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# Health Determinants for First Nations in Alberta 2010



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# Highlights

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Health and well-being are strongly influenced by a number of social determinants. This report presents the health determinants for First Nations in Alberta using the best available information. In many ways, the information gathered represents a baseline that can be used for health planning in Alberta. The following summarizes some of the report's key highlights:

- The First Nations population in Alberta is much younger than the Alberta population. The rapid growth is the result of a high birth rate as well as an increasing number of individuals who identify as First Nations.
- Life expectancy and infant mortality rates for First Nations have improved significantly in the last few decades but they are still trailing those of the Canadian population.
- While the vast majority of Canadians who die in any given year are 65 and over, that age group represents only a third of the deaths amongst First Nations. Injury is the leading cause of death for First Nations between the ages of 0 and 44.
- A lower proportion of First Nations rate their health as “excellent” or “very good” in comparison with the populations of Alberta and Canada. Information on key risks factors show poorer results for First Nations in a number of key areas including body weight, smoking, chronic conditions and addictions.
- First Nations are much more likely to abstain from alcohol consumption than their Alberta and Canadian counterparts. However, a higher proportion of First Nations consuming alcohol are heavy drinkers.
- First Nations children are more likely to live in a single-parent household than their non-Aboriginal counterparts. First Nations children have younger parents and tend to be overrepresented in the child welfare system.
- The First Nations educational attainment is increasing but not as rapidly as for the non-Aboriginal population even amongst the younger age groups. In Alberta, a high proportion (51.9%) of First Nations has not completed high school.
- Over a lifetime of earning, the difference in income between those who have not completed high school and those who have graduated university could exceed \$750,000 for First Nations.
- Education proves to be a great equalizer, as the employment rate of First Nations and non-Aboriginal population are quite similar for individuals who have completed high school or post-secondary education.
- Housing conditions are poorer in First Nations communities than in other Albertan and Canadian communities. Housing conditions vary considerably between communities.

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# Foreword

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It is with great pleasure that I introduce this document to you. For many years First Nations leadership and community members have asked that data meaningfully relating to health determinants of First Nations residents be available for both program planning, implementation and decision-making purposes. As First Nations assume an ever greater role in governing our affairs the quality and availability of information upon which to base decisions will become greater.

The work you will see on the following pages is the result of initially canvassing known sources of data; examining the data and identifying the most reliable and applicable from the morass of numbers present in today's world. To ensure that the project remained on track the results were presented to hundreds of people and feedback solicited from First Nations leadership, community members, health professionals, educators, and too many others to mention here. This feedback was critical in ensuring that the focus remained on the identification of the real issues and concerns of first Nations residents that had an impact on their health.

This work represents only a beginning and you can look forward in the future to better data that incisively enable First Nations to close the gap that exists in health outcomes with the Canadian population. As the process evolves the targets will become clearer and the success rate of affecting transformative change will become greater. I look forward to working with all interested parties in this important work and look forward to the dialogue to come.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'Charles Weaselhead', written in a cursive style.

**Grand Chief Charles Weaselhead**  
Treaty 7

# Introduction

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In 1948, the World Health Organization (WHO) adopted its definition for health as “the state of complete physical, mental and social well-being”<sup>1</sup>, moving away from a narrower definition that simply defined it as “the absence of illness”<sup>2</sup>.

In 1986, the first International Conference on Health Promotion was held to respond to growing expectations for a new public health movement around the world. The Ottawa Charter for Health Promotion defined health as “a resource for everyday life, not the objective of living”<sup>3</sup>.

These definitions and their emphasis on social factors and conditions are fairly similar to what First Nations in Canada have long advocated for—a holistic view of health grounded in the teachings of the medicine wheel.

For a number of years, Health Canada has been advocating for a population health approach that would be based on social determinants of health<sup>4</sup> including:

- Income and social status
- Social support networks
- Education and literacy
- Employment/working conditions
- Social environments
- Physical and built environments
- Personal health practices and coping skills
- Healthy child development
- Biology and genetic endowment
- Health services
- Gender
- Culture

While the indicators presented in this report do not cover each of the social determinants of health identified above, they represent the information that was accessible. This includes information on a wide range of indicators such as demographics, vital statistics, health indicators and several socio-economic factors.

This report is meant to be a resource for health planning. Using a population health approach, most indicators provide information on First Nations in Alberta and are compared with non-Aboriginal or non-First Nations populations, or the whole population of Alberta and Canada.

In most cases, the data provided are specific to First Nations in Alberta, however in some instances the information could not be accessed. In those instances, data about First Nations in Canada were used. In rare circumstances, when First Nations-specific data could not be obtained, Aboriginal data were used.

This report and its accompanying presentation have been circulated in draft form and discussed with key stakeholders and decision-makers in First Nations organizations and governments at many forums in 2008. These conversations have enhanced the content and been beneficial in identifying topics of interest.

- Aboriginal peoples refer to the “descendants of the original inhabitants of North America. The Canadian Constitution recognizes three groups of Aboriginal people – Indians, Métis and Inuit”. Therefore, when data are identified as being provided for non-Aboriginal individuals, First Nation, Métis and Inuit responses provided would be excluded.
- First Nations “came into common usage in the 1970s to replace the word ‘Indian’. Although the term is widely used, no legal definition exists”.

**Source:** *Terminology, Indian and Northern Affairs Canada*

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<sup>1</sup> World Health Organization website - Glossary

<sup>2</sup> World Health Organization website - Glossary

<sup>3</sup> Ottawa Charter for Health Promotion, 1986

<sup>4</sup> Public Health Agency of Canada website

## Data Sources and Limitations

In reviewing the information in this report, it is important to note:

- As no data source is perfect, the best available information was used.
- As much as possible the data are specific to First Nations in Alberta.
- All data are comparable to allow for quick identification of where issues may merge or diverge between First Nations and the general population of Alberta. Many data sources were used to create this report, most of which were publicly available, however, a small number of graphs relied on access to internal databases or custom tabulations.
- A significant portion of the information gathered for this report relies on self-reported data gathered through surveys or the Census. The data provide information on a wide range of topics (e.g. education, employment, income, health) that may not be otherwise available, however, self-reported data are subject to potential bias. In some cases, the bias may lead to under-reporting (e.g. individuals tend to under-report weight and over-report their height leading to lower and therefore more positive BMI results) and over-reporting (e.g. individuals may report health conditions without having received a diagnosis by the appropriate health professional).

### Statistics Canada – Census

Statistics Canada undertakes a census of the Canadian population every five years, which all Canadians are required by law to complete. The most recent results available are for 2006, although information derived from the 2001 Census was also used for the Community Well-Being Index section (Section 12, Page 55).

There are two census questionnaires. The majority of respondents (80 per cent) are required to complete the short-form questionnaire that gathers basic demographic data, while the long-form is required to be completed by one in five households.



Beyond providing basic demographic data, the long-form questionnaire gathers additional information including ethnicity, income, labour force activity and housing. All on-reserve residents are requested to complete the long-form questionnaire; in many cases, canvassers are used to gather the information.

The 2006 Census provides a wealth of information that can easily be accessed, but as with many datasets, it has a few limitations:

- Most First Nations communities in Alberta participated in the 2006 Census; the only exceptions were Little Buffalo (Lubicon), Saddle Lake and Tsuu T'ina.
- Many individuals who would normally reside on-reserve in Enoch were temporarily relocated when the census was undertaken and this led to concerns over quality of the data therefore only basic population information is available for this community.
- To maintain privacy and to prevent individual identification, some data for smaller communities are publicly available are therefore not included in this report.



### **Statistics Canada — Surveys**

Statistics Canada conducts a number of surveys on a regular basis including the Canadian Community Health Survey (CCHS), the Canadian Addictions Survey (CAS) and the International Adult Literacy and Skills Survey (IALSS). While these surveys provided useful information regarding Albertans and Canadians, the information regarding First Nations in Alberta was limited. For example, the Canadian Community Health Survey provides information for Aboriginal individuals at the Canadian and provincial levels, but does not provide First Nations-specific data. In addition, the Canadian Addictions Survey does not include any ethnicity questions and the International Adult Literacy and Skills Survey provides results for urban First Nations in Manitoba and Saskatchewan only.

### **Indian and Northern Affairs Canada**

The Indian registry from Indian and Northern Affairs Canada (INAC) provides key demographic data, however, with the following limitations:

- Delays in reporting births and deaths.
- Residence is usually reported to INAC at life events (e.g. at the birth or death of individual), so individuals may move off/on-reserve and this information may not be captured.

- May not accurately reflect the on-reserve population level in a given community as only the registered First Nations are included.

INAC - Alberta Region provided access to some internal data related to specific program areas such as income support and children in care. While the administrative data are not comparable, it provides insights into some of the determinants of health.

### **Assembly of First Nations**

Results from the 2002-2003 First Nations Regional Longitudinal Health Survey (RHS) provided data for comparison with the Canadian Community Health Survey and the Canadian Addictions Survey. As the 2002-2003 RHS was completed by only nine communities in Alberta, the national results were used rather than the provincial ones.



# First Nations Communities in Alberta

Alberta is divided into three Treaty areas, which are further divided into communities, tribal councils and/or independent bands. However, the most commonly used data sources, Health Canada, Indian and Northern Affairs Canada (INAC) and Statistics Canada, do not all identify the same number of communities in each Treaty area.

While Statistics Canada identifies 97 reserves in Alberta, not all of them are populated. INAC recognizes 134 reserves and 44 First Nations, while Health Canada, through First Nations and Inuit Health, delivers programs to yet a different number of communities as some services are offered locally and others are offered through tribal councils and other organizations. For example, some of the health services offered to the members of the Ermineskin, Louis Bull, Montana, Pigeon Lake and Samson bands are offered locally while others are offered through a centrally-located organization, Maskwacis Health Services. In some cases, the data available for Bigstone are simply identified as such for INAC and Health Canada but the use of census sub-divisions by Statistics Canada provides more compartmentalized data. The communities that make up Stoney Tribal Administration are counted as only one community by INAC and three by Statistics Canada.

For the purpose of this document, the working number of communities is defined as 45 and includes:

- **Treaty 6** - located in central Alberta and consists of the following 17 communities: Alexander, Alexis, Beaver Lake, Cold Lake, Enoch, Ermineskin, Frog Lake, Heart Lake, Kehewin, Louis Bull, Montana, O'Chiese, Paul, Pigeon Lake, Samson and Sunchild.
- **Treaty 7** - located in southern Alberta and comprises the communities of Big Horn, Blood, Eden Valley, Piikani, Siksika, Stoney and Tsuu T'ina.



**First Nations in Alberta**

1. Athabasca Chipewyan First Nation
2. Beaver First Nation
3. Bigstone Cree Nation
4. Chipewyan Prairie First Nation
5. Dene Tha' First Nation
6. Driftpile First Nation
7. Duncan's First Nation
8. Fort McKay First Nation
9. Fort McMurray First Nation
10. Horse Lake First Nation
11. Kapawe'no First Nation
12. Little Red River Cree Nation
13. Loon River First Nation
14. Lubicon Lake Indian Nation (no reserve)
15. Mikisew Cree First Nation
16. Sawridge Band
17. Smith's Landing First Nation
18. Sturgeon Lake Cree Nation
19. Sucker Creek First Nation
20. Swan River First Nation
21. Tallcree First Nation
22. Whitefish Lake First Nation (Atikameg)
23. Woodland Cree First Nation
24. Alexander First Nation
25. Alexis Nakota Sioux First Nation
26. Beaver Lake Cree Nation
27. Cold Lake First Nations
28. Enoch Cree Nation
29. Ermineskin Cree Nation
30. Frog Lake First Nation
31. Heart Lake First Nation
32. Kehewin Cree Nation
33. Louis Bull Tribe
34. Montana First Nation
35. O'Chiese First Nation
36. Paul First Nation
37. Saddle Lake First Nation
38. Samson Cree Nation
39. Sunchild First Nation
40. Whitefish Lake First Nation #128 (Goodfish Lake)
41. Blood Tribe
42. Piikani Nation
43. Siksika Nation
44. Stoney Tribe
  - Bearspaw (Eden Valley)
  - Chiniki (Morley)
  - Wesley (Big Horn)
45. Tsuu T'ina Nation

Source: *First Nations in Alberta*, Indian and Northern Affairs Canada, 2009

- **Treaty 8** - located in the northern part of Alberta and includes 21 communities: Athabasca Chipewyan, Atikameg, Beaver, Bigstone, Dene Tha', Driftpile, Duncan, Fort McKay, Fort McMurray, Horse Lake, Janvier, Kapawe'no, Little Red River, Loon River, Mikisew, Sawridge, Sturgeon Lake, Sucker Creek, Swan River, Tall Cree and Woodland Cree. Two communities are not included on this list: Smith's Landing, which recently received the status of reserve, and Lubicon which is negotiating recognition as a reserve.

There is great cultural diversity within First Nations communities in Alberta and a broad range of languages spoken. The most common First Nations languages in Alberta are Blackfoot, Cree, Chipewyan, Dene, Sarcee and Stoney (Nakoda Sioux).

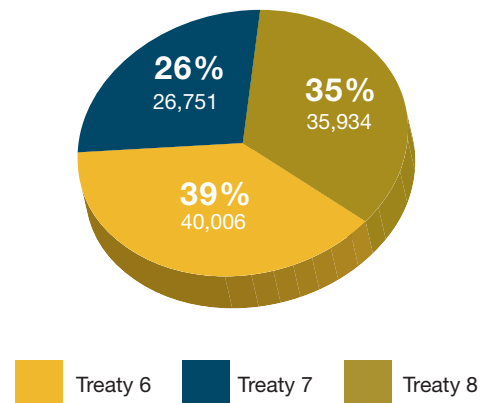
INAC's Indian Registry provides membership information for each band. Figure 1 shows that 39 per cent of the First Nations registered to Alberta bands are registered to bands in Treaty 6, 26 per cent are registered with bands within Treaty 7 and 35 per cent are registered to bands in Treaty 8.

While INAC's Indian Registry also provides residence data to indicate whether an individual is residing on-reserve, on crown land or off-reserve, the information is typically registered at major life events and its accuracy may vary by community.

As of December 31, 2008, the Indian Registry for Alberta indicates that 43 per cent of First Nations living on-reserve are Treaty 6 members, 31 per cent are Treaty 7 members and 26 per cent are Treaty 8 members. In comparing Figure 1 and 2, it appears that while the number of individuals registered to Treaty 8 bands is significantly higher than for Treaty 7, its on-reserve population is actually lower than that of Treaty 7.

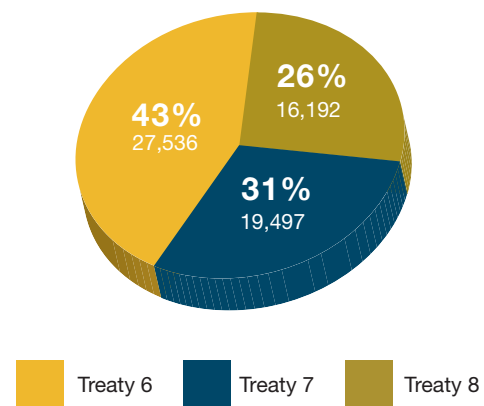
The 2005 Indian Registry indicates a slightly higher proportion of First Nations living on-reserve (65 per cent) as compared to the 2006 Census (59 per cent).

> **Figure 1:** Band Registration by Treaty Area in Alberta (2008)



Source: Indian Registry, Indian and Northern Affairs Canada, 2009

> **Figure 2:** On-Reserve Population by Treaty Area in Alberta (2008)



Source: Indian Registry, Indian and Northern Affairs Canada, 2009

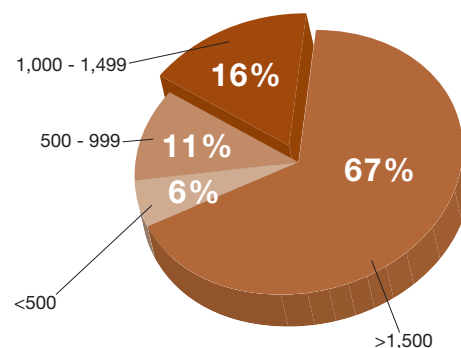
First Nations communities in Alberta vary considerably in size. Table 1 provides population data for each of the First Nations communities in Alberta. The table provides data from INAC's Indian Registry for the membership of each band including total, on-reserve and crown land residence for the membership. The following should be considered:

- The Indian Registry combines the membership of Saddle Lake and Goodfish Lake (Whitefish Lake 128) as it is recognized as only one nation.
- For most communities, few members reside on crown land, however, it is not the case for a few First Nations communities in Alberta including, Athabasca Chipewyan, Bigstone and Mikisew.

Using INAC's Indian Registry, Figure 3 shows that the majority of First Nations who live on-reserve in Alberta live in larger communities. In fact, 67 per cent live in the eleven on-reserve communities with a population over 1,500 and 83 per cent live in on-reserve communities with a population over 1,000. This high proportion of First Nations living in larger on-reserve communities in Alberta is atypical as many other provinces have a very different population distribution. For example, while a similar number of First Nations individuals live in both British Columbia and Alberta, there are five times more First Nations communities in British Columbia (198) than in Alberta (44).



> **Figure 3:** On-Reserve First Nations Population Distribution by Community Size, Alberta (2008)



Source: *First Nation Profiles*, Indian and Northern Affairs Canada Website



> **Table 1:** Population Data for First Nations Communities

Communities	INAC Total Population	INAC On-Reserve Population	INAC Crown Land Population
<b>TREATY 6</b>	<b>40,006</b>	<b>27,536</b>	<b>186</b>
Alexander	1,814	989	3
Alexis	1,623	957	1
Beaver Lake	919	351	12
Cold Lake	2,365	1,241	2
Enoch	2,101	1,525	3
Ermieskin	3,802	2,904	104
Frog Lake	2,563	1,682	4
Heart Lake	297	194	0
Kehewin	1,799	1,049	26
Louis Bull	1,884	1,559	9
Montana	892	698	1
O'Chiese	999	714	1
Paul	1,822	1,277	1
Saddle Lake & Goodfish Lake	8,918	5,919	12
Samson	6,992	5,652	7
Sunchild	1,216	825	0
Whitefish Lake (IR 128)	n/a	n/a	n/a
<b>TREATY 7</b>	<b>26,751</b>	<b>19,497</b>	<b>17</b>
Big Horn (Wesley)	1,478	1,340	5
Blood	10,498	7,671	3
Eden Valley (Bears paw)	1,630	1,514	0
Morley (Chiniki)	1,620	1,498	2
Piikani	3,474	2,360	1
Siksika	6,386	3,709	6
Tsuu T'ina	1,665	1,405	0
<b>TREATY 8</b>	<b>35,934</b>	<b>16,192</b>	<b>2,572</b>
Athabasca Chipewyan	876	16	222
Atikameg	2,123	1,131	244
Beaver	832	408	3
Bigstone	7,103	2,616	672
Dene Tha'	2,633	1,904	7
Driftpile	2,336	867	0
Duncan	226	132	0
Fort McKay	647	332	5
Fort McMurray	602	258	1
Horse Lake	900	408	0
Janvier	696	335	0
Kapawe'no	313	102	0
Little Red River	4,328	3,431	403
Loon River	484	390	9
Lubicon	429	35	219
Mikisew	2,537	188	590
Sawridge	380	42	0
Smith's Landing	314	0	154
Sturgeon Lake	2,657	1,347	0
Sucker Creek	2,377	684	8
Swan River	1,100	360	0
Tallcree	1,070	506	3
Woodland Cree	971	700	32
<b>TOTAL</b>	<b>102,691</b>	<b>63,225</b>	<b>2,775</b>

Source: Indian Registry; Indian and Northern Affairs Canada, 2008

# First Nations Population

The Data Sources and Limitations section (See Section 2, Page 4) outlines some of the limitations in using different datasets. These limitations are amplified when asking the following question: How many First Nations call Alberta home?

Three data sources use different methods:

- In its 2006 Census, Statistics Canada states that 91,400 individuals in Alberta identified themselves as North American Indian and 169,355 individuals indicated having North American Indian ancestry. The 2006 Census also indicates that 14 per cent of First Nations living in Canada are living in Alberta.
- As of December 31, 2008, Indian and Northern Affairs Canada indicates that 103,441 First Nations individuals were registered with bands in Alberta. Being registered to a band in Alberta does not automatically mean Alberta residency and many First Nations living in Alberta may not be registered with Alberta bands.
- Until January 1, 2009, Health Canada paid the health care premiums for all First Nations living in Alberta. The province invoiced the federal government for approximately 125,000 individuals.

## Demographics

This section marks the beginning of the comparative work in this report as it examines the population pyramids for the First Nations and Alberta populations and illustrates the significant differences between the population distribution of First Nations registered to bands in Alberta (3.3 per cent of the total Alberta population) and the overall population in Alberta.

Figure 4 shows the First Nations population pyramid based on data from the Indian Registry. The population pyramid has a triangular shape with a very large base—indicative of a younger population with a high birth rate.

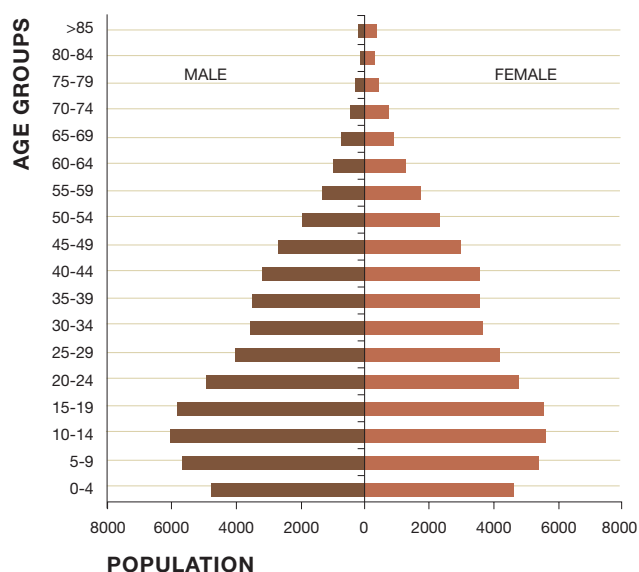


The base appears to be getting smaller. It may be the case for the 5 to 9 age group, however, caution should be used for the younger age group (0-4). Delays in reporting births and deaths to the Indian Registry may explain its smaller size.

