the benefits of cultural and traditional healing practices.

Table 5-4 Number of interactions with CSP(s) and number of clients seen in the Atlantic region (2010/11-2014/15)

	2011-2012	2012-2013	2013-2014	2014-2015*
Number of interactions	3 441	3 404	3 970	3 927
Number of clients	517	1 241	627	524*

Source: IRS Program Atlantic reports (2016)

*Values for 2014/15 are underestimated as they are missing data from one fiscal quarter.

5.3 SUBSTANCE USE

5.3.1 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).

There are six NNADAP treatment centres in the Atlantic region, including one 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.

In 2014-2015, of the 697 Atlantic region First Nations clients referred to treatment centres:

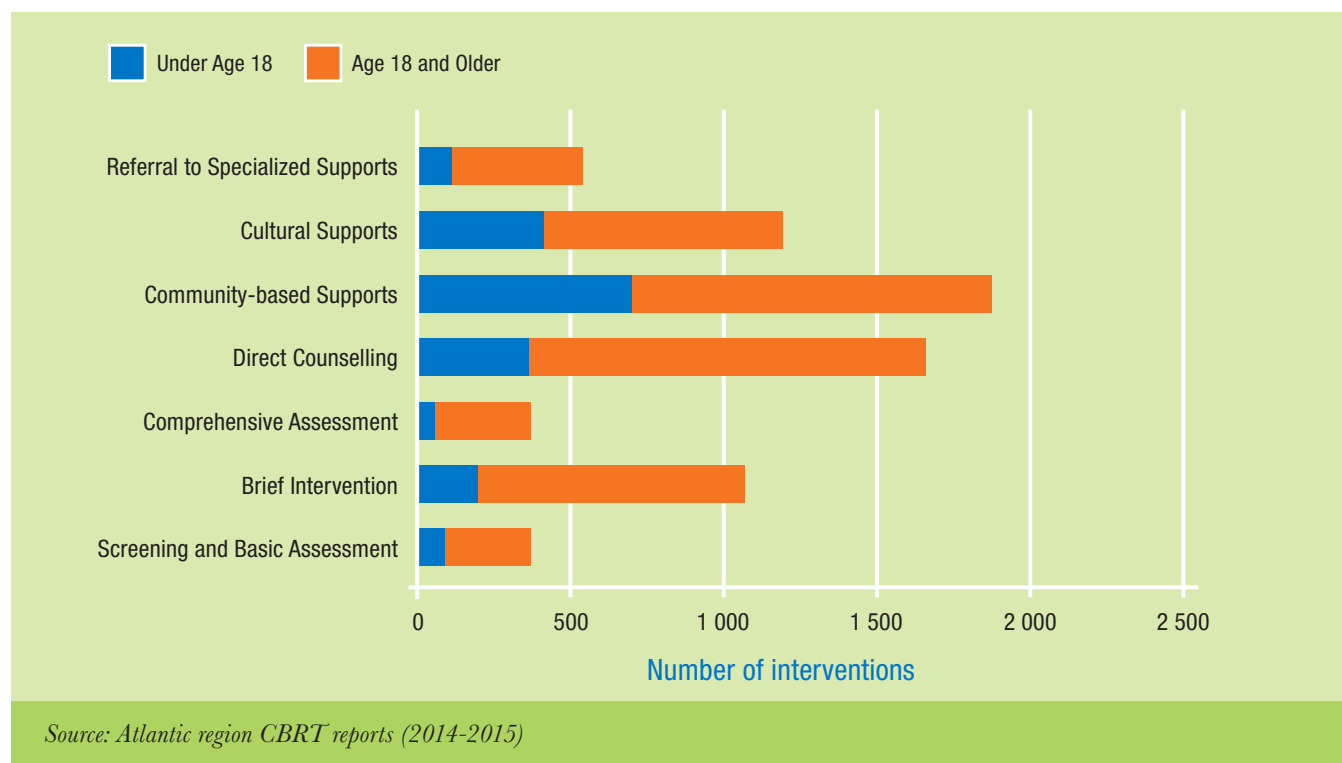
- Approximately 53% were males
- 89% were 18 years and older
- 11% were 12-17 years of age
- Less than 1% were younger than 12 years of age

Over the past four years:

- The proportion of clients 18 years and older increased 23%
- The proportion of clients 12-17 years of age decreased 61%
- The proportion of clients younger than 12 years of age decreased by 92%

In 2014-2015, 6 925 clients received interventions at the community level for substance abuse, addictions, and mental health; 71% were for people age 18 years and older. The most frequently reported types of interventions were direct counselling (e.g., pre-treatment, day or evening programming, or aftercare) and community-based supports (e.g., support groups such as Narcotics Anonymous and Alcoholics Anonymous and day or evening programming; does not include NNADAP or National Youth Solvent Abuse Program residential services).

Figure 5-3 Number of clients who received intervention for substance abuse, addictions, and mental health, by age (2014-2015)



Over the past five years, there has been an increase in both the number of applicants and the number admitted to Atlantic treatment centre programs. Treatment centres located in the Atlantic region reported receiving 306 applicants in 2014-2015, 249 of whom were admitted. Over three quarters (77%) of NNADAP clients who entered in-patient treatment completed the treatment.