Over half of the population (52 per cent) of the First Nations population in Alberta is under 25 years of age and less than five per cent of the population is over the age of 64. The 2006 Census indicates that the median age for First Nations in Alberta is 23 years.

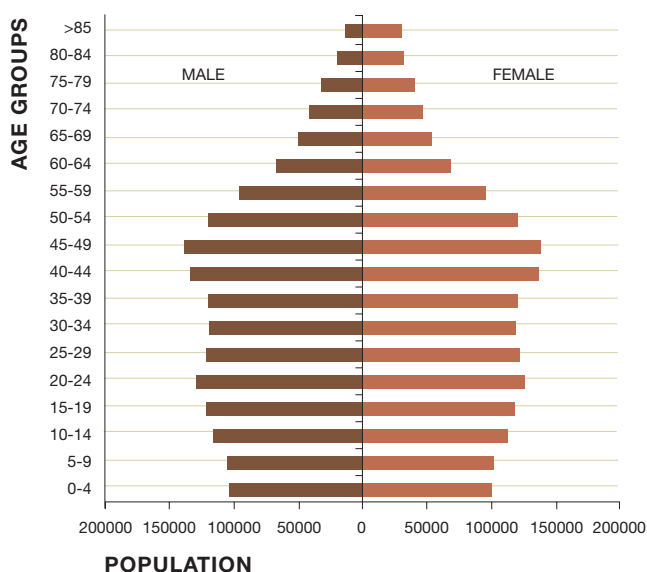
The needs of a younger population are quite different from the needs of an older population especially for key social areas such as health and education. A younger population would have rapidly increasing enrolment in schools and daycares, higher demand for maternal child health programs and immunization.

> **Figure 4:** Distribution of the Alberta First Nations Population by Age and Gender (2008)



Source: Indian Registry as of December 31, 2008, Indian and Northern Affairs Canada

> **Figure 5:** Distribution of the Alberta Population by Age and Gender (2006)



Source: 92-591-XWE, 2006 Census, Statistics Canada

Figure 5 represents the population pyramid for the Alberta population. It is indicative of an aging population. The “baby-boom” generation, born between 1946 and 1965, can be seen by the widening of the pyramid for the 40 to 55 age group.

The 2006 Census indicates that the median age for Albertans was 35.5 years, which is slightly younger than the Canadian median age of 38.8 years<sup>5</sup>, but much older than the median age of Alberta’s First Nations population (23 years of age).

**Median Age:**

First Nations in Alberta:	23.0
Albertans:	35.5
Canadians:	38.8

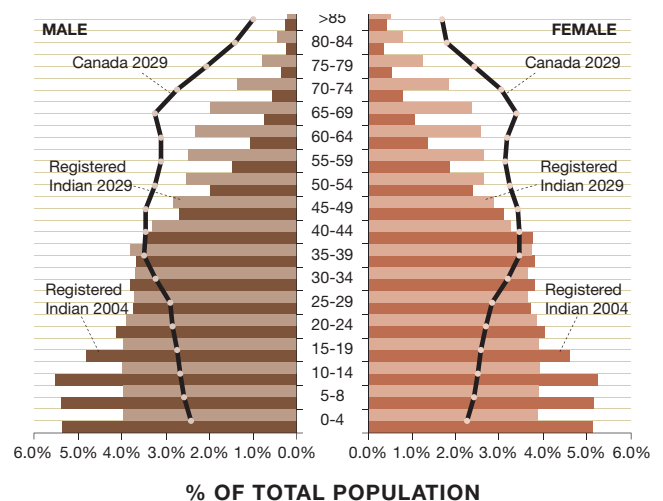
<sup>5</sup> Canadian Demographics at a Glance, catalogue no, 91-003-X, Statistics Canada



## Population Growth

Indian and Northern Affairs Canada (INAC) has developed projection models for the population growth of registered Indians. It forecasts that the number of registered Indians in Canada will grow from 764,300 in 2004 to 1,069,600 in 2029<sup>6</sup>. Figure 6 illustrates INAC’s projections for the Canadian registered Indian population in 2029, which will remain much younger than the Canadian population, but will be aging nonetheless. Its youngest cohort, under the age of 25, will be important, but not as significant as it is today, and will have a much larger cohort of elderly individuals (65 and over).

> **Figure 6:** Age-gender Pyramid for Registered Indians and Canadians\*, 2004 and 2029

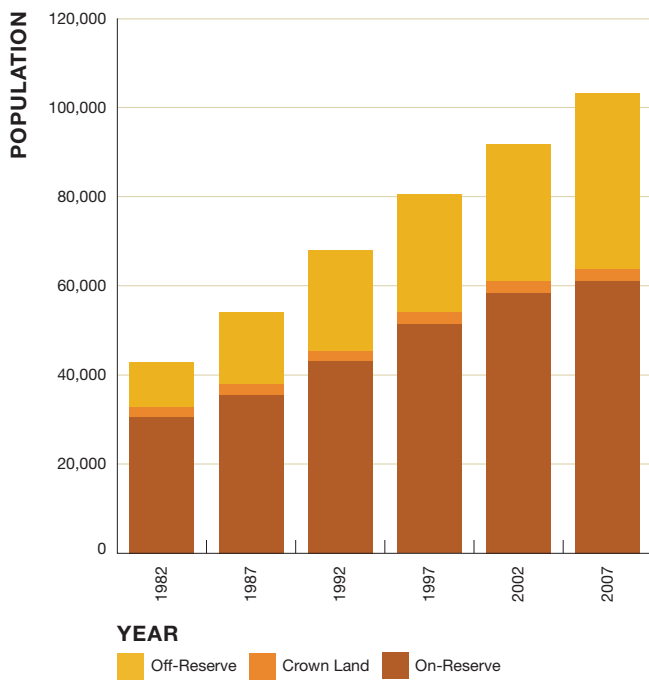


Source: Steffler, J., “Registered Indian Population, Household and Family Projections, 2004-2029”, Strength in Numbers Conference, hosted by Statistics Canada

<sup>6</sup> Steffler, J. “Registered Indian Population, Household and Family Projections, 2004-2029”, Strength in Numbers Conference, hosted by Statistics Canada



> **Figure 7:** Registered First Nations Population Alberta Region (1982-2007)



**Source:** *Historical Trends – Registered Indian Population Alberta Region 1982-2005, Indian and Northern Affairs Canada and Indian Registry, Indian and Northern Affairs Canada*

The First Nations population has been growing rapidly. Figure 7 shows that the number of First Nations living in Alberta has more than doubled in the past 25 years. INAC projects that by 2029, the number of Indians registered to Alberta bands will increase to more than 157,800<sup>7</sup>.

A marked increase is also noted between the 1996 and 2006 Censuses, indicating the First Nations population grew by 32.1 per cent in Alberta, increasing slightly faster than the national First Nations population, which grew by 29.1 per cent.



<sup>7</sup> Ibid.

This significant increase<sup>8,9</sup> in the number of people who identify as “Native American Indian” in the census cannot simply be explained by a natural population increase<sup>10</sup>.

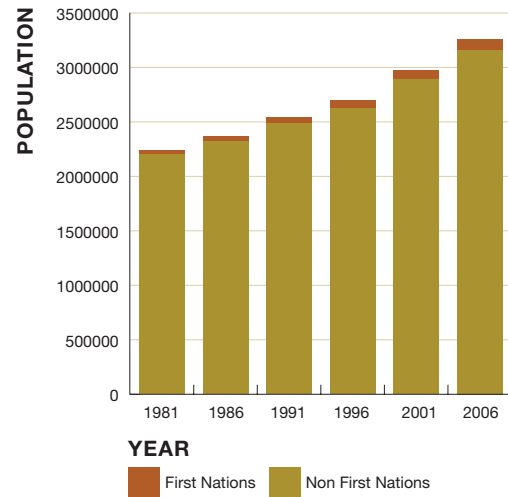
Rather, the increase is largely due to ethnic mobility.

Ethnic mobility explains population growth through social factors. For example, a number of policy and legal decisions, such as Bill C-31, has had a significant impact on both the individuals identifying as “American Indian” in the census as well as the increase of registered Indians in the Indian Registry. Furthermore, an increasing number of individuals are identifying themselves as First Nations including children of mixed unions.

The 2006 Census indicates that many First Nations live in Alberta’s two largest cities—22,440 in Edmonton and 10,875 in Calgary.

In examining population growth, it is also important to look at the provincial context. Figure 8 demonstrates the rapid increase in population in Alberta, especially between 1996-2006. In 2006, Alberta recorded the fastest population growth among Canadian provinces, surpassing British Columbia as the favoured destination for migrants within Canada. Alberta also counted two of the six fastest growing metropolitan economies in Canada—Edmonton and Calgary.

> **Figure 8:** Alberta Population (1981-2006)



Source: *Population Urban and Rural by Province and Territory (Alberta)*, Statistics Canada, 2005

The First Nations population in Alberta is much younger than the Alberta population and is growing rapidly. The rapid growth is not solely due to a high birth rate as it is also fuelled by the increasing number of individuals who identify as First Nations.

<sup>8</sup> Guimond, E. and Robitaille, N. “Aboriginal Populations in Canadian Cities: What’s Behind the Spectacular Growth?”, Strength in Numbers Conference, hosted by Statistics Canada, 2008

<sup>9</sup> Guimond, E. “Fuzzy Definitions and Population Explosion: Changing Identities of Aboriginal Groups in Canada”, Not Strangers in These Parts: Urban Aboriginal Peoples, Policy Research Initiative, 2003

<sup>10</sup> The natural increase is obtained by subtracting the lowest crude death rate from the highest crude birth rate and it cannot in theory exceed the maximum crude birth rate of 5.5%.

# Vital Statistics

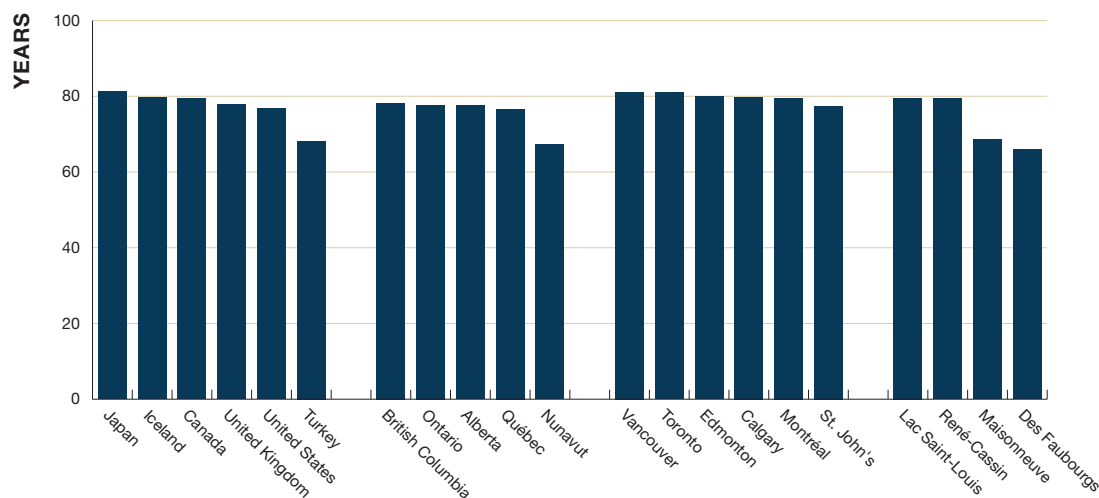
This section seeks to provide vital statistics for First Nations and Canadians by sharing information on a few key indicators including life expectancy at birth, health adjusted life expectancy and infant mortality rates.

## Life Expectancy at Birth

Life expectancy at birth is an internationally recognized indicator for the health of a population. Figure 9 shows significant variations across countries, Canadian provinces, urban centres in Canada and neighbourhoods in Montréal, where the life expectancy gap at birth is 13 years. In all cases, life expectancy relates to some of the key issues to be reviewed later including socio-economic factors such as education, employment and income.



> **Figure 9:** Life Expectancy at Birth for Men Living in Various Settings



Source: Canadian Institute for Health Information (CIHI) "Applying a Population Health Perspective to Health Planning and Decision Making", June 2008, Statistics Canada, "Canadian Demographics at a Glance", 2008 and Statistics Canada "Health of Canadians Living in Census Metropolitan Areas", 2004

Significant gaps in life expectancy are observed around the world. A recent study from the World Health Organization<sup>11</sup> presented data for two neighbourhoods in Glasgow, Scotland, where the gap in life expectancy at birth was established at 25 years. In Australia, the life expectancy at birth for Indigenous Australians is 17 years shorter than for non-Indigenous Australians<sup>12</sup>.

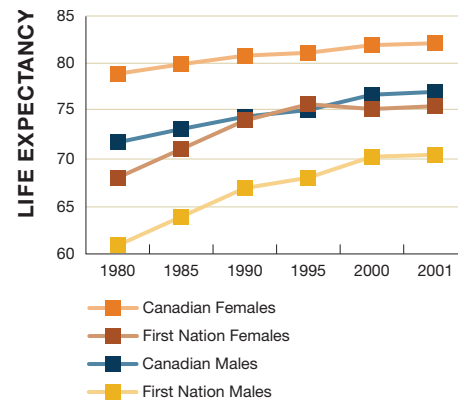
Figure 10 illustrates the life expectancy at birth for First Nations and Canadians. It highlights the following:

- Life expectancy for First Nations is lower than for other Canadians, but the gap is closing.
- As with the Canadian population, First Nations women can expect a longer life than First Nations men.

Figure 10 shows that the gap in life expectancy between First Nations and Canadians has been almost halved within a 20-year period. This reduction may reflect gains in infant mortality rates (Figure 14), improved sanitation and better management of health conditions and diseases

While life expectancy at birth data for Albertans were available, similar information for First Nations in Alberta was not, as the data from vital statistics do not include a First Nations identifier and cannot be adequately linked to the information on the Indian Registry.

> **Figure 10:** Projected Life Expectancy at Birth (1980-2001)



Source: Basic Departmental Data (2004), Indian and Northern Affairs Canada

<sup>11</sup> Closing the gap in a generation: Health inequity through action on the social determinants of health, Commission on Social Determinants of Health, World Health Organization, 2008

<sup>12</sup> Prime Minister's Annual Statement to Parliament on Closing the Gap, Closing the Gap on Indigenous Disadvantage: The Challenge for Australia, Australia, 2009



## Health Adjusted Life Expectancy (HALE)

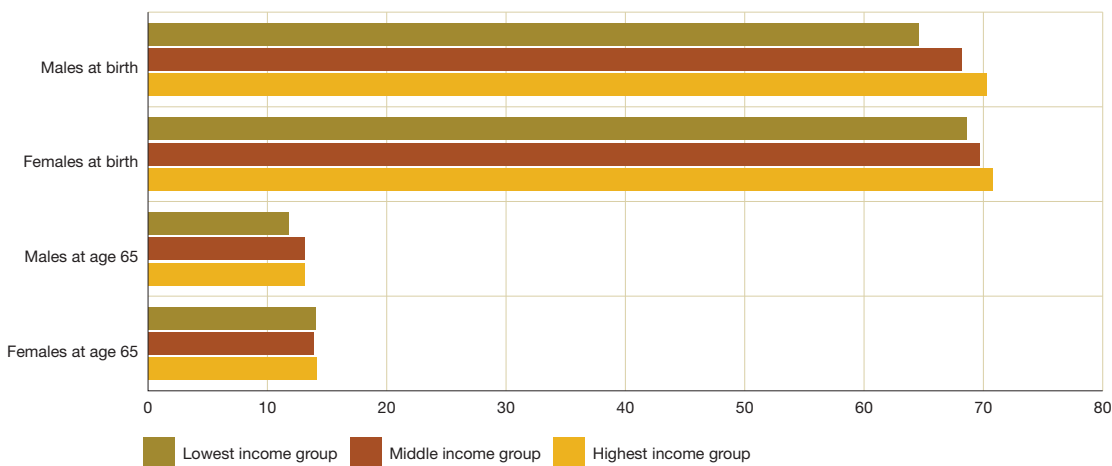
Health Adjusted Life Expectancy (HALE) is a relatively new indicator that represents the number of expected years of life equivalent to years lived in full health based on the average experience in a population. Therefore, HALE is not only a measure of quantity of life but also a measure of quality of life. More accurately, HALE measures *health expectancy* as opposed to simply life expectancy.

Figure 11 provides HALE information for the Alberta population based on income and gender at birth, and at 65 years of age. The graph demonstrates the impact of income (divided equally into three groups) on the health adjusted life expectancy and shows that Albertans born in families with higher income tend to live healthier and longer lives; the gaps are narrower for women than for men. The graph also shows that at age 65, income has no impact on the health adjusted life expectancy of women and it only has an impact on the lowest income group for men.



are presented, demonstrating that First Nations tend to have lower income than other Albertans and Canadians. Income will also be correlated with education and employment, see Sections 9 and 10.

> **Figure 11:** Health Adjusted Life Expectancy by Income Group for Albertans (2001)



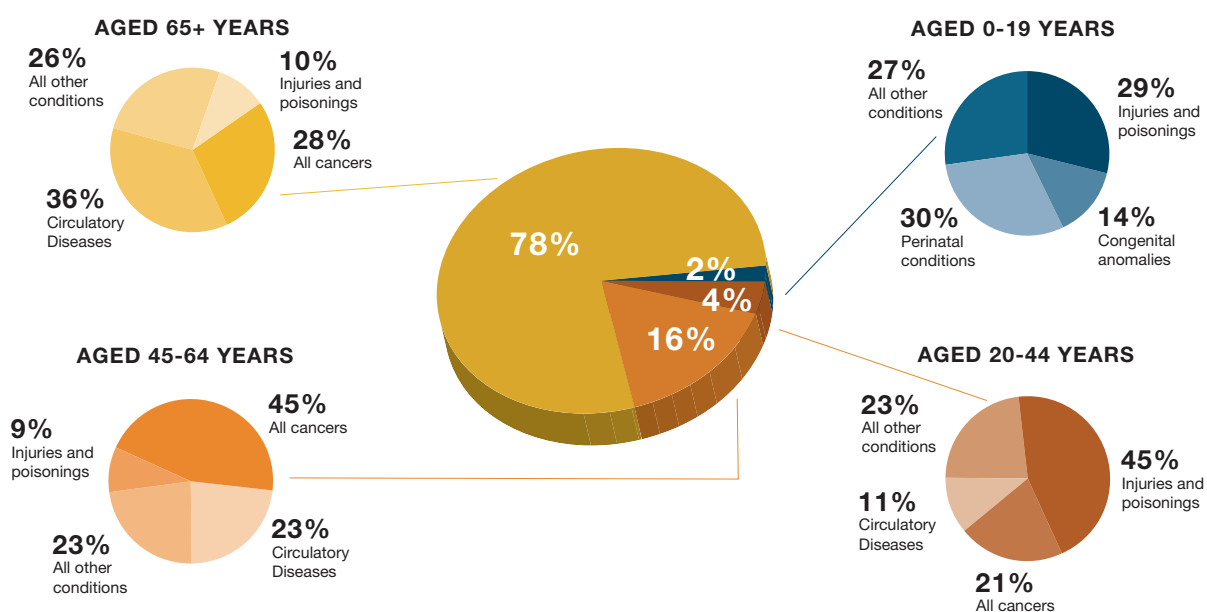
Source: Statistics Canada, "Health-Adjusted Life Expectancy, at Birth and at Age 65, by Sex and Income Group, Canada and provinces", 2001

## Causes of Death

Figure 10 demonstrated that First Nations have lower life expectancy than other Canadians. Figures 12 and 13 examine the leading causes of death for Canadians and First Nations in Alberta. Significant differences are highlighted, they are as follows:

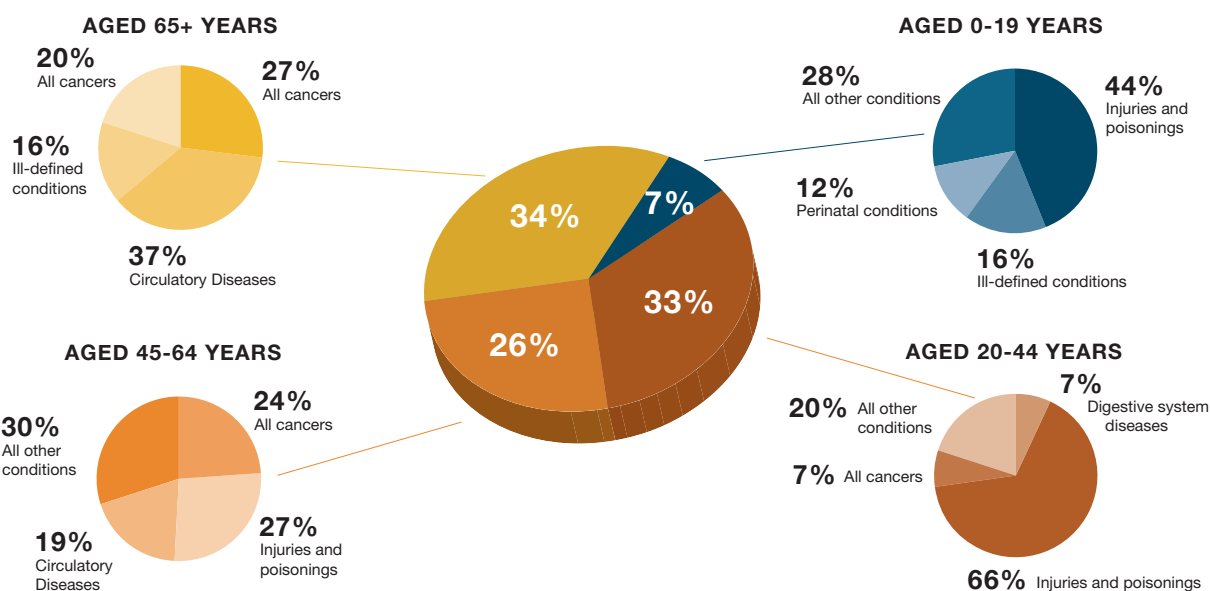
- Seventy-eight per cent of Canadians who passed away in 2004 were over the age of 65, but only 34 per cent of the First Nations individuals who passed away in Alberta in 2003 were in that age group.
- The 0 to 19 age groups accounted for only two per cent of all Canadian deaths in 2004 but represented seven per cent of First Nations deaths in Alberta; while most Canadian deaths were due to perinatal conditions and congenital anomalies, 44 per cent of the First Nations deaths were linked to injuries.
- The 20 to 44 age group represented four per cent of all Canadian deaths but accounted for more than a third of the First Nations deaths in Alberta (34 per cent). The leading cause of death for both Canadians and First Nations in Alberta was injuries and poisonings. A much higher proportion of First Nations deaths (66 per cent) were attributed to injuries and poisonings than for the Canadian population (45 per cent).
- Canadians aged 45 to 64 years of age accounted for 16 per cent of all deaths in 2004 but represented 26 per cent of First Nations deaths in Alberta in 2003; once again, the proportion of deaths related to injuries and poisonings was much higher for First Nations (27 per cent) than for Canadians (nine per cent).