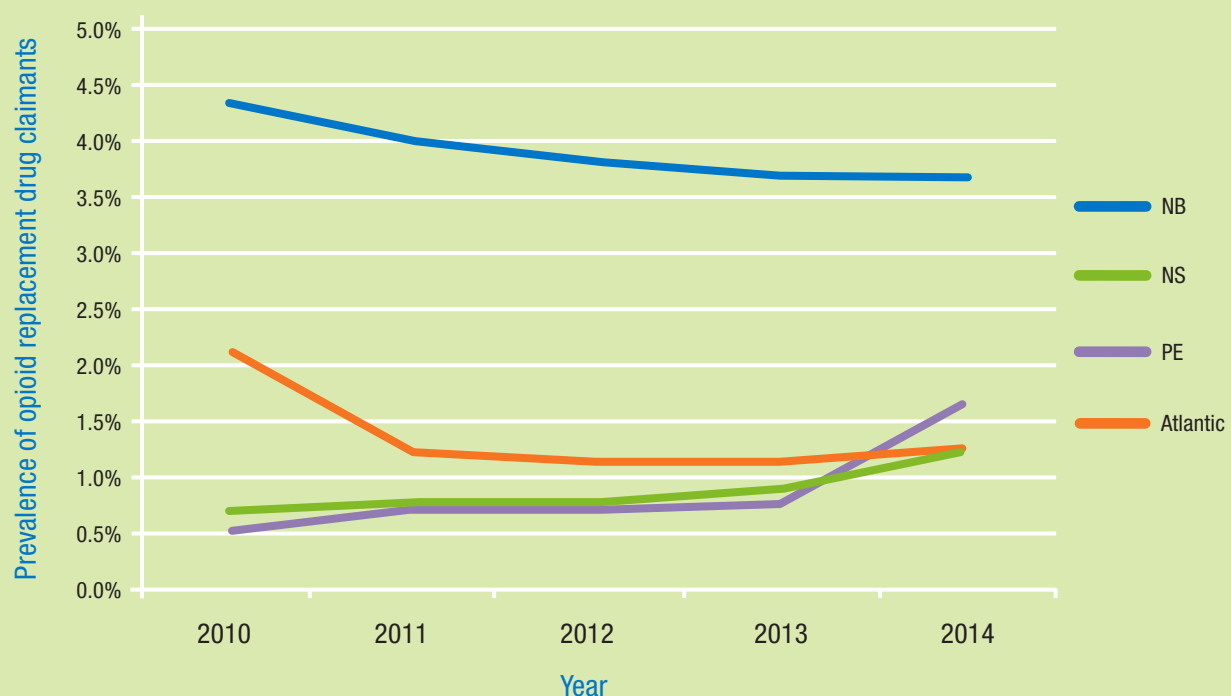
5.3.2 Opioid Replacement Therapy

Opioid replacement therapy, including methadone and Suboxone, alleviates withdrawal and prevents the cravings that can drive an addicted individual to seek their next dose of opioids. Even though methadone and Suboxone are opioids, they do not cause the same euphoria as other opioids and because of their long duration of action, make good choices for medically supervised opioid substitution. When methadone and Suboxone are prescribed under medical supervision, and taken in an appropriately controlled and supported environment, they can help clients overcome the drug-seeking lifestyle. Opioid replacement therapy is medically safe, and is one of the most effective treatments currently available for opioid addiction⁵⁷.

In 2014, approximately 1% of Atlantic band members aged 15 and older made one or more claim(s) for methadone or Suboxone. The prevalence of claimants was highest among those aged 30-44. Males and females had similar claimant prevalence rates overall; the largest difference was that a greater percentage of females aged 15-29 made claims compared to males in this age range. In the last five years:

- New Brunswick has maintained the highest prevalence of claimants; the prevalence of claimants in the province has been steadily declining (down 0.7% in this period)
- Newfoundland and Labrador and the Qalipu have had the lowest prevalence of claimants
- Prince Edward Island had the greatest increase in claimant prevalence (1.1% increase)

Figure 5-4 Prevalence of opioid replacement drug claimants among Atlantic First Nations band members (15+ years), by province* (2010-2014)



*Cannot report on Newfoundland and Labrador or Qalipu individually due to low claimant numbers

Source: NIHB pharmacy claims (2016)

SECTION 6: HEALTH CARE SERVICES

6.1 DENTAL CARE

Dental services funded by FNIHB or provided by Health Canada for First Nations people living on-reserve in Atlantic Canada include the Children's Oral Health Initiative (COHI) and dental therapy program.

In this section, it is important to note that clients seeing private dentists (i.e., making claims through NIHB) are not captured in these data.

6.1.1 *deft*/DMFT Indices

The decayed, extracted and filled teeth (*deft*) and Decayed, Missing, Filled Teeth (*DMFT*) indices are two measurements used to describe the oral health of individuals. During oral examinations, dental therapists and dentists examine patient's mouths and record the number of teeth which fall into each category. The *deft* index is specific to baby teeth, whereas the *DMFT* index is used for adult teeth. For example, a child with a *deft* score of four has four baby teeth which are decayed, extracted or filled. This can happen in any combination; for example, they may have four filled baby teeth or two filled and two decayed baby teeth.

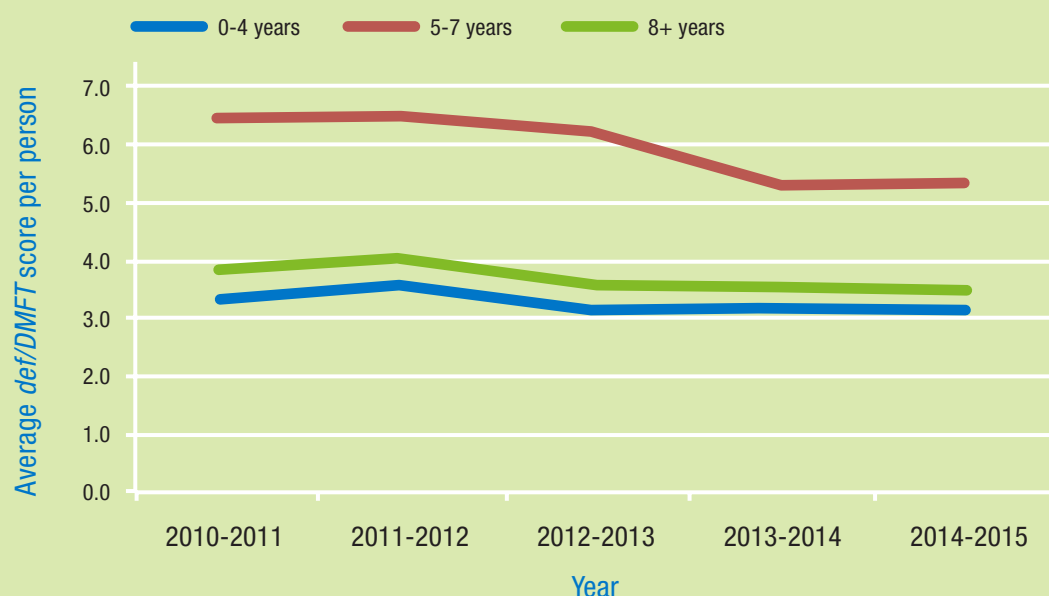
The average score can be used to describe the overall dental health within a population. In this report, the *deft* and *DMFT* are combined to provide a summary measure of oral health among different age groups.