> **Figure 12:** Mortality by Select Causes and Age Groups, Canada 2004



Source: *The Chief Public Health Officer's Report on the State of Public Health in Canada 2008 – Addressing Health Inequalities*, Public Health Agency of Canada

> **Figure 13: Mortality by Select Causes and Age Groups, First Nations in Alberta (2003)**



Source: Health Canada, FNIH Alberta Region, Alberta Government Services, Vital Statistics

## Infant Mortality Rates

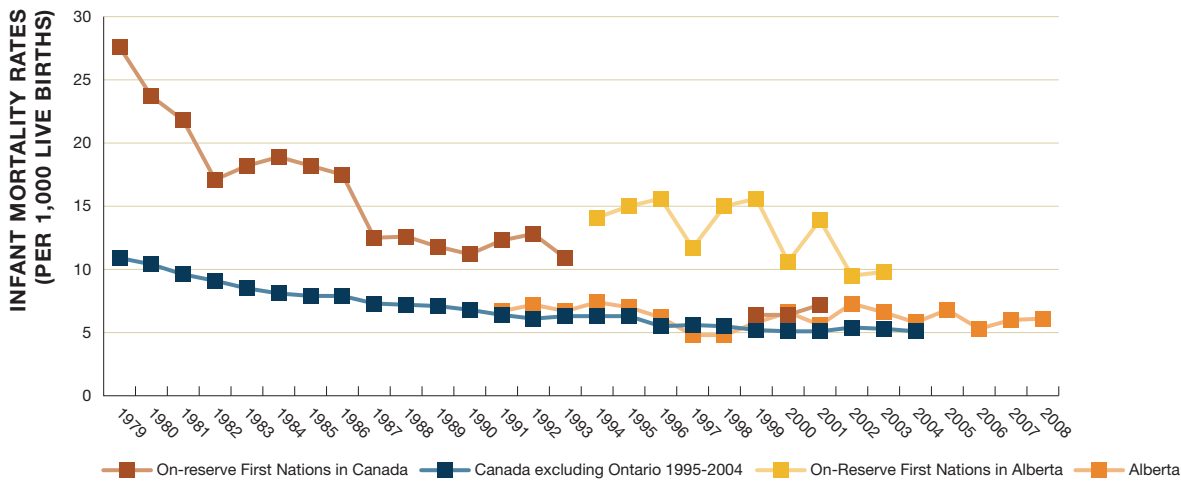
Infant mortality rate refers to the number of infants who die in the first year of life per 1,000 births<sup>13</sup>. It is also an internationally recognized health indicator as it is often used as a measure of a country's health or development<sup>14</sup>. Canada's infant mortality rate is higher than many industrialized nations including Japan, Sweden, Norway, Finland, Germany, France, Italy, Belgium, Netherlands, Australia and Switzerland<sup>15</sup>.

<sup>13</sup> The Well-Being of Canada's Young Children, Government of Canada Report 2008

<sup>14</sup> Ibid.

<sup>15</sup> Closing the gap in a generation: Health inequity through action on the social determinants of health, Commission on Social Determinants of Health, World Health Organization, 2008

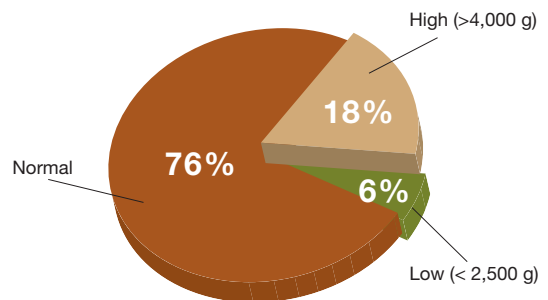
> **Figure 14:** Infant Mortality Rate in Alberta and Canada (1979-2003)



Source: Basic Departmental Data (2004), Indian and Northern Affairs Canada, Canadian Perinatal Health report, 2008 Edition, Public Health Agency of Canada, 2008, Health Canada, FNIH – Alberta Region, Alberta Government Services, Vital Statistics

Figure 14 indicates that the Canadian infant mortality rate has been declining steadily over the last three decades but as with many other industrialized countries it is levelling off, perhaps due to increasing number of women deferring child birth and rise in multiple births linked with fertility treatment. The Canadian First Nations infant mortality rate has improved drastically since 1979. The data for infant mortality rate for First Nations in Alberta are more limited, covering only a few years and showing significant variability. It is much higher than the other infant mortality rates.

> **Figure 15:** Birth Weight as a Percentage of Total Live Births for First Nations in Alberta (2000-2003)



Source: Health Canada, FNIH-Alberta Region, FNBD (First Nations Births Database), Alberta Government Services, Alberta Vital Statistics, 2007

## Birth Weight

Figure 15 shows that the majority of First Nations babies born in Alberta have a healthy weight (76 per cent). Cause for concern, however, is the fact that 18 per cent of First Nations babies born in Alberta have a high birth weight<sup>16</sup>.

<sup>16</sup> Data for this chart is compiled using both the Indian Registry and Vital Statistics. 223 births (9 per cent) have an unknown birth weight, this is most likely due to the fact that the births are identified in the Indian Registry but not in Alberta's Vital Statistics as these babies were likely born outside the province.



Low birth weight may be the result of a pre-term birth or restricted foetal (intrauterine) growth. It has been shown that low birth weight due to restricted foetal growth can lead to higher incidence of adult diseases such as Type 2 diabetes, hypertension and cardiovascular disease<sup>17</sup>.

High birth weight has been identified as a risk factor for a number of immediate and long-term health concerns including:

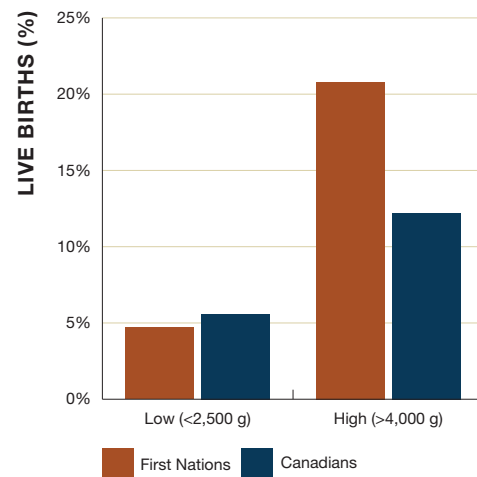
- Complications with childbirth such as shoulder dystocia and increased rate of caesarean delivery
- Diabetes
- Obesity through childhood and adulthood
- Maternal obesity
- Prolonged gestation
- Maternal diabetes (including gestational, chemical or insulin dependent)<sup>18</sup>

Figure 16 highlights that significant differences exist in the proportion of low and high birth weights between Canadian and First Nations babies. First Nations babies are more likely to have a high birth weight than their Canadian counterparts.

Life expectancy at birth and infant mortality rates for First Nations have improved significantly in the last few decades but are still trailing those of the Canadian population.

Injury is the leading cause of death for First Nations.

> **Figure 16:** National Low and High Birth Weights as a Percentage of Total Live Births (2000)



Source: *A Statistical Profile on the Health of First Nations in Canada (2000)*, Health Canada, 2003



<sup>17</sup> The Well-Being of Canada's Young Children, Government of Canada Report 2008

<sup>18</sup> Ibid

# Health Indicators and Conditions

This section provides information on a number of health indicators and conditions including:

- Self-rated health status
- Body weight
- Chronic health conditions
- Addictions

Most of the data presented in this section are based on self-reported survey information. For additional information on other health indicators for First Nations living in Alberta, such as immunization rates, tuberculosis, sexually transmitted infections and environmental health, consult the annual Health Protection Reports (2003-2007) and the 2008 Health Status Report<sup>19</sup>. Communities may also obtain community-specific information from their community Health Protection Reports, which have been published since 2003.

## Self-Rated Health Status

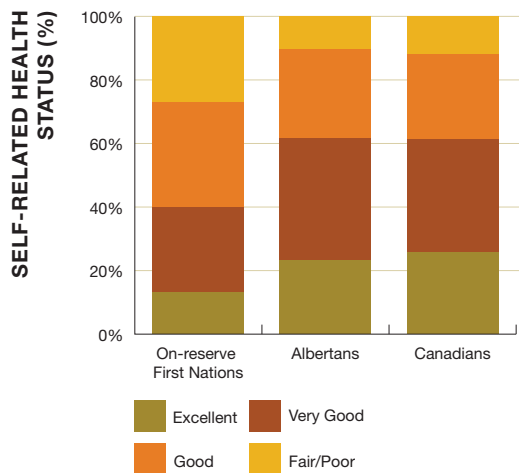
Self-rated health status is a commonly used question in population health surveys. Figure 17 indicates that over 60 per cent of Albertans and Canadians ranked their health as ‘excellent’ or ‘very good’, which is much higher than the rate of 40 per cent for on-reserve First Nations in Canada.

Figure 18 looks at the relationship between self-rated health status and income. These data are from a national survey and is not First Nations-specific. It clearly demonstrates that:

- A higher proportion of Aboriginal people rate their health as ‘fair’ or ‘poor’ than non-Aboriginal people at all income levels.
- The proportion of people reporting their health as fair or poor decreases with increasing income levels.

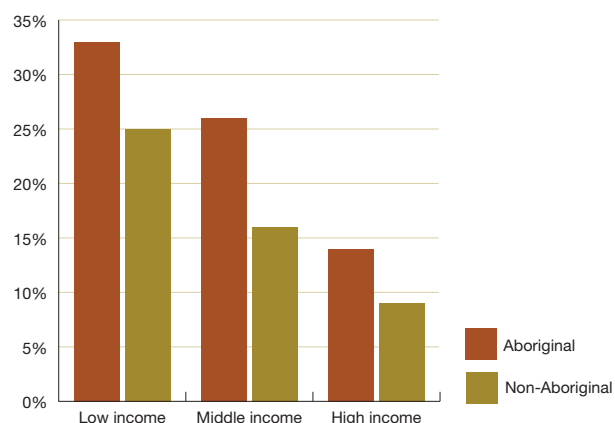
It is possible that the difference in self-rated health status identified in Figure 17 could be linked to differences in income levels.

> **Figure 17:** Self-Rated Health Status for First Nations (2003) and Albertans/Canadians (2000-2001)



Source: *What First Nations People Think about their Health and Health Care*, National Aboriginal Health Organization, 2003, *Self-rated health, by sex household population aged 12 and over*, Statistics Canada, catalogue no. 82-221-XIE, 2002

> **Figure 18:** Percentage of those Reporting Fair or Poor Health by Household Income and Off-Reserve Aboriginal Status, Canada (2000-2001)



Source: *Health Reports: How Healthy Are Canadians? 2002 Annual Report*, catalogue no. 82-003-SIE, Statistics Canada

<sup>19</sup> The regional versions of these reports are available by contacting the Health Assessment and Surveillance unit or the Medical Officer of Health, FNIH – Alberta Region

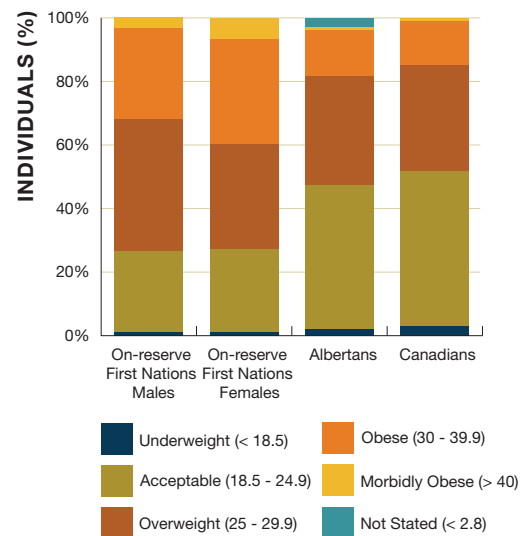
## Body Weight

Body mass index (BMI) and waist circumference are commonly used tools to identify potential health risks. Figure 19 provides information based on different data sources but both rely on a survey question that asks participants to state their height and weight to estimate the BMI of respondents. It has been demonstrated that individuals tend to underestimate their body weight and overestimate their height resulting in underreporting of the number of individuals who are overweight, obese or morbidly obese.

Figure 19 shows that a significant proportion of the population is overweight, obese or morbidly obese. The First Nations Regional Longitudinal Health Survey (RHS) provides the results for First Nations men and women, and indicates that approximately three adults in four are overweight, obese or morbidly obese. For Albertans and Canadians, almost one in two adults is overweight, obese or morbidly obese.

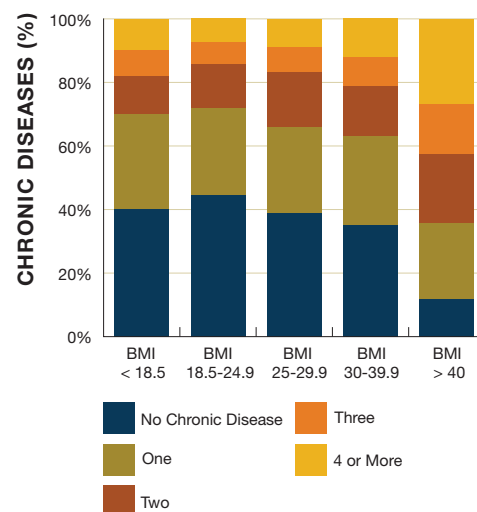
An Alberta study<sup>20</sup> looked more closely at each BMI group and how the prevalence of chronic diseases was reported. While the information is not provided for First Nations, it does provide information on trends and likely occurrences. Figure 20 maps the proportion of individuals within each group who report chronic diseases and shows that the BMI range with the highest proportion of individuals without chronic diseases are those in the normal range (18.5 to 24.9). For the individuals in the morbidly obese BMI range (over 40), the prevalence of chronic diseases is significantly different, as only 12 per cent of them are not reporting a chronic disease other than obesity.

> **Figure 19:** Body Mass Index for Adults, First Nations (2002-2003), Albertans and Canadians (2003)



Source: The First Nations Regional Longitudinal Health Survey (RHS), 2003 Canadian Community Health Survey; Statistics Canada, Alberta Health and Wellness, Healthy Canadians – A Federal Report on Comparable Health Indicators 2004, Health Canada

> **Figure 20:** Alberta BMI and Reporting of Chronic Diseases



Source: Self-Reported Body Mass Index and its correlates in Alberta: A portrait from survey and administrative sources, Alberta Health and Wellness

<sup>20</sup> Self-Reported Body Mass Index and its correlates in Alberta: A portrait from survey and administrative data sources, Health Surveillance, Alberta Health & Wellness, April 2005

Figure 21 provides the BMI for First Nations children and youth in Canada living on-reserve. It shows that children (0 to 11 years of age) are much more likely to be overweight or obese than First Nations youth (12 to 17 years of age). The next edition of the RHS should indicate whether this is a new trend and if obesity rates are increasing among younger First Nations. The RHS did not find any significant differences in BMI rates for First Nations children, however, they did identify gender differences with youth as 62.3 per cent of teenage girls had an underweight and/or normal BMI compared to 54.5 per cent of teenage boys. A higher proportion of First Nations children and youth had a healthy weight in comparison with the adult population.

## Chronic Health Conditions

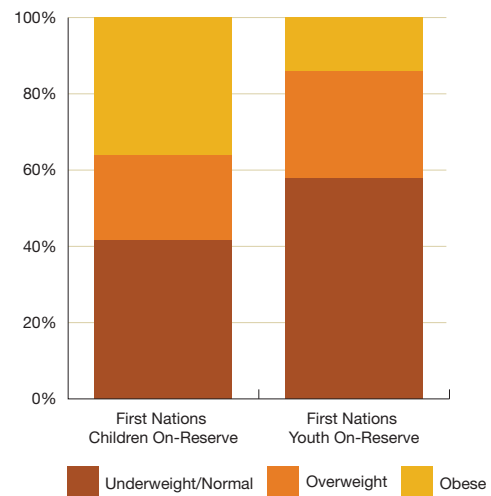
The previous section began to explain the relationship between BMI and chronic health conditions. It is estimated that two thirds of Canadians have at least one modifiable risk factor for a chronic disease<sup>21</sup>:

- Smoking
- Low levels of physical activity
- Unhealthy eating habits
- Being overweight or obese

As with other health indicators, a number of differences are apparent with some chronic health conditions. In their work on the First Nations Regional Longitudinal Health Survey (RHS), the Assembly of First Nations has identified some key chronic health conditions, age-adjusted the rates and established comparisons with the Canadian population based on the information from the 2003 Canadian Community Health Survey.

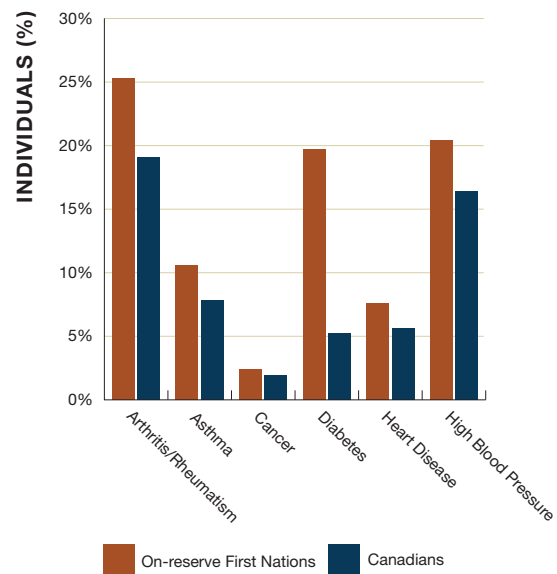
Figure 22 provides a comparison between the on-reserve First Nation and Canadian rates for some specific chronic health conditions. In all cases, on-reserve First Nation rates for chronic diseases are

> **Figure 21:** Body Mass Index for First Nations Children and Youth On-Reserve (2002-2003)



Source: Results for Adults, Youth and Children Living in First Nations Communities, First Nations Regional Longitudinal Health Survey (RHS) 2002-2003

> **Figure 22:** National Chronic Health Conditions



Source: The First Nations Regional Longitudinal Health Survey (RHS), presentation Assembly of First Nations, 2006

<sup>21</sup> Health Canada, 2006 External Environmental Scan, Internal Working Document, 2006

higher than the Canadian population. For diabetes, First Nations are four times more likely to report living with diabetes than the Canadian population.

One of the modifying risk factors for chronic conditions is smoking. Figure 23 shows a much higher proportion of daily smokers among First Nations compared to the populations of both Alberta and Canada. Almost half (46 per cent) of First Nations adults are daily smokers. For Alberta and Canada, the data include all individuals over the age of 12 and indicates that approximately one in four Albertans and Canadians smokes daily.

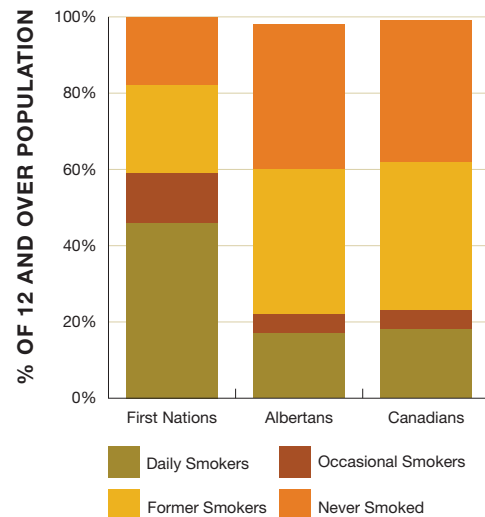
The impact of smoking on health also relates to some of the chronic conditions identified in Figure 22—asthma, many cancers and heart disease. Smoking is recognized as increasing the incidence and morbidity associated with many acute and chronic conditions (e.g., hypertension and diabetes) not included in the figure as well as having an impact on more common illnesses such as cold and flu that tend to linger longer for smokers. Smoking is the most common addiction and its impact is felt on the health of all age groups including infant and children<sup>22</sup>.