In 2014-15, the average combined *deft*/*DEFT* score per child assessed was 3.2 among those aged four years and younger, 5.4 among five to seven year olds, and 3.4 among those aged eight years and older. These scores are specific to Atlantic First Nations people living on-reserve.

From 2010-2011 to 2014-2015,

- Children aged 5-7 years had the highest average combined *def*/DMFT scores per person (children in this age group have had the longest time to accumulate cavities within their baby teeth and are also transitioning to adult teeth)
- Children aged four years and younger had similar average scores as those aged eight years and older
- The average scores declined among all age groups, most noticeably within those aged 5-7 years (6.4 in 2010-2011 to 5.4 in 2014-2015)

Figure 6-1 Average combined *def*/DMFT scores for Atlantic First Nations on-reserve by age (2010/11-2014/15)



Source: Atlantic region dental therapy data, 2016

When compared with oral health indicators of First Nations people living on-reserve in Canada, dental scores in the Atlantic region are generally better than national averages (Tables 6-1, 6-2).

Among preschool aged children (3-5 years), a smaller proportion of children assessed in the Atlantic region had a score above 0 on the *def* index compared with national figures^{58,59}. This means that a higher percentage of First Nations children in the Atlantic region **did not** have any decayed, extracted or filled primary teeth compared with First Nations children living on-reserve across Canada.



Table 6-1 Oral health assessments among First Nations children living on-reserve in Atlantic region and Canada (3-5 years)

	Atlantic	National
Proportion of children with <i>deft</i> score >0	76%	86%
Average <i>deft</i> score per child	4.5	7.6

Sources: Atlantic regional dental therapy data (2014-2015); FNIGC, National First Nations Oral Health Survey report 2009-2010 (2012)

Similarly, among children aged 6-11 years, a smaller proportion of Atlantic First Nations children assessed had a score above 0 on a combined *deft/DMFT* index compared to First Nations children living on-reserve in Canada^{58,59}. This means that a higher percentage of First Nations children living on-reserve in the Atlantic region **did not** have any decayed, extracted/missing or filled primary or permanent teeth compared to national figures. However, this rate (81%) is much higher compared with children aged 6-11 in the general Canadian population (57%)⁶⁰.

Table 6-2 Oral health assessments among First Nations children living on-reserve in Atlantic region and Canada, and general Canadian population (6-11 years)

	First Nations on-reserve population		General population
	Atlantic	Canada	Canada
Proportion of children with combined <i>deft/DMFT</i> score >0	81%	94%	57%
Average <i>deft/DMFT</i> score	5.1	6.6	2.5

Sources: Atlantic regional dental therapy data (2014-2015); FNIGC, *National First Nations Oral Health Survey report 2009-2010* (2012); Health Canada, *Report on the Findings of the Oral Health Component of the Canadian Health Measures Survey 2007–2009* (2010)

6.1.2 Children’s Oral Health Initiative

COHI is a national program targeting oral health promotion and disease prevention in First Nations⁶¹. It is delivered by COHI aides, who are employed by the community, and dental therapists through Health Canada. The program is for children aged 7 and under, and focuses on screening and preventative services, like fluoride varnishes and sealants⁶².