## Addictions

Addictions have a significant impact on health and well-being. The information for this section examines data for alcohol consumption and is based on results from the First Nations Longitudinal Regional Health Survey (RHS) and the Canadian Addictions Survey (Alberta component). In both cases, the information is based on self-reported information.

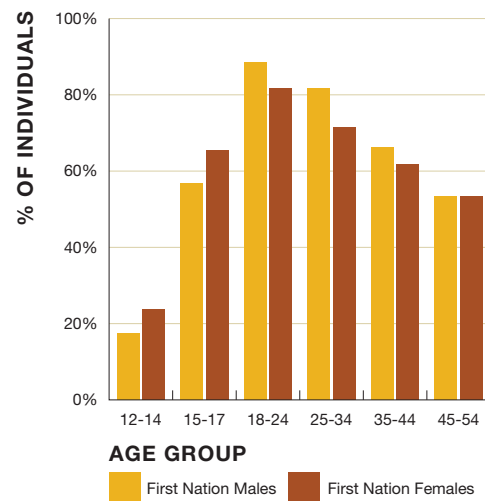
First Nations are much more likely to abstain from alcohol consumption than their Albertan and Canadian counterparts.

> **Figure 23:** National Smoking Status - First Nations (2002), Canadians (2003)



Source: *The First Nations Regional Longitudinal Health Survey (RHS), presentation, Assembly of First Nations and 2003 Canadian Community Health Survey aged 12 and over, Statistics Canada website*

> **Figure 24:** Alcohol Consumption for First Nations across Canada by Age Groups in the Previous Year (2002)



Source: *The First Nations Regional Longitudinal Health Survey (RHS), presentation, Assembly of First Nations, 2006*

<sup>22</sup> Alberta Health Services website, Vineis, P. et al. "Tobacco and Cancer: Recent Epidemiological Evidence", *Journal of the National Cancer Institute*, vol. 96, no. 2, January 21, 2004; DiFranza, J.R., Aligne, C.A., Weitzman, M., "Prenatal and Postnatal Environmental Tobacco Smoke Exposure and Children's Health", *Pediatrics*, vol. 113, no. 4, April 2004



While the Canadian Addictions Survey provides data on drug addictions, it was not possible to identify similar data for First Nations in Alberta. Therefore, this section is limited to examining alcohol addictions and considers:

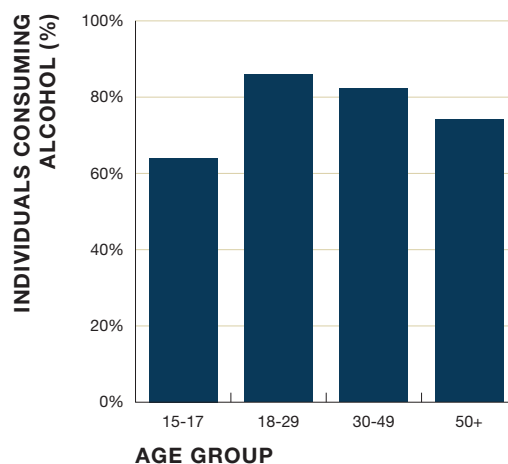
- The proportion of individuals who consume alcohol (regardless of quantity).
- The proportion of individuals who consume alcohol heavily on a regular basis. A commonly accepted benchmark of “binge drinking” or “heavy drinking” is five drinks in one sitting<sup>23</sup>. The data were compiled for those who consumed heavily more than once a month or 12 times a year.

The two datasets use slightly different age groupings and the RHS provides data for both genders. Therefore, the results are presented in separate figures.

Figures 24 and 25 illustrate the proportion of individuals who consumed alcohol in the year prior to the survey. Despite the challenges posed by the different age grouping, the data show consistency in terms of alcohol consumption between First Nations and Albertans except for the older age groups where there is a higher proportion of abstinence for First Nations<sup>24</sup>. The RHS survey shows differences between genders, highlighting that among younger drinkers, young women report drinking at a higher rate than young men.

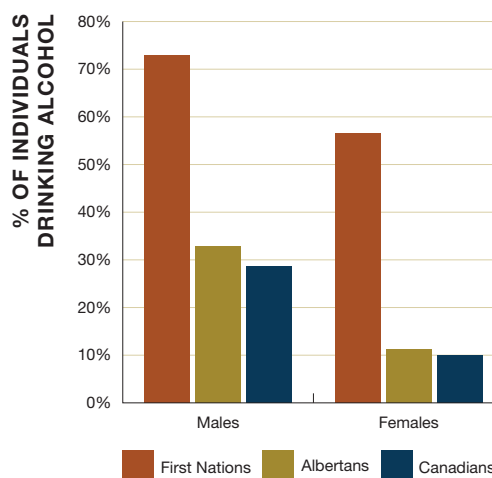
A recent study indicates that the Canadian mean<sup>25</sup> age of initiation to alcohol for Canadians is 15.6 years of age. A study of drinking and driving among First Nations youth in Alberta revealed that many had taken their first drink around the age of 12<sup>26</sup>. A number of studies<sup>27</sup> have also demonstrated that the younger age of initiation to alcohol (usually under 15) tends to increase the likelihood of substance addiction at a later age.

> **Figure 25:** Alcohol Consumption for Albertans by Age Groups (2004)



Source: Canadian Addiction Survey 2004 – Alberta Report, Alberta Alcohol and Drug Abuse Commission (2006)

> **Figure 26:** Heavy Drinking more than 12 Times a Year by Gender for First Nations (2002) and Canadians (1998-1999)



Source: The First Nations Regional Longitudinal Health Survey (RHS), presentation, Assembly of First Nations and Frequency of drinking five or more drinks in one occasion in the last 12 months by sex, household population aged 12 and over who are current drinkers, Canada and the provinces, 1998-1999, Statistics Canada website

<sup>23</sup> Health Canada, Canadian Addictions Survey: A National Survey of Canadians’ Use of Alcohol and Other Drugs, 2005

<sup>24</sup> Thatcher, R.W., Fighting Firewater Fictions: Moving Beyond the Disease Model of Alcoholism in First Nations, 2004

<sup>25</sup> Health Canada, Canadian Addictions Survey: A National Survey of Canadians’ Use of Alcohol and Other Drugs – Substance Use by Canadian Youth, 2007

<sup>26</sup> Rothe, P. et al. “A Qualitative Inquiry into Drinking and Driving among Alberta’s First Nations Post-Secondary Youth Aged 18-29”, Alberta Centre for Injury Control and Research, 2004

Both surveys also sought to examine the extent of “binge drinking” or “heavy drinking”, which is defined as having more than five drinks in one sitting<sup>28</sup>. Figure 26 demonstrates significant differences in the drinking pattern between First Nations, Albertans and Canadians as it shows a much higher proportion of First Nation drinkers that indicated drinking heavily more than 12 times a year. In other words, less First Nations drink in comparison to their Canadian counterparts, but those who drink tend to drink more.

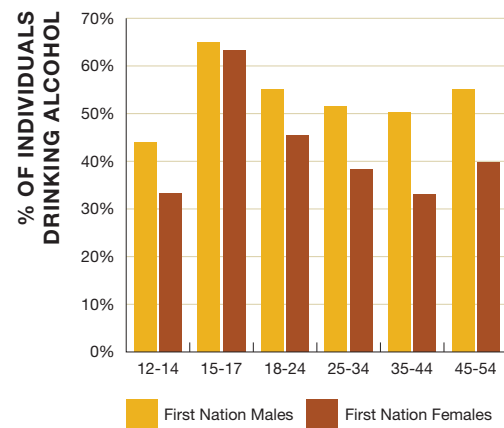
Both surveys provide information on heavy drinking by age groups and the findings are provided in Figures 27 and 28.

The key findings are as follows:

- While Figures 24 and 25 illustrate a much higher abstinence rate for First Nations as compared with the rest of the population, they also indicate a higher level of heavy drinking for First Nations as compared with the Alberta population and across age groups.
- A significant proportion of First Nations youth (12 to 17 years of age) drink heavily more than once a month. These results are particularly troubling for young women; Figures 33 to 35 will show that many First Nations babies are born to teenage mothers.

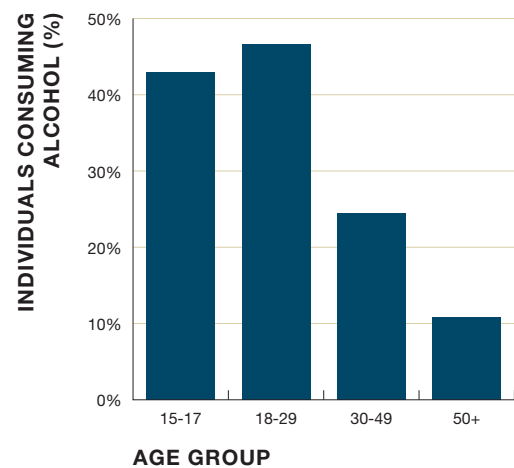
Self-reported health status is lower for First Nations than for Albertans and Canadians. This is reinforced by information on key risk factors for chronic conditions including body weight, smoking and addictions.

> **Figure 27:** Heavy Drinking more than 12 Times a Year by Age Group for First Nations in Canada (2002)



Source: *The First Nations Regional Longitudinal Health Survey (RHS), Assembly of First Nations*

> **Figure 28:** Heavy Drinking more than 12 Times a Year by Age Group for Albertans (2004)



Source: *Canadian Addictions Survey 2004 – Alberta Report, Alberta Alcohol and Drug Abuse Commission (2006)*

<sup>27</sup> DeWit, DJ et al. “Age at First Alcohol Use: A Risk Factor for the Development of Alcohol Disorders”, *American Journal of Psychiatry*, May 2000; Health Canada, *Canadian Addictions Survey: A National Survey of Canadians’ Use of Alcohol and Other Drugs – Substance Use by Canadian Youth, 2007*; Pitkanen, T. et al. “Age of Onset of Drinking and the Use of Alcohol in Adulthood: A Follow-Up Study from Age 8-42 for Females and Males”, *Addiction*, Society for the Study of Addiction, 2005

<sup>28</sup> *Health Reports: How Healthy Are Canadians? 2002 Annual Report*, catalogue no. 82-003-SIE, Statistics Canada

# Social Factors

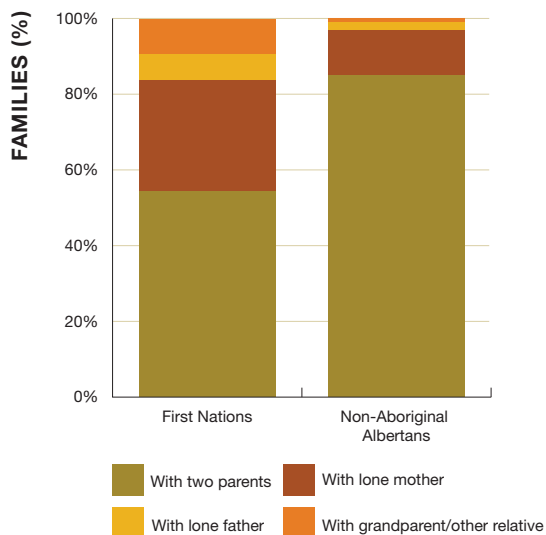
As health is influenced by a variety of factors in the social environment, this section examines a few social factors that may contribute to the wellness of individuals and their communities, namely:

- Family composition
- Young parenthood
- Children in care

## Family Composition

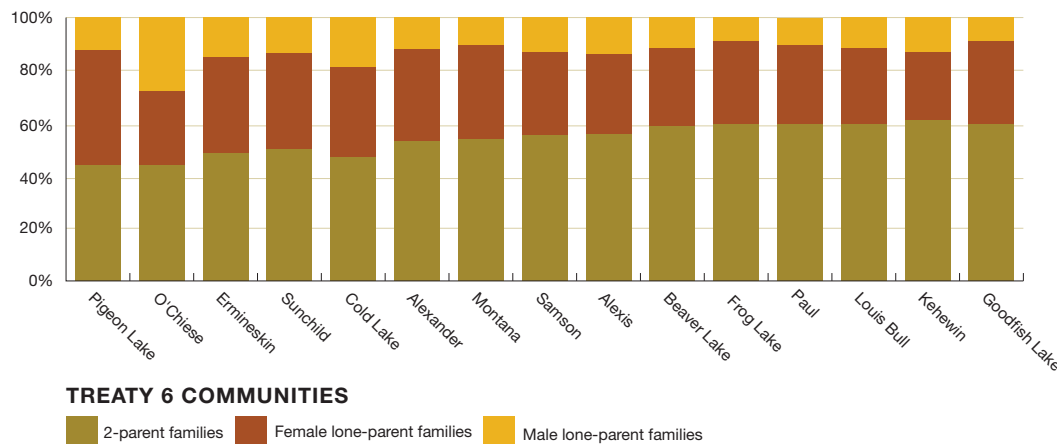
The family composition for children living in Alberta is vastly different for First Nations and non-Aboriginal children as illustrated in Figure 29. While slightly over half of First Nations children live in a two-parent household, well over 80 per cent of non-Aboriginal children do. In both cases, the reference to living in a two-parent household does not necessarily mean living with biological parents.

> **Figure 29:** Family Composition in Alberta (2006)



Source: 2006 Census Aboriginal Data Highlights, Presentation to FNIA Regional Management Committee, Statistics Canada, May 2008

> **Figure 30:** Family Composition for First Nations Communities in Treaty 6 (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008

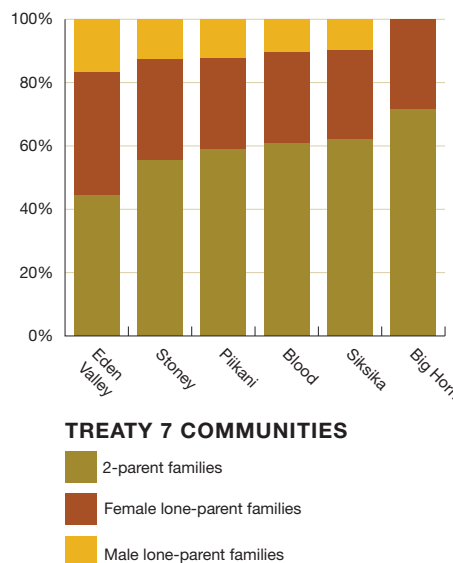
More First Nations children are living with a lone-parent, grandparent or other relative. Only one per cent of non-Aboriginal children live with grandparents or other relatives as compared to nine per cent of First Nations children in Alberta.

Figures 30 to 32 provide information on the differences in family composition in each Treaty area. Figure 30 shows that within Treaty 6, the proportion of children living in a two-parent household ranges from 44 per cent in Pigeon Lake to 62 per cent in Goodfish Lake.

Figure 31 shows significant variations also exist between Treaty 7 communities in terms of family composition. In Eden Valley, 44 per cent of children live in a two-parent household as compared to 71.4 per cent of the children in Big Horn.

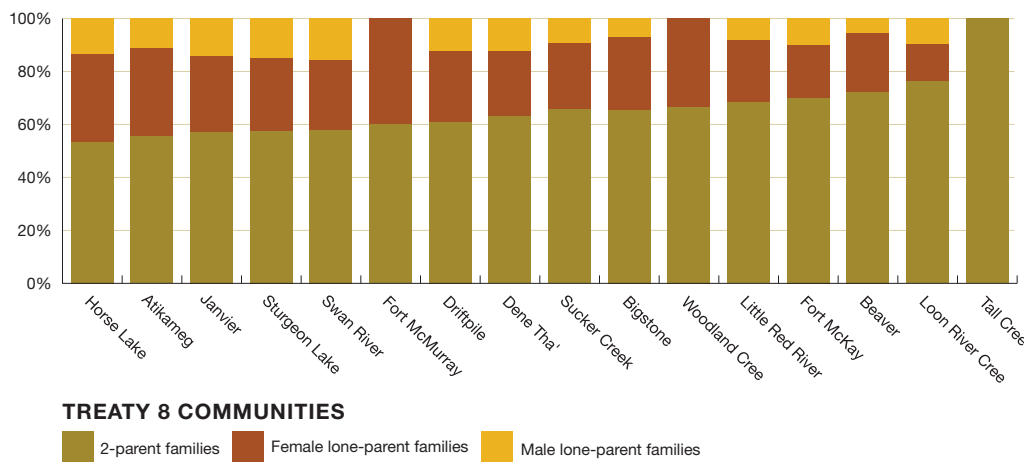
Figure 32 shows that as with other Treaty areas, significant differences exist between communities in Treaty 8. Community variations range from just over half of the children in Horse Lake to all children in Tallcree living in a two-parent household.

> **Figure 31:** Family Composition for First Nations Communities in Treaty 7 (2006)



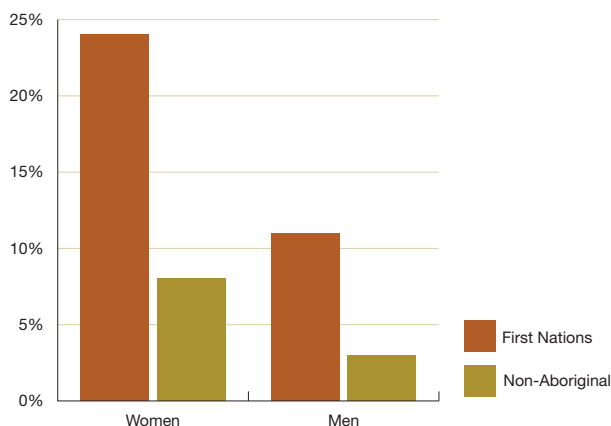
Source: Community profiles, 2006 Census, Statistics Canada website, 2008

> **Figure 32:** Family Composition for First Nations Communities in Treaty 8 (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008

> **Figure 33:** Percentage of Young Parents aged 15-24 in Alberta (2006)



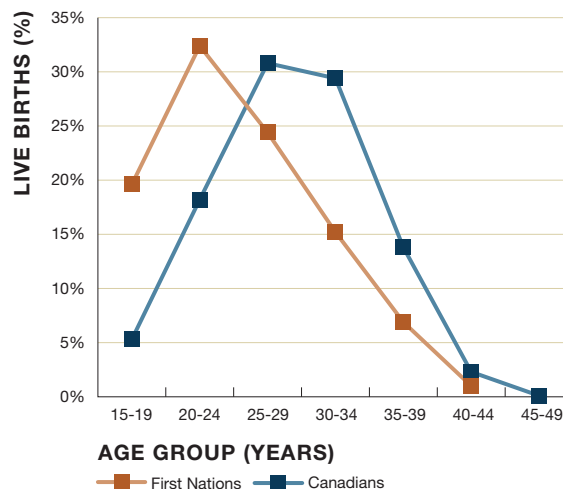
**Source:** Zuchewich, N., "Aboriginal Children and Youth in Alberta", *Strength in Numbers Conference* hosted by Statistics Canada based on data from the 2006 Census, Statistics Canada, Statistics Canada, Canadian Vital Statistics, Birth Database, 2009

Figures 30 to 32 also highlight significant variations across communities, with a number of communities with less than half of the children living in a two-parent household to a few communities reaching provincial levels and higher. Section 9, Income, will provide valuable insight into the relationship between income and family composition, showing significant differences between two-parent and single-parent households as well as between married and common-law families. Section 6, Health Indicators and Conditions, highlights the relationship between income levels and health. Some international studies have looked at the relationship between growing up in an intact 2-parent family and other family compositions. Demonstrated benefits of two-parent families include higher family income, better educational outcomes and increased connectedness to school and family for children<sup>29</sup>.

## Young Parenthood

This section provides information on young parenthood and age of mothers at live birth. Figure 33 shows much

> **Figure 34:** Live Births by Age Group of Mother, First Nations (2000) and Canada (2000)



**Source:** A Statistical Profile on the Health of First Nations in Canada 2000, Health Canada, Statistics Canada, Canadian Vital Statistics, Birth Database, 2009

younger parenthood for First Nations in comparison to the non-Aboriginal population in Alberta. The differences are significant as young First Nations women (24 per cent) are three times more likely to be mothers between the ages of 15 and 24 than their non-Aboriginal (8 per cent) counterparts. For young First Nations men, 11 per cent are fathers compared to 3 per cent for the non-Aboriginal population.

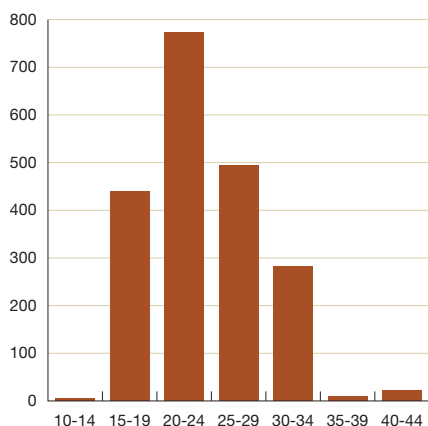
The young parenting age of First Nations suggests interrupted schooling and may partly explain the much lower high school completion rate identified in Figure 37. In some cases, the effect is compounded if a young woman has more than one child which further delays school completion.

Historically, Canadian women gave birth at a much younger age than today, however this age has been increasing progressively. Figure 34 shows that in 2000, 60.2 per cent of Canadian babies had a mother between the ages of 25 and 34. In 2000, 52 per cent of First Nations babies had a mother under the age of 25, and 19.6 per cent had a teenage mother.