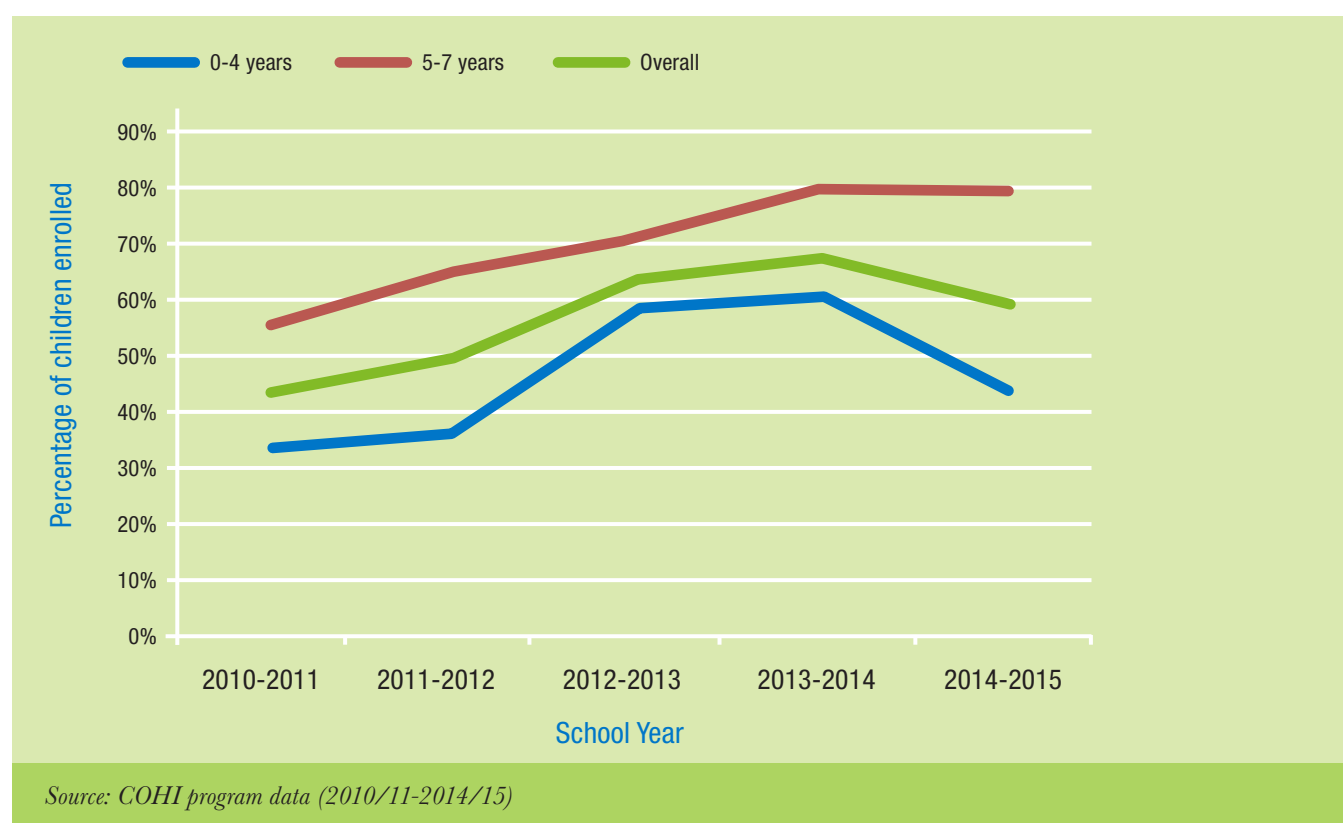
COHI reporting is based on school year, so annual data is gathered from September to August.

In 2014-2015, approximately 59% of eligible Atlantic First Nations children (aged 7 and under) living on-reserve were enrolled in the COHI program.

In the past five years:

- The proportion of eligible children enrolled in COHI increased by 16%
- A larger proportion of children aged 5-7 (school age) were enrolled in COHI during this time compared with younger children; they also had the greatest increase in enrollment, with enrollment rates in 2013-2014 and 2014-2015 of 79%

Figure 6-2 Percentage of eligible children enrolled in COHI program, by age (2010/11-2014/15)



In 2014-2015, there were 1 341 screenings and approximately 4 500 preventative services performed through the COHI program (one child may require more than one service).

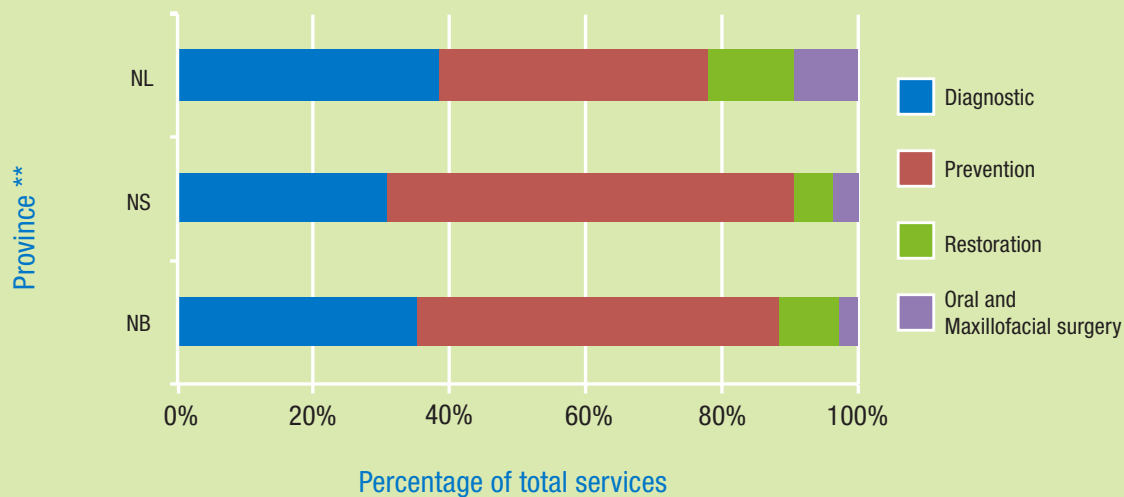
6.1.3 Dental Therapy

Dental therapists are employed by Health Canada and provide preventative, diagnostic and restorative dental work for First Nations people living on-reserve. Dental therapists provide services to children and adults of all ages.

In 2014-15, over half (51%) of all services provided by dental therapists were preventative. Diagnostic services were the second most common (34%), followed by restorative (9%) and oral and maxillofacial surgery related services (6%).

Out of all services performed by dental therapists in each province in 2014-15, Nova Scotia had the largest proportion of preventative services (60% of all services). Newfoundland and Labrador had the largest proportion of diagnostic (38%), restorative (12%) and oral and maxillofacial surgery (10%) services conducted compared with the other provinces (Figure 6-3).

Figure 6-3 Dental therapy service types*, by province (2014-2015)



Source: Dental service and productivity reports (2016)

*Endodontic and periodontic related services are also tracked, however they contribute 1% or less of total services, so they were excluded here

**Dental therapy services are not offered in Prince Edward Island

6.2 HOME AND COMMUNITY CARE

In 2014-2015, approximately 7% of Atlantic First Nations people living on-reserve accessed home and community care services. The majority (62%) of clients were females and just over half (55%) were aged 55 and older.

Approximately two thirds (67%) of all Atlantic service hours were for assisted living (e.g., home management, meal services, etc.). Personal care and respite services were the next most common.