<sup>29</sup> Resnick, M.D., Harris, L.J., Blum, W. "The Impact of Caring and Connectedness on Adolescent Health and Well-Being", *Journal Paediatric Child Health*, 1993, 29, Suppl. 1, S3-S9 and Amato, P.R., "The Impact of Family Formation Change on the Cognitive, Social, and Emotional Well-Being of the Next Generation", *The Future of Children*, vol. 15, no. 2, Fall 2005



> **Figure 35:** First Nations Live Births by Mother's Age in Alberta (2008)



Source: Health Canada, FNIH-Alberta Region, FNBD (First Nations Births Database); Alberta Government Services, Alberta Vital Statistics.

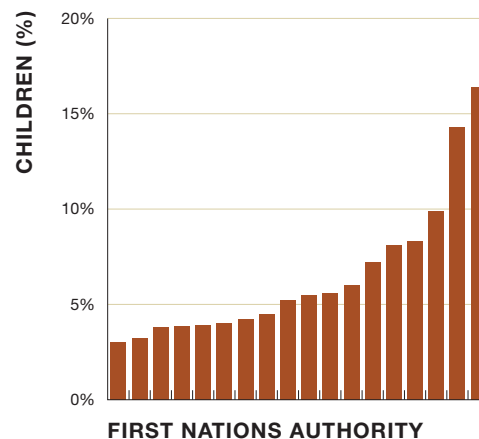
The impact of young parenthood on other socio-economic determinants such as education, income and employment is quite significant. In 2001, 80 per cent of First Nations teenage mothers lived in a family with a total income of less than \$15,000 per year, compared to 27 per cent of First Nations mothers aged 20 years or older<sup>30</sup>. A few Canadian studies demonstrate that teenaged mothers are less likely to complete high school or post-secondary studies, and more likely to live in a low-income household and to be single-parent<sup>31</sup>.

Figure 35 illustrates that in 2003, in Alberta, 22 per cent of First Nations babies were born to a teenage mother. Five of these babies had a mother between the ages of 10 and 14.

## Children in Care

Nationally, Indian and Northern Affairs Canada (INAC) states that since 1998/1999, approximately five to six per cent of First Nations children are formally in care<sup>32</sup>. Figure 36 provides the information for First Nations Children & Family Services Authority in Alberta. Annually, there

> **Figure 36:** Children in Child & Family Care by First Nation CFS Authority (2006-2007)



Source: Internal data, Indian and Northern Affairs Canada

is an average of 1,800 First Nations children in care in Alberta. Figure 36 shows that rates for the First Nations Children and Family Services Authorities in Alberta vary significantly from 3 to 16 per cent, for privacy issues the names of the First Nations authorities are withheld.

Aboriginal children represent only eight per cent of the children in Alberta, but 58 per cent of the children in care<sup>33</sup>. The number of children in care has been increasing steadily since 2001/2002.

The social factors affecting many First Nations are similar to those affecting the non-Aboriginal populations, but their degree differs. First Nations children are more likely to live in a single-parent household than their non-Aboriginal counterparts. They also have much younger parents than non-Aboriginal children and are overrepresented in the child welfare system.

<sup>30</sup> Guimond, E. and Robitaille, N. "When Teenage Girls Have Children: Trends and Consequences", Hope or Heartbreak: Aboriginal Youth and Canada's Future, Horizons, Policy Research Initiative, 2008.

<sup>31</sup> Bushnick, T., and Garner, R., "The Children of Older First-time Mothers in Canada: Their Health and Development", Children and Youth Research Paper Series, Statistics Canada, catalogue no. 89-599-M, no. 005, 2008 and Luong, M. "Life after Teenage Motherhood", Perspectives on Labour and Income, Statistics Canada, catalogue no. 75-001-X, vol. 9, no. 5, May 2008

<sup>32</sup> Basic Departmental Data 2004, Indian and Northern Affairs Canada, 2005.

<sup>33</sup> Children & Youth Services, Business Plan 2008-2011, Ministry of Children & Youth, 2008.

# Education

Among health determinants, education is usually recognized as one of the most important indicators. As many studies have demonstrated, better educated individuals tend to be healthier<sup>34</sup>. This section examines the highest level of education attained and literacy.

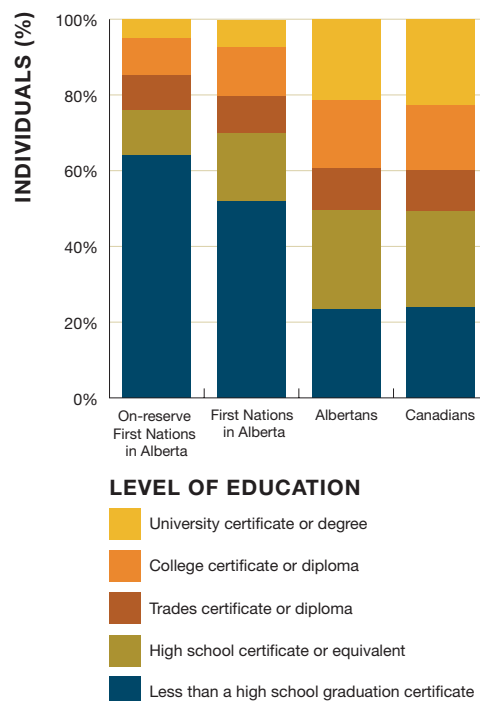
Figure 37 indicates that the levels of education are virtually identical for Albertans and Canadians. In both cases, approximately one in four individuals has not completed high school, a similar proportion has high school certificates as their highest level of education and approximately 40 per cent have a trade certificate or some level of post-secondary education.

First Nations in Alberta are two to three times more likely to have not completed high school than their Albertan or Canadian counterparts. Figure 37 shows that 51.9 per cent of First Nations (both on- and off-reserve) and 64.1 per cent of on-reserve First Nations have not completed high school. This has obvious repercussions on the proportion of individuals completing trades and other post-secondary education, the focus of attention in recent years.

Previous censuses have indicated a much smaller proportion of First Nations in post-secondary education and lower high school graduation rates as compared to the general population. To assist university and/or college graduation in First Nations, a number of initiatives have been established including the Aboriginal Health Human Resources Initiative (AHHRI), a Health Careers program as well as targeted scholarships through the National Aboriginal Achievement Awards Foundation.

In addition, Aboriginal Human Resources Development Agreement (AHRDA) funding has been allowed to flow to college and university students.

> **Figure 37:** Highest Level of Education Attained for First Nations, Albertans and Canadians 15 Years of Age and Over (2006)



Source: *Aboriginal Identity, Highest Certificate, Diploma or Degree, Major Field of Study – Classification of Instructional Programs, 2000, Area of Residence, Age Groups and Sex for the Population 15 Years and Over of Canada, Provinces and Territories, 2006 Census, Statistics Canada, 2008*

## Educational Attainment for Younger First Nations

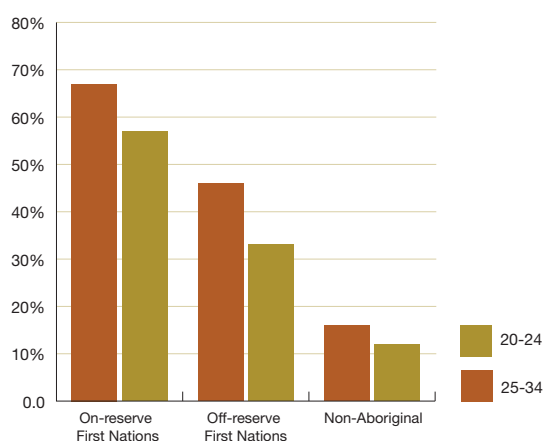
A gap in high school completion rate between First Nations and the rest of the population was anticipated, however, its magnitude was not. To better understand the issue, further work was undertaken.

<sup>34</sup> Raphael, D. (editor), "Social Determinants of Health: Canadian Perspectives", Canadian Scholars' Press Inc., 2004, A Statistical Profile on the Health of First Nations in Canada: Determinants of Health, 1999 to 2003, Health Canada, 2009

The key findings of this review are as follows:

- In a 2004 document, Indian and Northern Affairs Canada (INAC) indicated that it tracked graduation by simply establishing the ratio of students entering Grade 12 who graduate in the same year. That ratio had been hovering around 30 per cent between 1996/1997 and 2002/2003. While the proportion of graduates did not significantly change during those years, the data show a downward trend<sup>35</sup>.
- The Government of Alberta tracks high school graduation rates based on the Grade 10 cohort and looks at students completing high school within three to five years of entering Grade 10. In the 2005/2006 school year, the three-year rate was 70.4 per cent, the four-year rate was 76.2 per cent and the five-year rate was 78.6 per cent. The Government of Alberta estimates that the high school graduation rate for First Nation, Métis and Inuit students remains 15 per cent lower than those individuals who did not report Aboriginal ancestry on the census<sup>36</sup>.
- On its website, the Saskatchewan government indicates that “only 30 per cent of First Nations and Métis peoples between 15 to 24 years of age have completed high school”<sup>37</sup>.
- The Ministry of Education in British Columbia tracks educational performance of Aboriginal students enrolled in the public school system from grades 4 to 12. The report indicates lower performance for students as early as grade four showing that the performance on standardized tests of Aboriginal students was trailing non-Aboriginal students by roughly 10 percentage points in all three key areas (foundation skills, writing and numeracy)<sup>38</sup>.
- In an October 2008 report, the CD Howe Institute<sup>39</sup> stated that the gap in high school completion between Aboriginal and non-Aboriginal people is widening and urged “intense pursuit of better education outcomes”.

> **Figure 38:** Percentage of Young Adults in Alberta without a High School Diploma (2006)



Source: Zuchewich, N., “Aboriginal Children and Youth in Alberta”, Strength in Numbers Conference hosted by Statistics Canada based on data from 2006 Census

The 2006 Census provides further insight. Figure 38 shows a significant gap in high school completion between First Nations and non-Aboriginal people aged 20 to 34. By the age of 34, 57 per cent of First Nations on-reserve and a third of First Nations in Alberta have not completed high school compared to 12 per cent of the non-Aboriginal population, therefore, First Nations are three to five times more likely than their non-Aboriginal counterparts to have not completed high school. The upcoming sections on employment (Section 10, Labour Force Participation, Section 9, Income) and income (Section 10, Income) will demonstrate the impact of not completing high school. Earlier, Section 6, highlighted the relationships between health and income.

After reviewing mobility of students and high school completion rates of Aboriginal students, a recently released study from British Columbia<sup>40</sup> indicates that changing schools can have a significant impact on one’s

<sup>35</sup> Basic Departmental Data, 2004, Indian and Northern Affairs Canada

<sup>36</sup> Alberta High School Student Outcomes, Completion Rates, July 2007, Alberta Education website and Student Outcomes Measures – Based on the Grade 10 Cohort, Alberta Education, April 2006

<sup>37</sup> First Nations and Métis Education section, Ministry of Education, Government of Saskatchewan website

<sup>38</sup> Aboriginal Report – 2005/06 How Are we Doing? – Province – Public Schools Only, 2006, Knowledge Management Department, Ministry of Education, British Columbia

<sup>39</sup> Richards, J., Closing the Aboriginal / non-Aboriginal Education Gaps, CD Howe Institute, October 2008

<sup>40</sup> Aman, C. and Ungerleider, C. “Aboriginal Students and K-12 School Change in British Columbia”, Hope or Heartbreak: Aboriginal Youth and Canada’s Future, Horizons, Policy Research Initiative, 2008

ability to complete high school. Table 2 shows that high school completion rates significantly diminish with every school change in high school; 56.4 per cent of the Aboriginal students who did not change schools graduated compared to 11.3 per cent of the students who changed schools four times or more.

## Educational Attainment for First Nations: A National Perspective

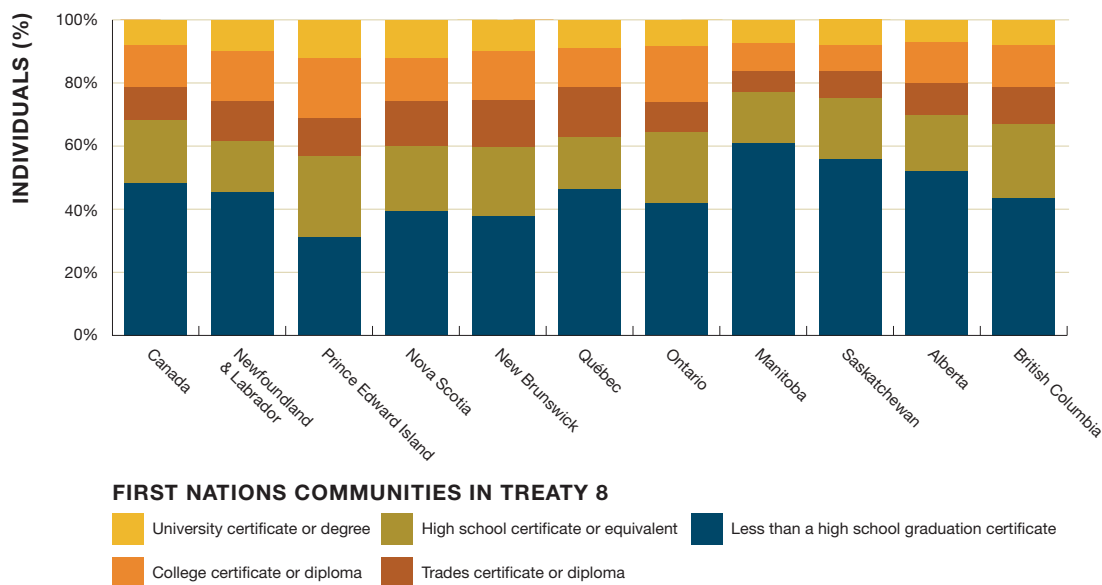
The issue of high school completion for First Nations is significant in Alberta, however, as Figure 39 illustrates, this issue is not limited to this province. Figure 39 shows almost half of First Nations in Canada (48.4 per cent) have not completed high school; this is much higher than for the Canadian population as 23.8 per cent has not completed high school (see Figure 35). Figure 37

> **Table 2:** High School Completion and Mobility of Students

Number of school changes (high school only)	% of 1998 Aboriginal cohort	6-year completion rate (Graduation June 2004)
No school changes	31.8%	56.4%
1 school change	36.6%	48.9%
2 school changes	19.8%	28.1%
3 school changes	9.7%	17.3%
4 school changes	2.6%	11.3%

**Source:** Aman, C. and Ungerleider, C. "Aboriginal Students and K-12 School Change in British Columbia", *Hope or Heartbreak: Aboriginal Youth and Canada's Future*, Horizons, Policy Research Initiative, 2008

> **Figure 39:** Highest Level of Education Attained for First Nations (2006)



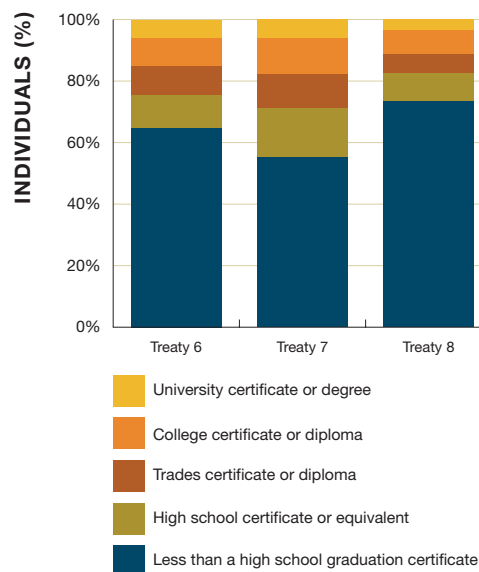
**Source:** *Aboriginal Identity, Age Groups, Area of Residence, Sex and Selected Demographic, Cultural, Labour Force, Educational and Income Characteristics, for the Total Population of Canada, Provinces and Territories, 2006 (Census)*, Statistics Canada

shows among Canadian provinces, the high school completion rate for First Nations is higher in the Maritimes and Ontario and lower in the Prairies, reaching a low of 39.1 per cent in Manitoba.

## Educational Attainment for First Nations Communities in Alberta

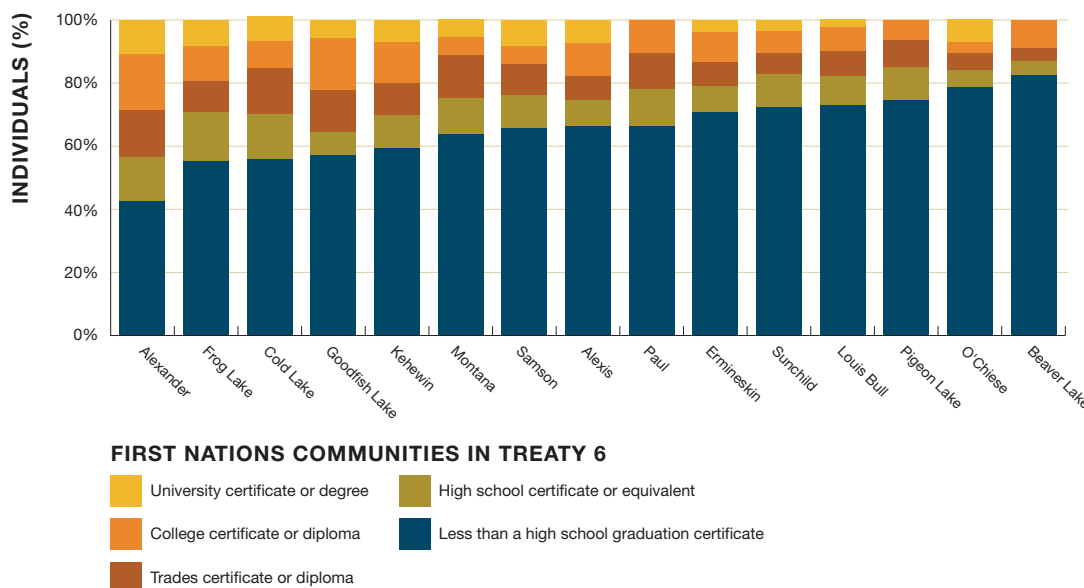
This section provides further information on educational attainment in First Nations communities in Alberta. Figure 40 shows differences among Treaty areas. Treaty 7 has higher educational attainment with greater proportions of First Nations who have completed high school, trade programs and post-secondary education among its on-reserve population. As Treaty 7 band members are much more likely to reside on-reserve than their counterparts in Treaty 6 and 8, it would be interesting to investigate further to see any possible correlations.

> **Figure 40:** Highest Level of Education Attained in Treaty Areas within Alberta (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008

> **Figure 41:** Highest Level of Education Attained for Treaty 6 Communities (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008

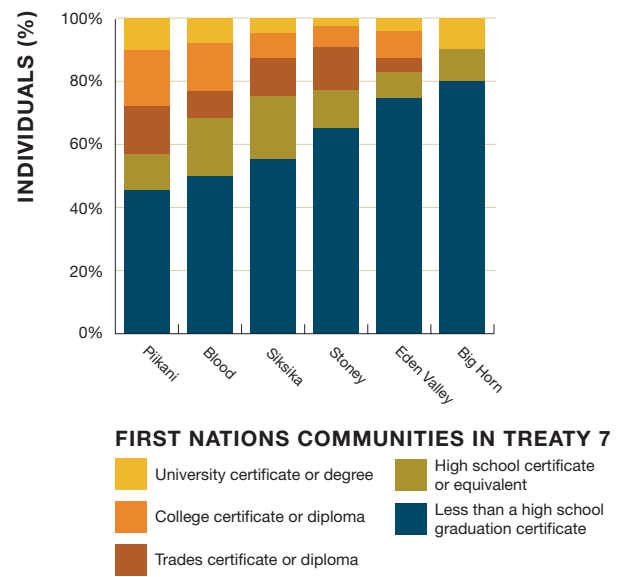


Significant differences exist in terms of educational attainment across communities. Figures 41 to 43 provide information for a number of communities that participated in the 2006 Census. Data for the smaller communities are not publicly available and are therefore not included.

Figure 41 indicates wide differences between many Treaty 6 communities. In Alberta, the best high school completion rate can be found in Alexander, where 57.4 per cent of the population has obtained at least a high school diploma while the remaining 42.6 per cent of the community's population has not completed high school. This varies considerably from Beaver Lake where 82.6 per cent of the population has not completed high school.

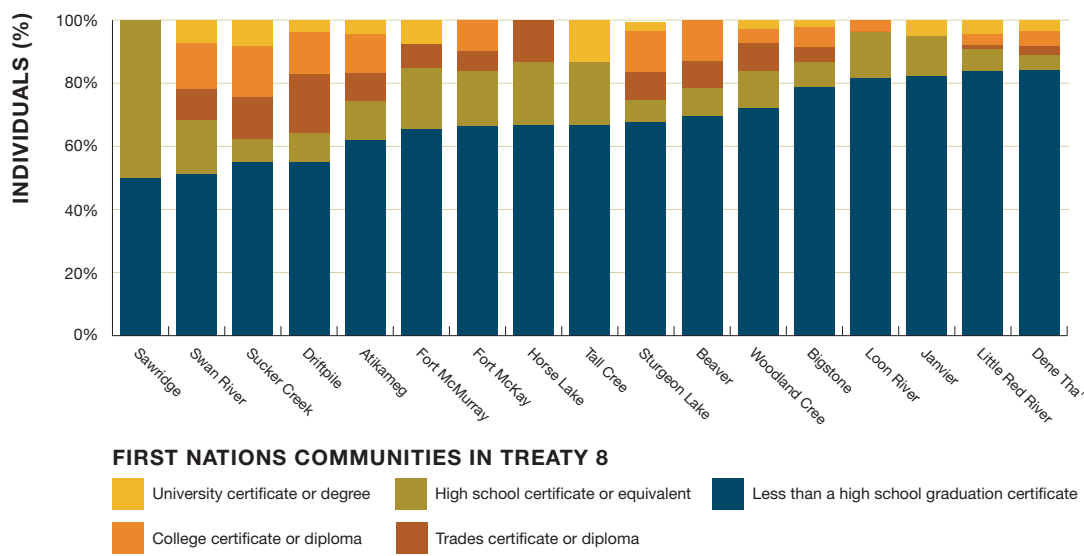
Sections 9 and 10 in this report will show that members of Alexander also have relatively high labour force participation and income in comparison with members in other First Nations communities.

> **Figure 42:** Highest Level of Education Attained for Treaty 7 Communities (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008

> **Figure 43:** Highest Level of Education Attained for Treaty 8 Communities (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008<sup>41</sup>

<sup>41</sup> Sawridge shows better socio-economic results than many First Nations communities in Alberta. The results have been made publicly available despite the fact that it is a relatively small community. Its results cannot be readily compared with other First Nations communities, as most of the communities of a similar size as well as some larger communities have their information withheld from the public domain. The results are believed to be accurate, however, the small population size could result in wide fluctuations.

Figure 42 shows that wide differences also exist within Treaty 7 communities. High school completion rates vary significantly among the six communities of Treaty 7 who participated in the 2006 Census, ranging from 20 per cent in Big Horn to 54.5 per cent in Piikani. University education remains higher in Treaty 7 than in most First Nations communities in Alberta even when the high school completion rates are quite low. For example, in Big Horn, where 80 per cent of the population has not completed high school, the proportion with university education is similar to the communities with better educational outcomes within Treaty 7, for example, Piikani and Blood communities.

Differences in high school graduation rates within Treaty 8 are quite significant. They range from roughly half of the population in Swan River to 84.1 per cent in Dene Tha' who have not completed high school. Many communities within the Lesser Slave Lake Indian Regional Council have fairly similar results. Data for a number of small communities within Treaty 8 are withheld from the public domain.

## Literacy

The International Adult Literacy and Skills Survey (IALSS) is one of the most recognized international literacy surveys. The 2003 version of the survey was conducted in seven countries (Canada, Germany, Netherlands, Poland, Sweden, Switzerland and the United States). In Canada, the 2003 survey also identified a number of target populations including urban Aboriginal peoples in Manitoba and Saskatchewan.

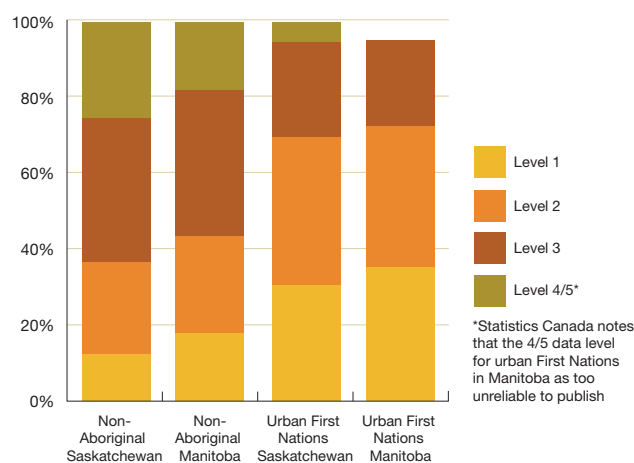
Comparable data are not available for First Nations in Alberta, however, as the educational attainment data for First Nations in Alberta are quite similar to those of First Nations in Saskatchewan (see Figure 39), the results would probably not vary significantly from the Saskatchewan results.

Data show that First Nations have much lower educational attainment than their counterparts in Alberta and Canada. Literacy levels are also lower among First Nations.

The International Adult Literacy and Skills Survey uses a five-point scale. At Level 1, an individual would have very limited abilities to locate, understand and use information. For this survey, the benchmark for the minimum level of literacy proficiency that is needed for an individual to successfully cope in today's complex knowledge and information-based society is defined as Level 3.

Figure 44 indicates that 70 per cent of urban First Nations in Manitoba and Saskatchewan did not achieve Level 3, compared to roughly 40 per cent of the non-Aboriginal population in the two Prairie provinces. Figure 44 also shows that a much higher proportion of First Nations than non-Aboriginal individuals are at Level 1.

> **Figure 44: Prose Literacy Distribution (2003)**



**Source:** *Literacy Profile of Off-Reserve First Nations and Métis People Living in Urban Manitoba and Saskatchewan: Results from the International Adult Literacy Survey 2003, Statistics Canada 2008*

# Income

This section explores the relationship between income, educational attainment and family composition. The most significant component of income is earned through employment; additional information on employment is provided in Section 10, Labour Force Activity.

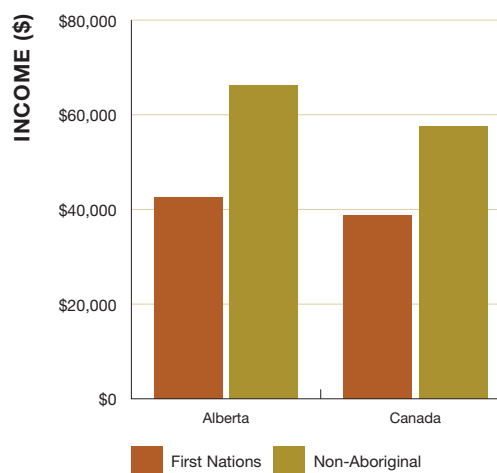
In recognition of income's significance on the health and well-being of a population, as well as its stabilizing role for the economy, governments have introduced a number of policies and programs that provide financial support to those in need. These programs represent an important component of Canada's social safety net and include programs such as employment insurance, social assistance, old age pension, national child benefit, Goods and Services Tax rebates and many others.

Median after-tax income is commonly used for comparisons as it takes into account the taxes paid by an individual as well as the financial support received from government programs. The median after-tax income is the point where exactly half of the population would have a higher income and half the population would have a lower income. The median is acknowledged as a more accurate indicator than the average, which can be skewed more easily by higher and lower income levels.

Figure 45 demonstrates the significant gap in median after-tax family income in First Nations households in comparison with other households in Alberta and Canada.

Figure 45 also shows that the median after-tax income of Albertans is higher than for other Canadians. There is an important income gap between First Nations and non-First Nations individuals. As the median after-tax income for First Nations families includes both those living on- and off-reserve, it is markedly higher than the median after-tax family income identified in a number of First Nations communities, as it will be demonstrated in Figures 46 to 48.

> **Figure 45:** Median After-Tax Family Income (2006)



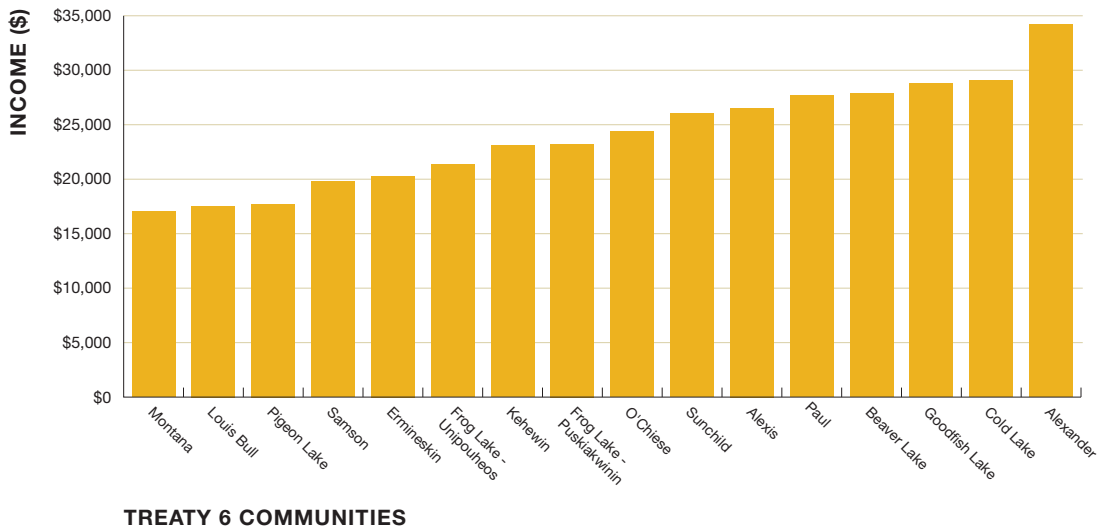
Source: Custom tables, 2006 Census, Statistics Canada

While Section 8, Education, demonstrates important differences in educational attainment across First Nations communities, significant differences also exist for median after-tax family income. Figures 46 to 48 provide this information by Treaty area.

In examining the median after-tax family income for Albertans in a number of communities throughout Alberta, it appears that geography plays a key role. The median after-tax family income for non-First Nations communities in most of southern and central Alberta is in the \$50,000 to \$60,000 range. It is much higher in a number of communities in northern Alberta, reaching \$68,392 in Slave Lake, \$72,270 in High Level and \$97,483 in the county of Wood Buffalo.

Figure 46 shows the range of the median after-tax family income for the Treaty 6 communities. The superior high school graduation rate of Alexander is associated with the highest median after-tax family income among Treaty 6 communities at \$34,176, which is twice as high as the lowest median after-tax income in Treaty 6, \$17,056 in Montana.

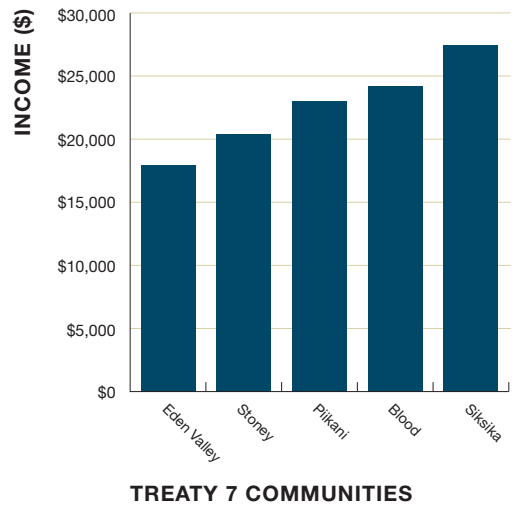
> **Figure 46:** Median After-Tax Family Income for Treaty 6 (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008 and custom tables, 2006 Census, Statistics Canada

Figure 47 charts the median after-tax income for some of the First Nations communities in Treaty 7. Although differences exist among the communities, they are not as significant as those within Treaty 6 or Treaty 8. The median after-tax family income in Treaty 7 ranges from \$17,920 in Eden Valley to \$27,456 in Siksika.

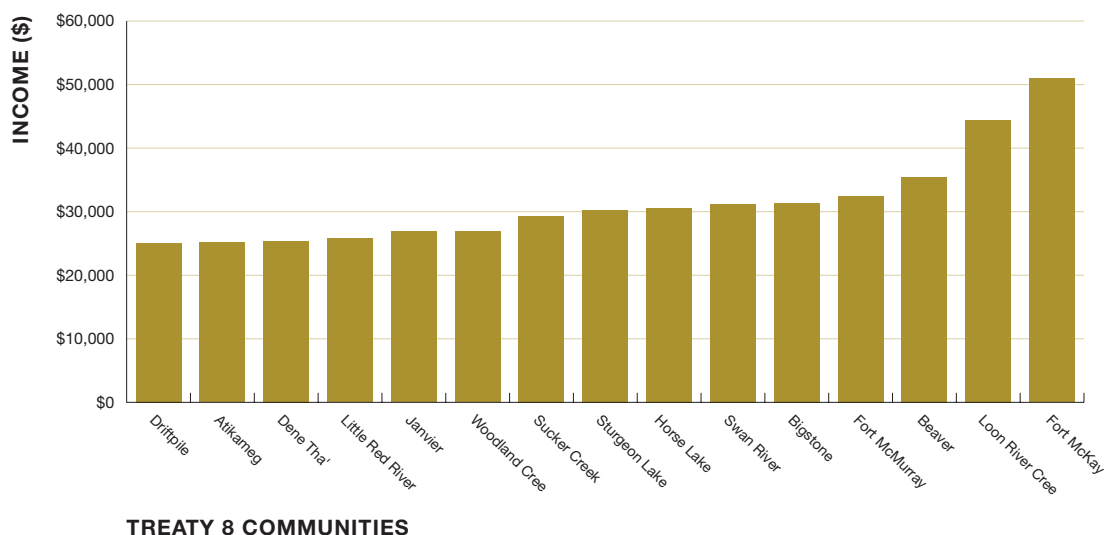
> **Figure 47:** Median After-Tax Family Income for Treaty 7 (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008

Figure 48 shows the median after-tax income for Treaty 8 communities which starts at a higher level for communities in Treaty 8 (\$22,528) than in communities in Treaty 6 (\$17,056) and 7 (\$17,920). The highest median after-tax family income for First Nations communities in Alberta is in Treaty 8, Fort McKay, at \$50,944, which is one of the First Nations communities located in proximity to Alberta's oil sands. Furthermore, only the communities of Loon River Cree and Fort McKay have median after-tax family income that is higher than the provincial median after-tax family income for First Nations in Alberta (\$42,485).

> **Figure 48:** Median After-Tax Family Income for Treaty 8 (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008 and custom tables, 2006 Census, Statistics Canada

## Income and Education

Figure 49 indicates that education pays as education attainment has a significant impact on the median personal income of First Nations in Alberta. The median personal income quickly rises with educational attainment.

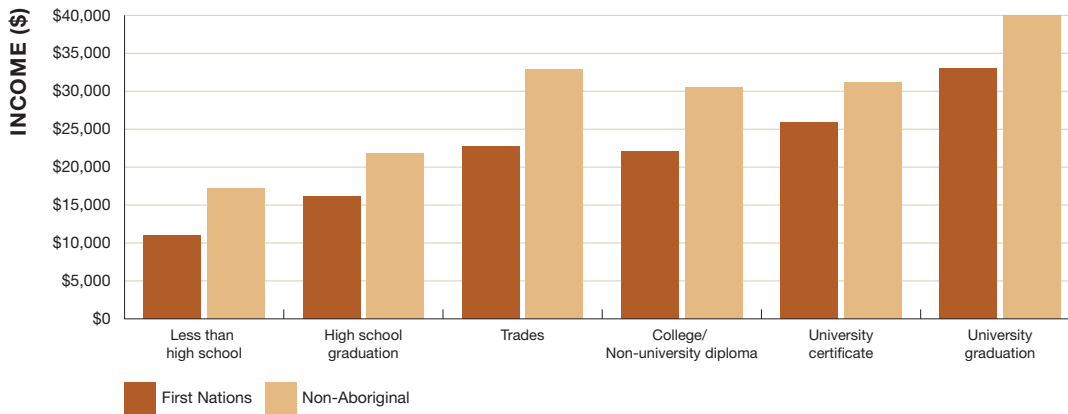
Figure 49 highlights a few key points:

- High school completion has an impact on one's income—the median income increases by 50 per cent for those who have completed high school in comparison with those who have not.
- Over a lifetime of earning, the difference in income between those who have not completed high school and those who have graduated university could exceed \$750,000 for First Nations.
- Differences in incomes between First Nations and non-Aboriginal individuals. Further work is required in order to better understand those differences, but it is suspected that in some cases, (e.g., trades and post-secondary education) it could possibly be linked to area of specialization and/or geography.





> **Figure 49:** Median Personal Income by Highest Level of Education Completed for, Alberta (2006)



Source: Custom Tables, 2006 Census, Statistics Canada

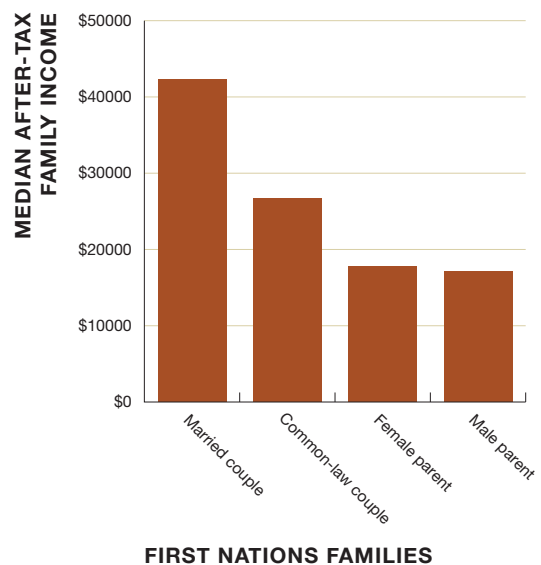
## Family Status and Income

Section 7, Social Factors provides information on family composition and indicates that over half of First Nations children live in a two-parent household and over a third live in a single-parent household (See Figure 29, Page 28).

Family composition has a significant impact on the median after-tax income of families. Figure 50 shows that, as expected, two-parent families fare better financially than single-parent families, however, it also shows significant differences between married couples and common-law couples.

The financial advantage of a married relationship in comparison with a common-law relationship is consistent across a number of industrialized nations. Figure 50 also illustrates that for First Nations in Alberta, the annual median after-tax income for married couples

> **Figure 50:** Median After-Tax Income for First Nations Families in Alberta (2006)



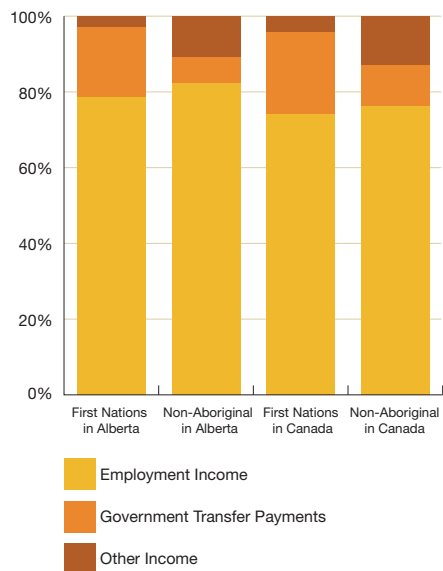
Source: Custom tables, 2006 Census, Statistics Canada

is 63 per cent higher than for common-law couples. For First Nations in Alberta, the median after-tax income for families led by a single parent is almost identical regardless of gender. In some First Nations communities, data indicate that single mothers fare better financially than single fathers. This is rather unusual as single fathers normally tend to fare better.

### Composition of Income

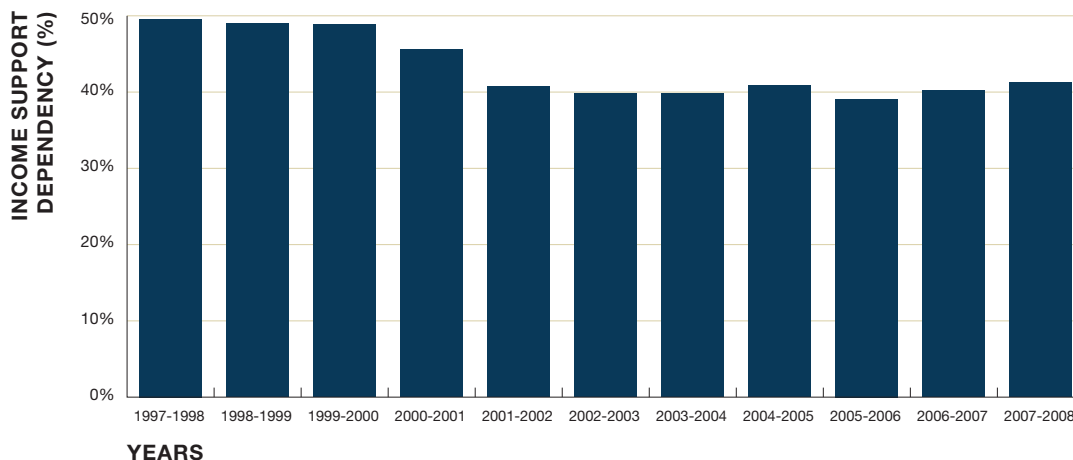
Earlier in this section, the role of government programs in after-tax household income was described. Figure 51 illustrates the composition of income for First Nations and non-Aboriginal populations showing that government transfers account for a higher portion of after-tax income for Canadians (10.9 per cent) than Albertans (seven per cent). It also shows that government transfers account for a larger portion of First Nations income, 18.6 per cent in Alberta and 21.8 per cent in Canada when compared with the non-Aboriginal populations.

> **Figure 51:** Composition of After-Tax Income (2006)



Source: Custom tables, 2006 Census, Statistics Canada

> **Figure 52:** Income Support Dependency First Nations in Alberta (1997-2008)



Source: Internal data, Indian and Northern Affairs Canada, 2008

One component of government transfers to individuals is the income support provided by Indian and Northern Affairs Canada (INAC) to First Nations living on-reserve. Figure 52 shows that the percentage of First Nations relying upon income support decreased in the late 1990s but has remained fairly stable since the beginning of this century, hovering around the 40 per cent mark.