Table 6-3 Percentage of total home and community care service hours, by service type (2014/15)

Service type	Percentage
Assisted living	67%
Personal care	13%
Respite services	9%
Nursing	6%
Case management	4%
Professional care	1%

Source: eSDRT reports (2016)

In 2014-2015, the top five primary reasons for home care services in the Atlantic region were:

- Diabetes (24%)
- Other (a reason other than those listed in eSDRT system) (21%)
- Acute and chronic wound care (14%)
- Musculoskeletal conditions (arthritis, fracture, etc.) (12%)
- Cardiovascular disease (8%)

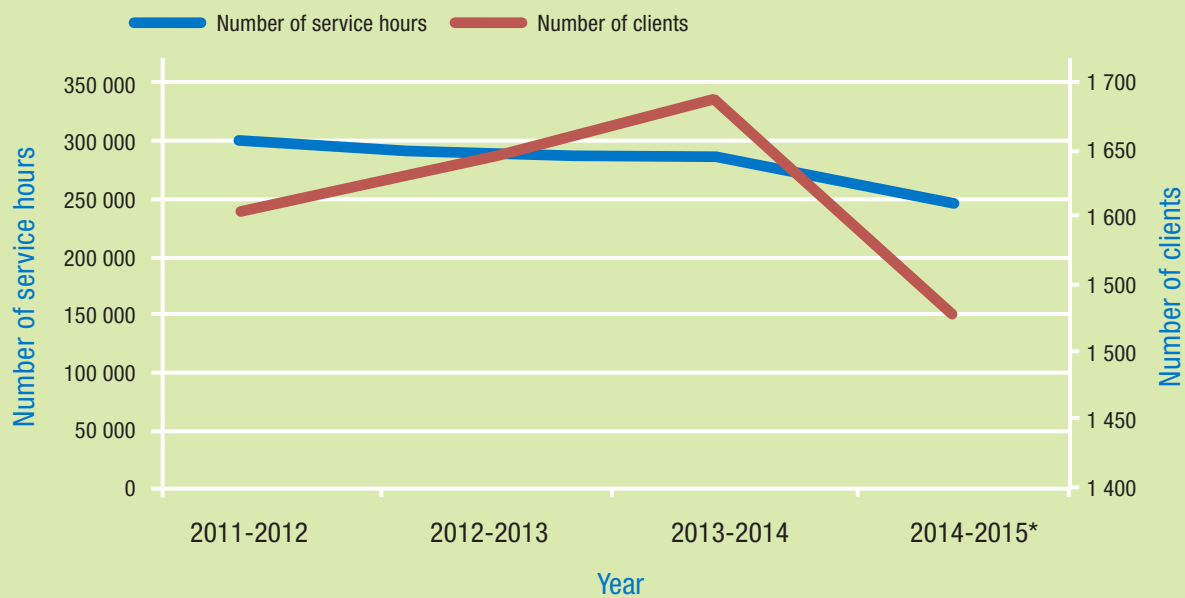
In the past four years,

- The number of service hours has decreased*
- The number of clients being served increased up to 2013/14 and dropped in 2014/15*

* In 2014-15, there was one community which did not report throughout the year and three communities which did not report in particular months. These missing data may account for the drop in client numbers and increased drop in service hours seen during the year. Previous years had fewer missing reports.



Figure 6-4 Number of community care hours of service and number of clients (2011/12-2014/15)



Source: eSDRT reports (2016)

* In 2014-15, there was one community which did not report throughout the year and three communities which did not report in particular months. These missing data may account for the drop in client numbers and increased drop in service hours seen during the year. Previous years had fewer missing reports.



LIST OF FIGURES
LIST OF TABLES
LIST OF ACRONYMS
REFERENCE LIST

LIST OF FIGURES

Figure 1-1 How prevalence of drug claimants using NIHB data are calculated	8
Figure 2-1 Population of Registered Indians living on-reserve in Atlantic Canada, by age and sex (2014)	14
Figure 2-2 Population of Atlantic Canada, by age and sex (2014)	15
Figure 2-3 Educational attainment of the Atlantic Aboriginal population and the general Atlantic population (15+ years), by sex (2011)	18
Figure 2-4 Four most common training sessions delivered in Atlantic Canada (2010/11-2014/15)	19
Figure 2-5 Average annual income for the Atlantic Aboriginal population and the general Atlantic population (15+ years), by sex (2011)	22
Figure 2-6 Employment rate for Atlantic Aboriginal population and the general Atlantic population (15+ years), by age (2011)	23
Figure 2-7 Community Well-Being scores for Atlantic First Nations, non-First Nations and national First Nations communities (1981-2011)	24
Figure 3-1 Percentage of environmental inspections, by type of facility (2014-2015)	27
Figure 3-2 Percentage of bacteriologically unsatisfactory water samples, all coliforms (2010/11-2014/15)	30
Figure 3-3 Percentage of chemically unsatisfactory water samples (2010/11-2014/15)	32
Figure 3-4 Duration of Drinking Water Advisories (2010/11-2014/15)	33
Figure 4-1 Percentage of Atlantic First Nations mothers on-reserve by breastfeeding duration (2014-2015)	36
Figure 4-2 Percentage of Atlantic region First Nations babies on-reserve introduced to solid food, by age (2014-2015)	38
Figure 4-3 Prevalence of smoking cessation product claimants among Atlantic First Nations band members, by province (2010-2014)	44
Figure 4-4 Prevalence of smoking cessation product claimants among Atlantic First Nations band members, by age and sex (2014)	45
Figure 4-5 Self-reported methods of managing diabetes - pills, diet, exercise, and insulin (2008-2010)	47
Figure 4-6 Prevalence of antidiabetic medication claimants among Atlantic First Nations band members, by province (2010-2014), age standardized rates	49
Figure 4-7 Prevalence of antidiabetic medication claimants among Atlantic First Nations band members, by age and sex (2014)	50
Figure 4-8 Prevalence of cardiovascular drug claimants among Atlantic First Nations band members, by age and sex (2014)	52
Figure 4-9 Prevalence of cardiovascular drug claimants among Atlantic First Nations band members, by province (2014)	53
Figure 4-10 Prevalence of opioid drug claimants among Atlantic First Nations band members (15+ years), by province (2010-2014)	55
Figure 4-11 Prevalence of opioid drug claimants among Atlantic First Nations band members (15+ years), by age and sex (2014)	56
Figure 4-12 Chlamydia rates (per 100 000 people) among Atlantic First Nations on-reserve, by year (2010-2014)	58
Figure 4-13 Chlamydia rates (per 100 000 people) among Atlantic First Nations on-reserve, by province (2010-2014)	59
Figure 4-14 Chlamydia rates (per 100 000 people) among Atlantic First Nations on-reserve (2014) and general Canadian population, by age (2013)	60
Figure 4-15 Hepatitis C rates (per 100 000 people) among Atlantic First Nations on-reserve, by year (2010-2014)	61
Figure 4-16 Immunization coverage rates for Atlantic First Nations children on-reserve, by age and year (2010-2014) ..	62
Figure 5-1 Prevalence of benzodiazepine medication claimants among Atlantic First Nations band members (15+ years), by province (2010-2014)	67
Figure 5-2 Prevalence of benzodiazepine medication claimants among Atlantic First Nations band members (15+ years), by age and sex (2014)	69