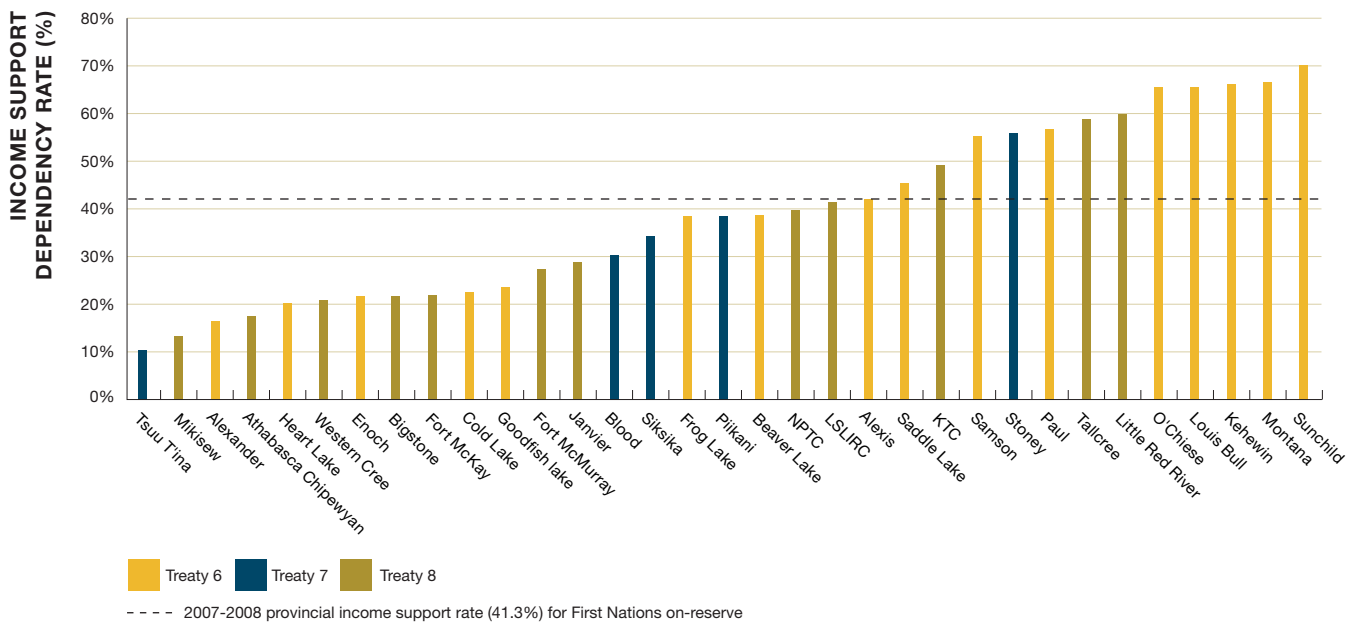
Income support dependency rates fluctuate widely within the province. Figure 53 provides the varying levels of income support dependency rates in each of the Treaty areas. The income support dependency rate is highly cyclical in many communities and when reviewing data for each community over a ten-year period many of them experienced significant variations.

Figure 53 is colour-coded by Treaty area and shows that in Alberta the highest rate of income support dependency can be found in five communities within Treaty 6, while some of the more remote communities

within Treaty 8 have some of the lowest income support dependency rates on-reserve. This demonstrates that remoteness may not explain economic disparities experienced by First Nations communities in Alberta. In earlier sections, information was provided linking health and income, however, it does leave unanswered many questions related to health and well-being of communities and the impact of higher income support dependency rates.

Income levels are lower for First Nations than for other Albertans and Canadians. The disparity may be partially explained by lower educational attainment and literacy in the First Nations population.

> **Figure 53:** Income Support Dependency Rate for First Nations Communities in Alberta (2007-2008)



Source: Internal data, Indian and Northern Affairs Canada, 2008

# Labour Force Activity

While the previous section provides information on income as a health determinant, this section seeks to better understand one of the key components of income–employment. As such, this section considers the following indicators:

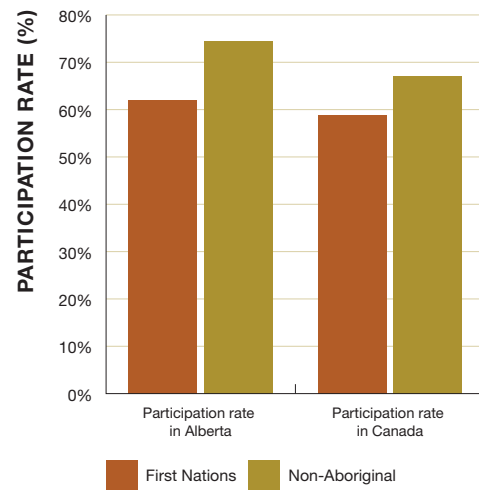
- **Labour force participation rate:** The proportion of people between the ages of 15 and 64 who are employed, are expecting to begin work in the next four weeks, are on temporary lay-off and expected to return to their job, or are actively looking for work as a percentage of the population in that age group.
- **Unemployment rate:** The proportion of people between the ages of 15 and 64 who are not working and are expecting to begin work in the next four weeks, are on temporary lay-off and expected to return to their job, or who are actively looking for work as a percentage of the labour force.
- **Employment rate:** The proportion of people between the ages of 15 and 64 who are currently working as a percentage of the total population in this age group.

## Participation Rate

In May 2006, the Alberta economy was extremely strong as indicated by most formal indicators (e.g., higher participation and employment rates, lower unemployment rate). Informal signs of a “hot” economy were evident as job posters and billboards were highly visible, signing bonuses were marketed for a variety of positions, even for some lower-paying retail positions, and most companies were offering wages well above the minimum wage.

Reflecting the dynamic Alberta economy of 2006, Figure 54 clearly demonstrates higher participation rates for Albertans than for Canadians as the non-Aboriginal participation rate in Alberta was at 74.4 per cent, much higher than the Canadian non-Aboriginal rate at 67.1 per cent. The participation rate for First Nations was better in Alberta (62 per cent) than in the rest of Canada (58.9 per cent), but a significant gap exists between the First Nations and non-Aboriginal rates.

> **Figure 54:** Participation Rate in Alberta and Canada  
Population 15-64 years of age (2006)

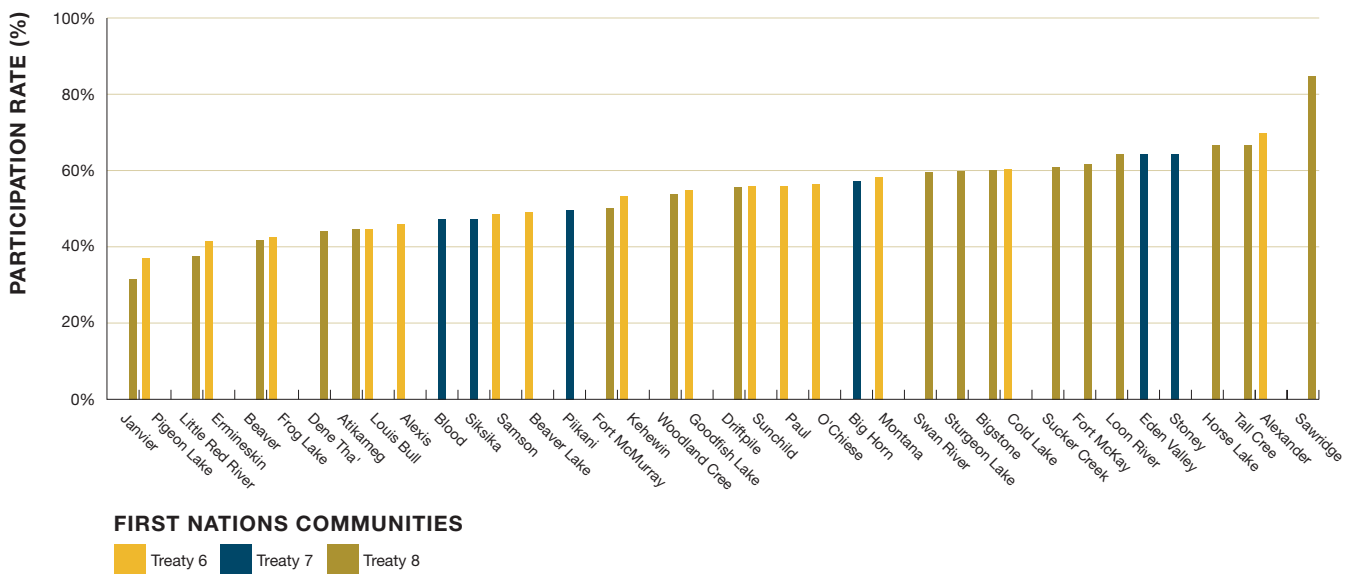


Source: Custom tables, 2006 Census, Statistics Canada

It is important to note that participation rate is never expected to reach 100 per cent as a number of people in the 15 to 64 age group would choose not to be active in the labour force (opting for school attendance, retirement or stay-at-home parenthood, etc.).

Usually, a booming economy will lead to a higher participation rate, as people believe they have greater opportunity of finding employment. In some cases, it may temporarily increase the unemployment rate, but normally a high participation rate is associated with high employment rate and low unemployment rate. The information provided for the First Nations communities' participation, employment and unemployment rates is not as straightforward. In fact, some of the communities with the highest participation rates also have some of the highest unemployment rates (e.g., Swan River and Eden Valley).

> **Figure 55:** Participation Rate for First Nations Communities in Alberta Population 15-64 Years of Age (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008

Overall, the participation rate for First Nations in Alberta both on- and off-reserve is at 62 per cent, however, significant variation exists among communities. Figure 55 has been colour-coded by Treaty area and shows that the participation rate ranges from 31.6 per cent in Janvier to 69.7 per cent in Alexander.

As with some of the data presented earlier, variations across communities cannot be simply explained by geography such as proximity to large urban centres (mainly Edmonton or Calgary) or areas rich in natural resources which drove the last economic boom such as Fort McMurray.

## Unemployment Rate

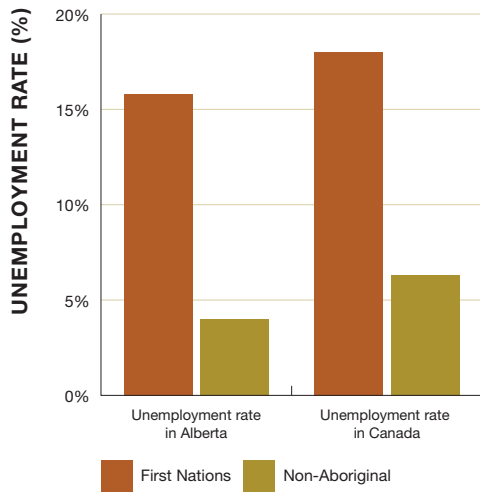
While there is a gap in terms of labour force participation between First Nations and non-Aboriginal people, a more significant gap exists when examining

unemployment rates. The unemployment rate represents the proportion of people between the ages of 15 and 64 who are actively looking for work or have been laid-off but expect to be called back to work as a percentage of the labour force. Figure 56 compares the unemployment rates of First Nations and non-Aboriginals living in Alberta and Canada, and highlights two key findings:

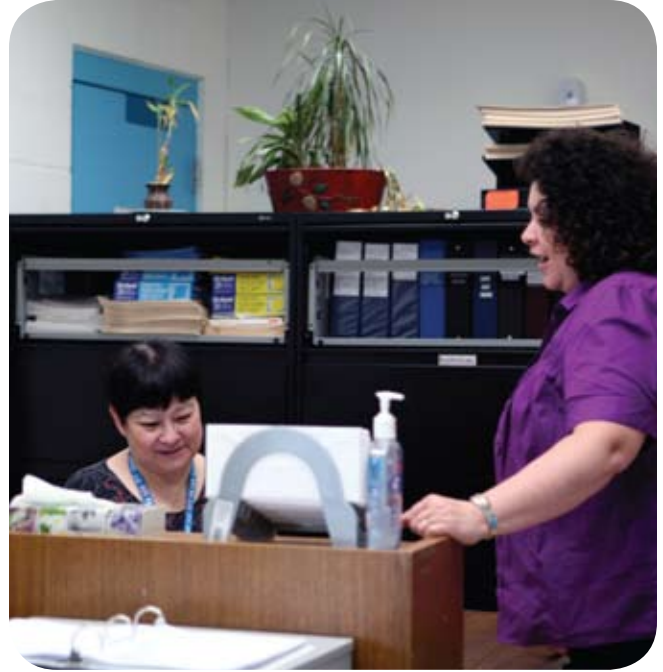
- First Nations unemployment rate is significantly higher than the non-Aboriginal population
- Unemployment rates are lower in Alberta than in Canada.

As with the participation rate, unemployment rates also vary between communities. Figure 57 shows that they range from around 15 per cent in three communities within Tribal Chiefs Ventures (Goodfish Lake, Frog Lake and Cold Lake) to 51.7 per cent in Eden Valley.

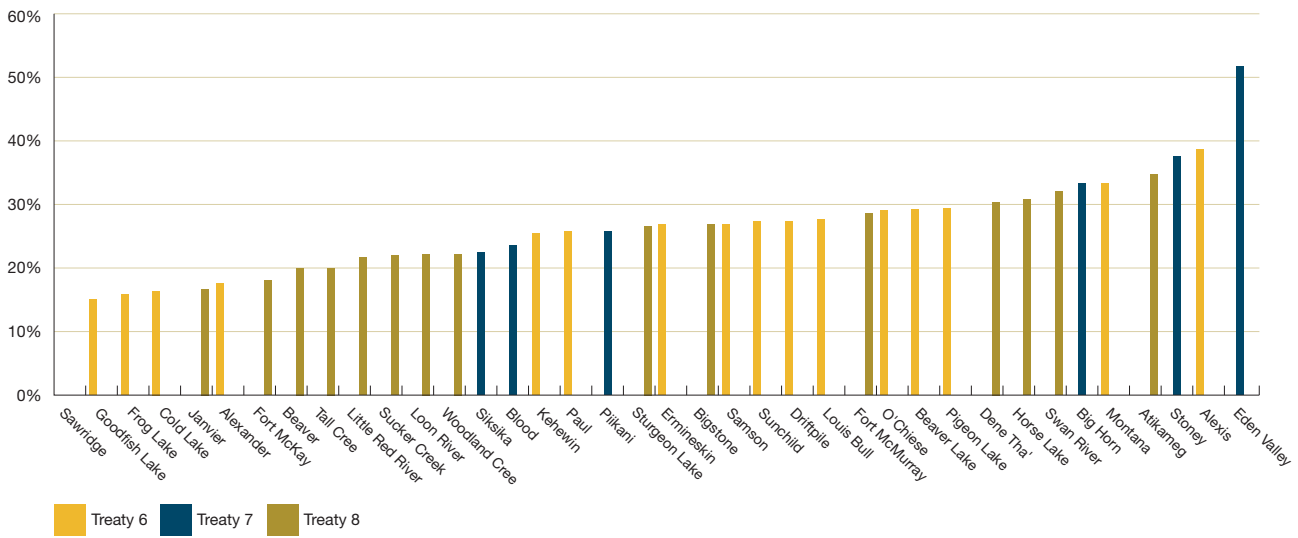
> **Figure 56:** Unemployment Rate in Alberta and Canada Population 15-64 years of age (2006)



Source: Custom tables, 2006 Census, Statistics Canada



> **Figure 57:** Unemployment Rate in First Nations Communities in Alberta (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008



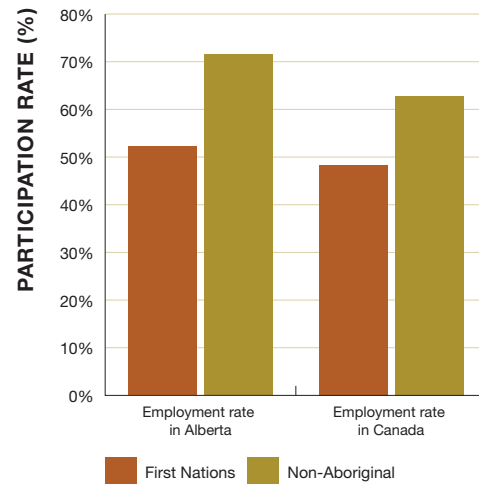
## Employment Rate

Among labour force activity data, the employment rate is probably one of the more concrete indicators as it measures the proportion of people between the ages of 15 and 64 who are currently working. Figure 58 shows the employment rate for First Nations and non-Aboriginal individuals in Alberta and Canada. As with previous graphs, this graph indicates:

- Higher employment rates exist in Alberta compared to Canada for both First Nations and non-Aboriginal populations.
- A gap exists in the employment rate between First Nations and non-Aboriginal individuals. The gap in Alberta is quite significant as 52.2 per cent of First Nations in Alberta were working compared to 71.5 per cent of non-Aboriginal Albertans.

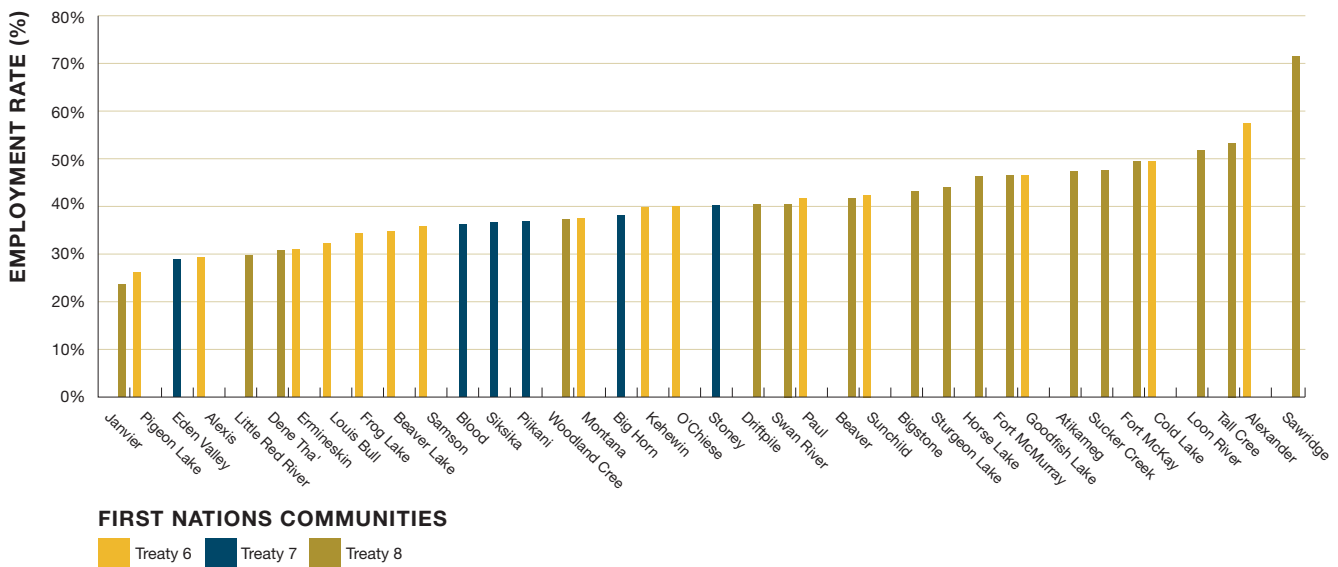
Figure 59 demonstrates that the employment rate between First Nations communities in Alberta varies considerably. The lowest employment rate can be found in Janvier

> **Figure 58:** Employment Rate for First Nations and non-Aboriginal People in Alberta and Canada Population 15-64 years of age (2006)



Source: Custom tables, 2006 Census, Statistics Canada

> **Figure 59:** Employment Rate for First Nations Communities in Alberta Population 15-64 Years of Age (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008

where 23.7 per cent of the population between the ages of 15 and 64 was working, compared to Sawridge, which had the highest employment rate at 71.4 per cent. The second-highest employment rate among First Nations communities can be found in Alexander where the employment rate reached 57.4 per cent. Figure 39 (see Page 34) shows that the First Nations community with the highest high school completion rate in Alberta was also Alexander.

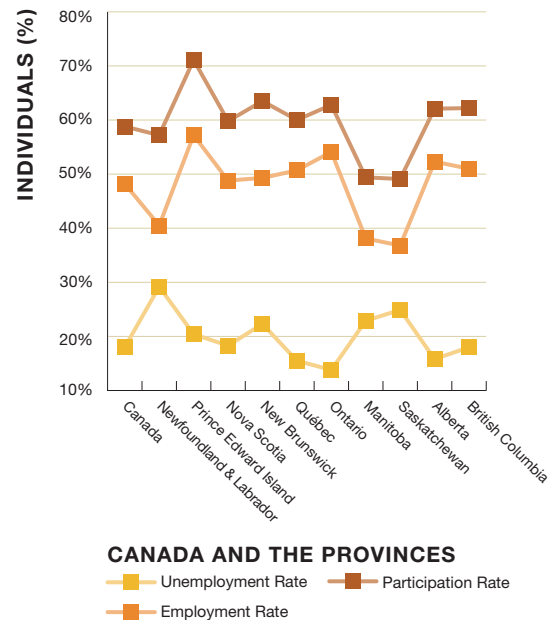
## Labour Force Activity for First Nations: A National Perspective

The previous sections examined the labour force activity for First Nations in Alberta comparing the rates between First Nations and non-Aboriginal populations as well as between First Nations communities. Figure 60 examines the data from a national perspective for First Nations, providing data for Canada and all the provinces. In comparing educational attainment among provinces, First Nations in Alberta fared rather poorly in comparison with many of their counterparts. Figure 60 shows that when it comes to labour force activity, First Nations in Alberta are among the leaders in the country. This may partly be explained by the robust Alberta economy in 2006.

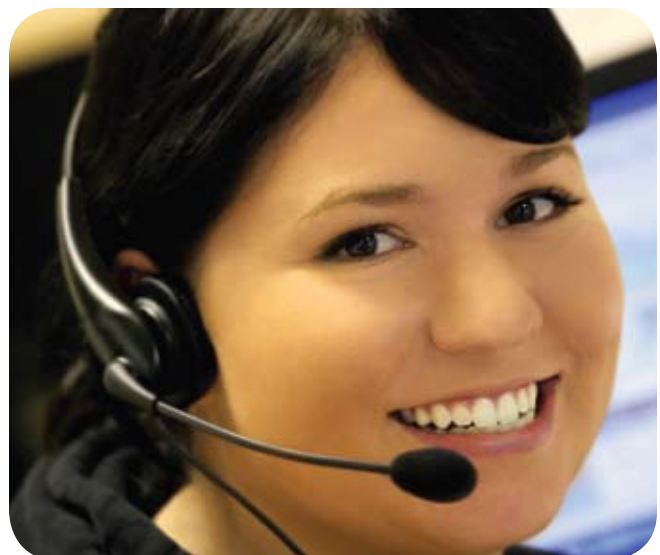
Overall labour force activity results for First Nations in Alberta are better than for other First Nations in Canada but lower than their non-Aboriginal counterparts.