LIST OF FIGURES *continued*

Figure 5-3 Number of clients who received intervention for substance abuse, addictions, and mental health, by age (2014-2015)73

Figure 5-4 Prevalence of opioid replacement drug claimants among Atlantic First Nations band members (15+ years), by province (2010-2014)74

Figure 6-1 Average combined *deft/DMFT* scores in Atlantic region, by age (2010/11-2014/15)76

Figure 6-2 Percentage of eligible children enrolled in COHI program, by age (2010/11-2014/15).....79

Figure 6-3 Dental therapy service types, by province (2014-2015)80

Figure 6-4 Number of community care hours of service and number of clients (2011/12-2014/15).....82

LIST OF TABLES

Table 1-1 Number of communities with missing eSDRT reports (2011/12-2014/15).....4

Table 1-2 Number of Atlantic First Nations on-reserve communities reporting immunization coverage rates (2010-2014)6

Table 1-3 Percentage of Notifiable Disease Reports missing from total due (2010-2014)7

Table 2-1 Percentage of children in AHSOR program who were screened, diagnosed, referred or on waitlist for special needs resources (2014-2015)21

Table 3-1 Percentage of satisfactory housing assessments by mold area (2014-2015)29

Table 3-2 Number of water samples exceeding total coliform levels or detecting presence of *E.coli* (2010/11-2014/15)31

Table 4-1 Pre-natal risk factors among Atlantic First Nations women on-reserve (2014-2015) and three-year trend (2012/13-2014/15)35

Table 4-2 Breastfeeding and initiation rates for Atlantic First Nations mothers on-reserve (2014-2015), by three-year trend (2012/13-2014/15)37

Table 4-3 Daily routines reported by Atlantic First Nations adults on-reserve, by sex (2008-2010)40

Table 4-4 Daily routines reported by Atlantic First Nations youth (12-17 years) on-reserve (2008-2010)41

Table 4-5 Percentage of First Nations adults on-reserve reporting current, daily and occasional smoking (2008-2010)42

Table 4-6 Percentage of First Nations youth on-reserve (12-17 years) reporting current, daily and occasional smoking (2008-2010)43

Table 4-7 Self-reported diabetes rates in Atlantic and Canadian First Nations adults on-reserve (2008-2010)46

Table 4-8 Prevalence of antidiabetic medication claimants among Atlantic First Nations band members and prevalence of self-reported diabetes in general Atlantic population, by province (2014), age standardized48

Table 4-9 Self-reported screening rates in past 12 months for Atlantic First Nations adults living on-reserve, by sex (2008-2010)50

Table 4-10 Prevalence of opioid drug claimants among Atlantic First Nations band members (15+ years), by province (2014) and percentage difference (2010-2014)55

Table 4-11 Chlamydia rates (per 100 000 people) among Atlantic First Nations on-reserve (2014) and the general Canadian population (2013), crude and standardized rates...60

Table 4-12 Hepatitis C rates (per 100 000 people) among Atlantic First Nations on-reserve (2014) and the general Canadian population (2013), crude and age standardized rates61

continued >

LIST OF TABLES *continued*

Table 5-1 Prevalence of benzodiazepine medication claimants among Atlantic First Nations band members (15+ years), by province (2014) and percentage difference (2010-2014).....68

Table 5-2 Number of counselling sessions and clients in the Atlantic region (2010/11-2014/15).....70

Table 5-3 Number of interactions with RHSWs and number of clients seen by RHSWs in the Atlantic region (2010/11-2014/15)71

Table 5-4 Number of interactions with CSP(s) and number of clients seen in the Atlantic region (2010/11-2014/15)71

Table 6-1 Oral health assessments among First Nations children living on-reserve in Atlantic region and Canada (3-5 years)77

Table 6-2 Oral health assessments among First Nations children living on-reserve in Atlantic region and Canada, and general Canadian population (6-11 years)78

Table 6-3 Percentage of total home and community care service hours, by service type (2014/15)81

LIST OF ACRONYMS

AHSOR – Aboriginal Head Start On Reserve

BMI – Body Mass Index

CA – Contribution Agreement

CBRT – Community-Based Reporting Template

CBWM – Community-Based Water Monitors

CCHS – Canadian Community Health Survey

COHI – Children’s Oral Health Initiative

CSP – Community Support Program

CWB – Community Well-Being

def – decayed, extracted and filled teeth

DMFT – Decayed, Missing, Filled Teeth

DWA – Drinking Water Advisory

EHIS – Environmental Health Information Systems

EHO – Environmental Health Officers

EMR – Electronic Medical Record

eSDRT – Electronic Service Delivery Reporting Template

FN – First Nations

FNIGC – First Nations Information Governance Centre

FNHIB – First Nations and Inuit Health Branch

INAC – Indigenous and Northern Affairs Canada (formerly AANDC – Aboriginal Affairs and Northern Development Canada)

IRS – Indian Residential Schools

NIHB – Non-Insured Health Benefits

NNADAP – National Native Alcohol and Drug Abuse Program

PHAC – Public Health Agency of Canada

RHS – First Nations Regional Health Survey

REEES – First Nations Regional Early Childhood, Education and Employment Survey

SVS – Status Verification System

UNSI – Union of Nova Scotia Indians

WHO – World Health Organization

REFERENCE LIST

1. **Union of Nova Scotia Indians.** *Atlantic roll-up of 2008-2010 Regional Health Survey data.* 2016.
2. **First Nations Information Governance Centre.** 10 Questions about the First Nations Regionals Early Childhood, Education and Employment Survey (FNREEES) [brochure]. [Online] 2016.
3. **Statistics Canada.** Canadian Community Health Survey - Annual Component (CCHS). [Online] 04 20, 2015. [Cited: 02 23, 2016.] <http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3226>.
4. **Healthy People 2020.** Social Determinants of Health. [Online] <http://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>.
5. **Public Health Agency of Canada.** What Makes Canadians Health or Unhealthy? [Online] 2013-01-15. <http://www.phac-aspc.gc.ca/ph-sp/determinants/determinants-eng.php#defining>.
6. **Loppie Reading, Charlotte and Wien, Fred.** *Health Inequalities and Social Determinants of Aboriginal Peoples' Health.* s.l. : National Collaborating Centre for Aboriginal Health, 2009.
7. **Canadian Diabetes Association.** Are You at Risk? [Online] 2016. <http://www.diabetes.ca/about-diabetes/risk-factors/are-you-at-risk>.
8. **Indigenous and Northern Affairs Canada.** Statistics. [Online] <https://www.aadnc-aandc.gc.ca/eng/1313164698167/1313164748455>.
9. **Statistics Canada.** NHS Data Tables: 99-011-X2011030. [Online]
10. —. *Aboriginal peoples and language, National Household Survey (NHS),* 2011. 2013. 99-011-X2011003.
11. **First Nations Information Governance Centre.** *Early Childhood Education in First Nations Communities, The First Nations Regional Early Childhood, Education and Employment Survey 2013-14 [Infographic].* 2015.
12. —. *Youth and Adult Education in First Nations Communities; The First Nations Regional Early Childhood, Education and Employment Survey 2013-14 [Infographic].* 2015.
13. —. *Employment in First Nations Communities, The First Nations Regional Early Childhood, Education and Employment Survey 2013-14 [Infographic].* 2015.
14. —. *Employment in First Nations Communities - Employment Puzzle 1, The First Nations Regional Early Childhood, Education and Employment Survey 2013-14 [Infographic].* 2015.
15. **Indigenous and Northern Affairs Canada.** The Community Well-Being (CWB) Index, 1981-2011. [Online] 04 02, 2015. [Cited: 01 16, 2016.] <https://www.aadnc-aandc.gc.ca/eng/1419864229405/1419864303946>.
16. —. First Nations children on-reserve in care, data request. 2015.
17. **Statistics Canada.** Aboriginal Peoples in Canada: First Nations People, Metis and Inuit. 2013. Cat. 99-011-X2011001.
18. **Shaw, Mary.** Housing and Public Health. Annual Reviews of Public Health. 2004, Vol. 25, pp. 397-418.
19. **Health Canada.** *National Framework for the Environmental Public Health Program in First Nations Communities South of 60°.* 2009.
20. —. *Aboriginal Statistics at a Glance: 2nd edition.* 2015. Catalogue no. 89-645-x2015001.
21. **Environmental Health Information System.** *Atlantic reports.* 2016.
22. **Health Canada.** *Guidelines for Canadian Drinking Water Quality—Summary Table.* Ottawa : Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, 2014.
23. —. Guidelines for Canadian Drinking Water Quality - Summary Table. [Online] 10 2014. [Cited: 02 18, 2016.] http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/sum_guide-res_recom/index-eng.php#t.

REFERENCE LIST *continued*

24. —. *Guidelines for Canadian Drinking Water Quality: Guideline Technical Document – Total Coliforms*. 2013. Cat. H144-8/2013E-PDF.
25. —. *Guidance on the use of the microbiological drinking water quality guidelines*. 2013. Cat. H144-12/2013E-PDF.
26. **Centers for Disease Control and Prevention**. Tobacco Use and Pregnancy. [Online] 09 09, 2015. [Cited: 02 23, 2015.] <http://www.cdc.gov/reproductivehealth/maternalinfanthealth/tobaccousepregnancy/>.
27. **Public Health Agency of Canada**. *Canadian Perinatal Health Report*. 2008. Cat. No. HP10-12/2008E.
28. *The Predisposition to Obesity and Diabetes in Offspring of Diabetic Mothers*. **Dabelea, Dana**. S2: Diabetes Care, 2007, Vol. 20, pp. S169-174.
29. *Atlantic region CBRT reports*. 2014-15.
30. **Statistics Canada**. *CANSIM table 102-4504 (Crude birth rate, age-specific and total fertility rates (live births), Canada, provinces and territories)*. 2012.
31. —. CANSIM Table 102-4509 Live births, by birth weight and sex, Canada, provinces and territories, annual. [Online] 02 09, 2016. [Cited: 02 29, 2016.]
32. **Government of Canada**. *The Well-Being of Canada's Young Children*. 2011. Cat. No. HS1-7/2012E-PDF.
33. **Health Canada**. *Nutrition for Healthy Term Infants: Recommendations from Birth to Six Months*. 2015.
34. **World Health Organization**. *Nutrition - Global Strategy for Infant and Young Child Feeding*. 2003.
35. **Statistics Canada**. Table 105-0501 - Health indicator profile, annual estimates, by age group and sex, Canada, provinces, territories, health regions (2013 boundaries) and peer groups, occasional. CANSIM, 2015.
36. *Health benefits of physical activity: the evidence*. **Warburton, Darren E R, Nicol, Crystal Whitney and Bredin, Shannon S D**. 6, 2006, Canadian Medical Association Journal, Vol. 174, pp. 801-809.
37. **First Nations Information Governance Centre**. *First Nations Regional Health Survey (RHS) 2008/10 - National Report on Adults Living in First Nations Communities*. Ottawa : FNIGC, 2012.
38. **Canadian Society for Exercise Physiology**. *Canadian Physical Activity and Sedentary Behaviour Guidelines Handbook*. 2012.
39. **Health Canada**. *Canadian Guidelines for Body Weight Classification in Adults - Quick Reference Tool for Professionals*. 2003. H49-179/2003-1E.
40. —. It's Your Health - Obesity. [Online] 2006. [Cited: 02 08, 2016.] http://www.hc-sc.gc.ca/hl-vs/alt_formats/pacrb-dgapcr/pdf/iyh-vsv/life-vie/obes-eng.pdf. H13-7/20-2006E-PDF.
41. **Statistics Canada**. Canadian Tobacco Alcohol and Drugs Survey, February - December 2013. [Online] [Cited: 02 10, 2016.] <http://healthycanadians.gc.ca/science-research-sciences-recherches/data-donnees/ctads-ectad/tables-tableaux-2013-eng.php#t2>.
42. **First Nations Information Governance Centre**. *First Nations Regional Health Survey (RHS): 2008/10: National report on youth living in First Nations communities*. Ottawa : FNIGC, 2012.
43. **World Health Organization**. *Prevention of Cardiovascular Disease - Pocket Guidelines for Assessment and Management of Cardiovascular Risk*. Geneva : World Health Organization, 2007.
44. **Canadian Lung Association**. *Chronic Obstructive Pulmonary Disease (COPD)*. 2014.
45. **Sproule, Beth, et al**. Changing patterns in opioid addiction. *Can Fam Physician*. 2009, Vol. 55, 1, pp. 68-69.e5.
46. **Health Canada**. *It's Your Health - Opioid Pain Medications*. 2009. Cat. No.: H13-7/65-2009E-PDF .
47. **Public Health Agency of Canada**. *Case Definitions for Communicable Diseases under National Surveillance*. CCDR, 2009.



REFERENCE LIST *continued*

48. —. Notifiable Diseases On-Line. [Online] 2015. <http://dsol-smed.phac-aspc.gc.ca/dsol-smed/ndis/charts.php?c=yl>.
49. —. Hepatitis C: Get the facts. [Online] 2015. <http://www.phac-aspc.gc.ca/hepc/pubs/getfacts-informezvous/index-eng.php>.
50. **Immunize Canada**. Immunization Success. [Online] 02 25, 2016. [Cited: 02 29, 2016.] <http://immunize.ca/en/default.aspx>.
51. **Health Canada & Assembly of First Nations**. *First Nations Mental Wellness Continuum Framework*. 2015. Cat.: H34-278/1-2014E.
52. *Short screening scales to monitor population prevalences and trends in non-specific psychological distress*. **Kessler, RC, et al.** 6, 2002, *Psychological Medicine*, Vol. 32, pp. 959-976.
53. *Guarded Borders: Colonially Induced Boundaries and Mi'kmaq Peoplehood*. **Thomas, Rebecca Lea**. Dalhousie University, 2012.
54. **Canadian Pharmacists Association**. *e-CPS Compendium of Pharmaceuticals and Specialties*. : Canadian Pharmacists Association.
55. **Government of Canada**. Healthy Canadians. *Benzodiazepines*. [Online] 09 30, 2014. <http://healthycanadians.gc.ca/healthy-living-vie-saine/substance-abuse-toxicomanie/prescription-abuse-abus-ordonnance/benzodiazepines-eng.php>.
56. **Health Canada**. Indian Residential Schools Resolution Health Support Program. <http://www.hc-sc.gc.ca/fniah-spnia/services/indiresident/irs-pi-eng.php>. [Online] 05 27, 2015. [Cited: 02 23, 2015.]

REFERENCE LIST *continued*

57. **Centre for Addiction and Mental Health.** Mental Health and Addiction Information - Methadone. [Online] 2011. http://www.camh.ca/en/hospital/health_information/a_z_mental_health_and_addiction_information/methadone/Pages/methadone_dyk.aspx.
58. Atlantic region dental therapy data. 2014-2015.
59. **First Nations Information Governance Centre.** *Report on the Findings of the First Nations Oral Health Survey (FNOHS) 2009-2010 National Report.* 2012.
60. **Health Canada.** *Report on the Findings of the Oral Health Component of the Canadian Health Measures Survey 2007-2009.* Cat.: H34-221/2010E-PDF : 2010.
61. —. Strategies & Initiatives - First Nations and Inuit Health. [Online] 03 19, 2012. [Cited: 02 17, 2016.] <http://www.hc-sc.gc.ca/ahc-asc/activit/strateg/fnih-spni-eng.php>.
62. **FNIHB.** *COHI - Service and Productivity Report.* 2016.



Health Canada
1505 Barrington Street, Suite 1525
Halifax, Nova Scotia
B3J 3Y6
Email: hc.fnihb_at_epis_dgspni_at.sc@canada.ca