Education is a great equalizer, as the employment rate of First Nations and non-Aboriginal individuals are quite similar for anyone who has completed high school or post-secondary education.

> **Figure 60:** Labour Force Activity for First Nations (2006)



**Source:** *Aboriginal Identity, Age Groups, Area of Residence, Sex and Selected Demographic, Cultural, Labour Force, Educational and Income Characteristics, for the Total Population of Canada, Provinces and Territories, 2006 (Census), Statistics Canada*



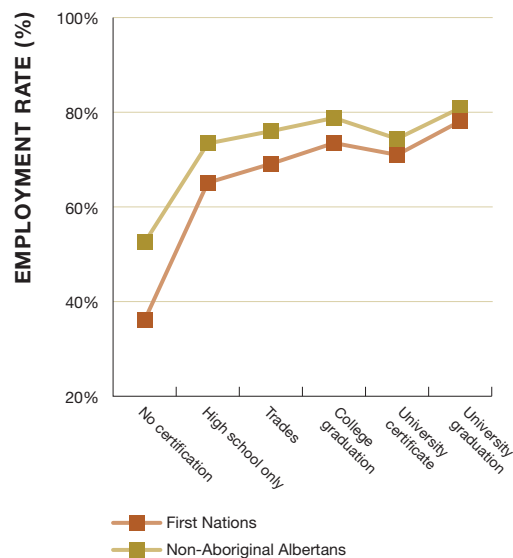
## Employment and Education

Figure 61 demonstrates the close relationships between employment rate and education:

- The employment rate rises significantly with higher levels of education.
- With an increasing level of education, differences in employment rate diminish between First Nations and non-Aboriginal peoples.
- For individuals with post-secondary education, the employment rates are virtually identical.

Figure 61 also clearly shows the importance of completing high school. In Alberta, the employment rate for First Nations in 2006 was 52.2 per cent of all individuals between the ages of 15 and 64. Figure 61 shows that it is much higher for First Nations who have completed high school or better (65.1 per cent), reaching 78.1 per cent for First Nations who graduated from university. The employment rate for First Nations who have not completed high school is much lower at 36.1 per cent.

> **Figure 61:** Employment Rate for 15-64 Years Old Population by Educational Certification and Identity, Alberta (2006)



Source: Custom tables, 2006 Census, Statistics Canada



# Housing

Housing is a major contributor to health status. Poor housing conditions are associated with a number of health conditions, including respiratory illness, communicable diseases, mental health problems and injuries.<sup>42</sup> This section provides information on two key indicators—crowded housing and dwellings requiring major repairs.

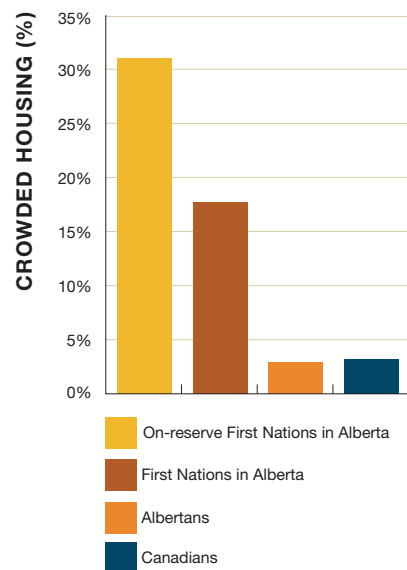
Throughout this document, the use of different data sources has usually resulted in creating a more complete picture as each source of data tends to complement the other, however, this is not the case with housing. Although, different data sources were identified, the results were not comparable and often contradictory. Therefore, as the data from the 2006 Census provide information for most communities, this document simply reports these findings.

## Crowded Housing

Statistics Canada defines crowded housing as the proportion of persons living in homes with more than one person per room<sup>43</sup>. The number of rooms is calculated by counting the kitchen, bedrooms, living room and finished basement rooms but excluding bathrooms, halls, laundry room and attached sheds. Therefore, a typical three-bedroom house with a living room and a kitchen would be deemed able to accommodate five individuals and the same dwelling would be defined as crowded if six or more individuals were residing in it.

Figure 62 demonstrates the much higher proportion of First Nations living in crowded homes in comparison to their non-Aboriginal counterparts. While less than five per cent of the population in Alberta and Canada lives in a crowded house, 17.7 per cent of First Nations in Alberta do and the proportion is much higher for First Nations living on-reserve—almost one in three individuals.

> **Figure 62:** Dwellings with more than 1 Person per Room in Alberta and Canada (2006)



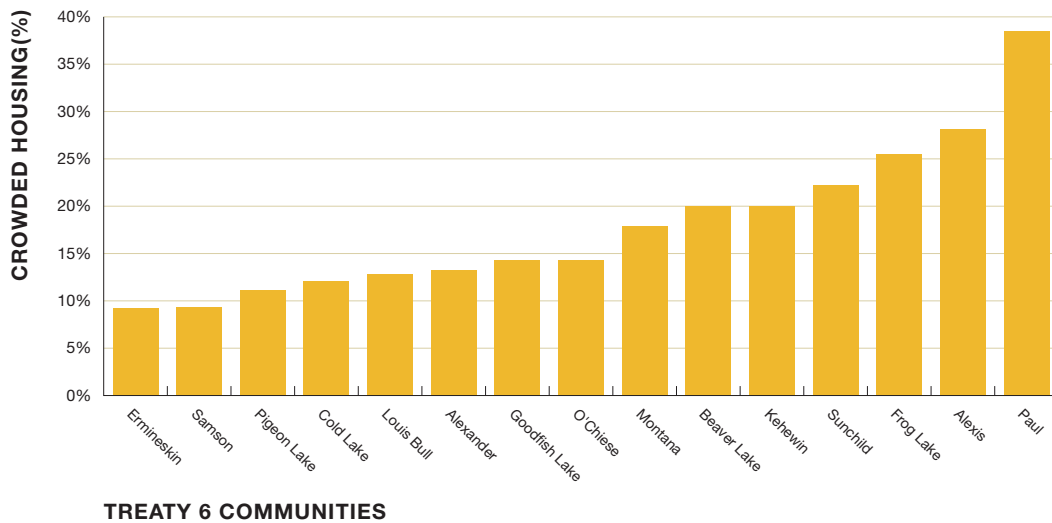
**Source:** Statistics Canada. 2008. *Aboriginal Identity, Condition of Dwelling, Number of Persons per Room, Age Groups, Sex and Area of Residence for the Population in private Households of Canada, Provinces and Territories, 2006 Census – 20% Sample Data (table). Topic-based tabulation. 2006 Census of Population. Statistics Canada catalogue no. 97-558-XCB2006022. Ottawa.*

Figures 63 to 65 provide information for First Nations communities in Alberta within each Treaty area. The graphs show that issues around crowded housing vary considerably by communities. Figure 60 provides the proportion of dwellings for each of the First Nations communities in Treaty 6 that participated in the 2006 Census. In Treaty 6, crowded housing varies from just under 10 per cent of the dwellings in Ermineskin and Samson to 38.5 per cent of the houses in Paul First Nation.

<sup>42</sup> FNIHB Living Environment Working Group, Office of Community Medicine, What Does it take to Build and Maintain Healthy Homes on Reserve?, Health Canada, 2006.

<sup>43</sup> Aboriginal peoples in Canada in 2006: Inuit, Métis and First Nations, catalogue no. 97-558-XIE, 2006 Census, Statistics Canada, 2008

> **Figure 63:** Dwellings with more than 1 Person per Room in Treaty 6 First Nations Communities (2006)

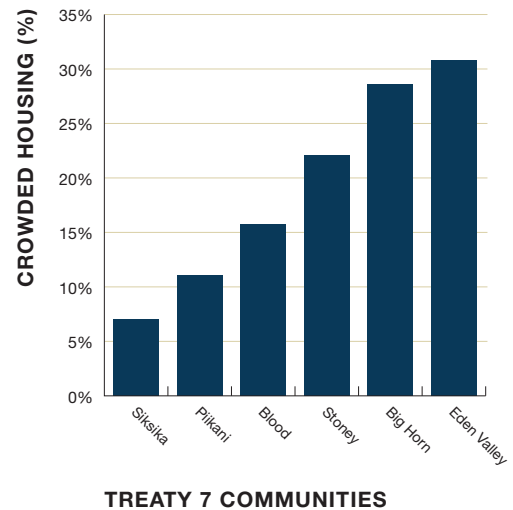


Source: Community profiles, 2006 Census, Statistics Canada website, 2008 and custom tables, 2006 Census, Statistics Canada

Figure 64 shows the results for the Treaty 7 First Nations communities. As with the Treaty 6 communities, the issues of crowded housing are felt quite differently across communities ranging from 7 per cent in Siksika to 30.8 per cent in Eden Valley.

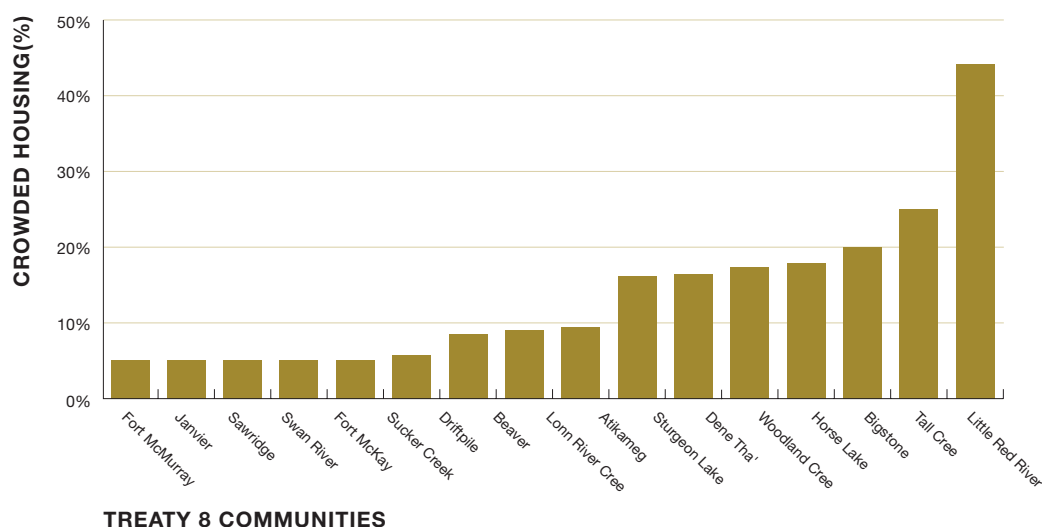
Figure 65 provides the information for Treaty 8 communities. As with the other Treaty areas, the issues of crowded housing vary significantly across communities ranging from four communities where crowded housing is not an issue to Little Red River where 44.2 per cent of the dwellings are crowded.

> **Figure 64:** Dwellings with more than 1 Person per Room in Treaty 7 First Nations Communities (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008

> **Figure 65:** Dwellings with more than 1 Person per Room in Treaty 8 First Nations Communities (2006)



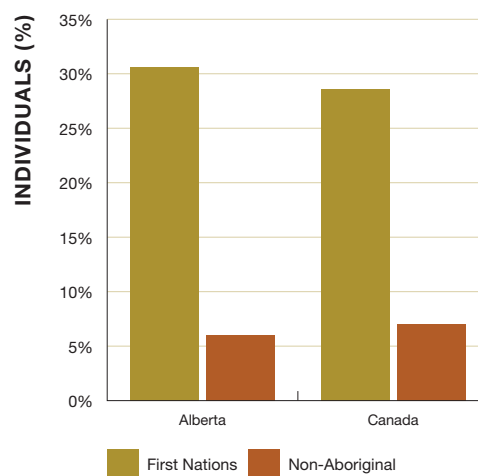
Source: Community profiles, 2006 Census, Statistics Canada website, 2008 and custom tables, 2006 Census, Statistics Canada

## Dwellings Requiring Major Repairs

The second key housing indicator is “dwellings requiring major repairs”<sup>44</sup>, which is defined as repairs of defective plumbing or electrical wiring and/or structural repairs to walls, floors or ceilings.

Figure 66 shows the percentage of people living in houses requiring major repairs. The graph shows significant differences between First Nations and non-Aboriginal people in both Alberta and Canada. Just over one in 20 non-Aboriginal individuals in Alberta (six per cent) and Canada (seven per cent) live in houses requiring major repairs compared to well-over one in four for First Nations in Alberta (30.6 per cent) and in Canada (28.6 per cent).

> **Figure 66:** Percentage of People Living in Houses Requiring Major Repairs (2006)

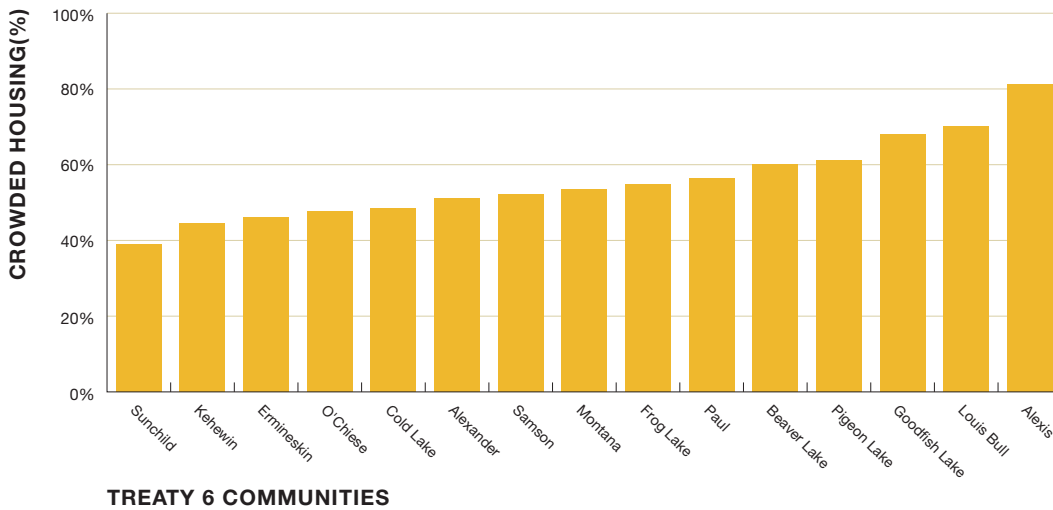


Source: Statistics Canada. 2008. Aboriginal Identity, Condition of Dwelling, Number of Persons per Room, Age Groups, Sex and Area of Residence for the Population in private Households of Canada, Provinces and Territories, 2006 Census – 20% Sample Data (table). Topic-based tabulation. 2006 Census of Population. Statistics Canada catalogue no. 97-558-XCB2006022. Ottawa.

<sup>44</sup> Aboriginal peoples in Canada in 2006: Inuit, Métis and First Nations, catalogue no. 97-558-XIE, 2006 Census, Statistics Canada, 2008



> **Figure 67:** Dwellings Requiring Major Repairs in Treaty 6 First Nations Communities (2006)



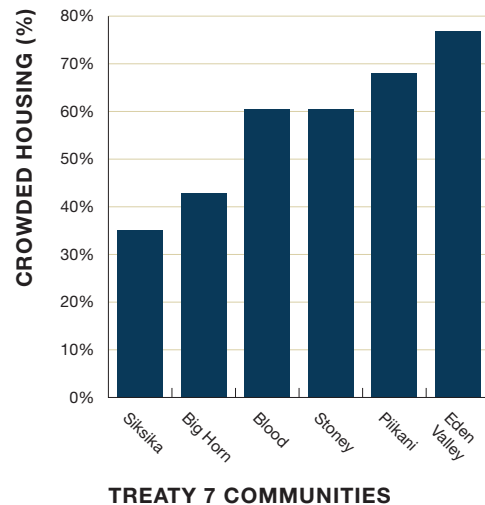
Source: Community profiles, 2006 Census, Statistics Canada website, 2008

Figures 67 to 69 examine the proportion of houses requiring major repairs by Treaty Area. Figure 65 shows significant variations across First Nations communities in Treaty 6, ranging from 38.9 per cent of houses in Sunchild to 81.3 per cent in Alexis.

Figure 68 provides the proportion of dwellings requiring major repairs for the Treaty 7 communities. The results range from 35.1 per cent in Siksika to 76.9 per cent in Eden Valley.

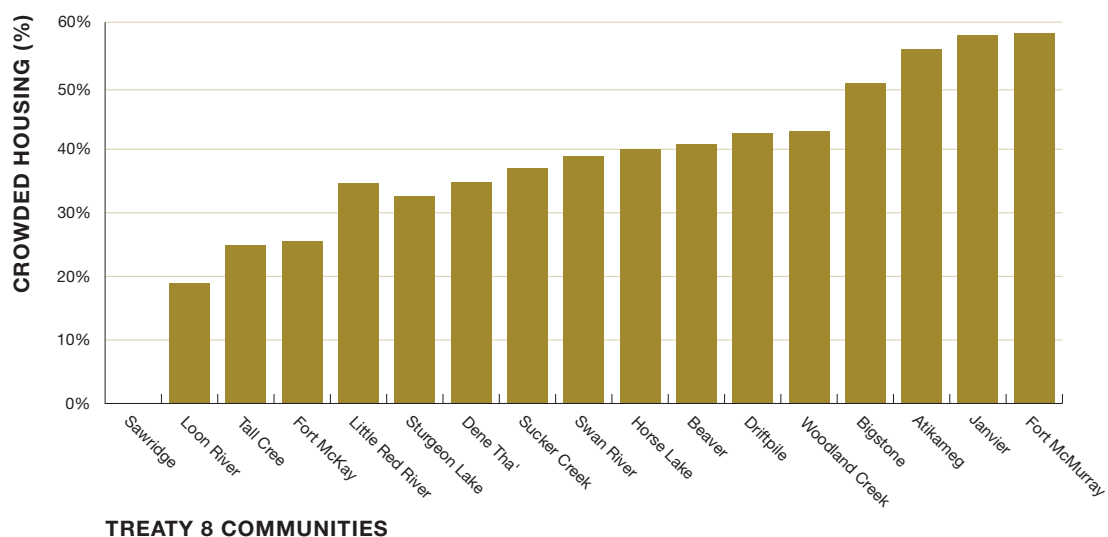
Figure 69 shows that significant variations exist between Treaty 8 communities as it ranges from 19 per cent in Loon River to 58.3 per cent in Fort McMurray.

> **Figure 68:** Dwellings Requiring Major Repairs in Treaty 7 First Nations Communities (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008

> **Figure 69:** Dwellings Requiring Major Repairs in Treaty 8 First Nations Communities (2006)



Source: Community profiles, 2006 Census, Statistics Canada website, 2008

Housing conditions for First Nations are much poorer than for other Albertans and Canadians, although the issues vary considerably across communities.

# Community Well-Being Index

This document has examined determinants of health for First Nations in Alberta. In 2004, Indian and Northern Affairs Canada (INAC) developed the Community Well-Being Index comparing the average level of well-being of First Nations communities to other Canadian communities<sup>45</sup>.

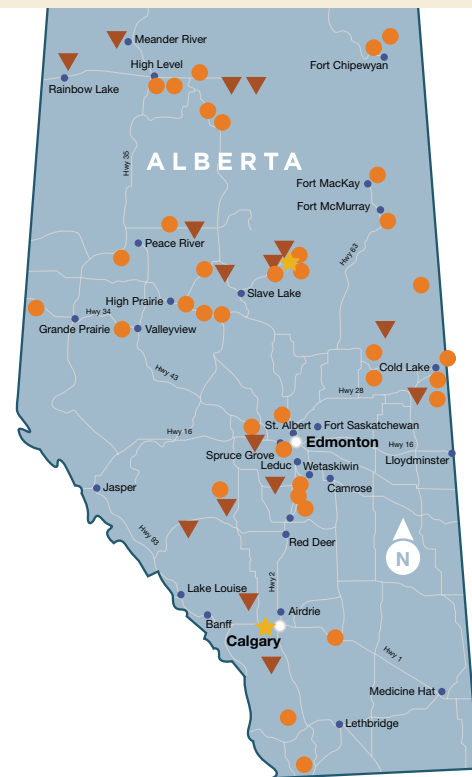
The Community Well-Being Index is based on the United Nations Human Development Index, which measures quality of life in order to compare results from over 170 countries. In the early 1990s, Canada regularly ranked first in the world. In 2008<sup>46</sup>, Canada ranked third in the world behind Iceland and Norway.

The Community Well-Being Index has four primary indicators<sup>47</sup>:

- Education - measured by literacy standards (at least a Grade 9 education) and the attainment of at least a high school diploma
- Labour force activity - measured by labour force participation (labour force participants divided by the total population) and employment among labour force participants (employed persons divided by labour force participants)
- Income - defined as average total income (total income divided by total population)
- Housing conditions - measured by housing quality (if major repairs are needed) and housing quantity (if the home is crowded, containing more than one person per room)

All of these indicators were reviewed earlier in this report using more recent data, mainly results from the 2006 Census. The advantage of the Community Well-Being Index is that it provides a high level view of the well-being of a community. The data were gathered from First Nations communities with an on-reserve population over 65 that participated in the 2001 Census. The map on the right provides the geographic representation for First Nations communities in Alberta.

## > Measuring Well-Being in First Nations Communities: The Community Well-Being (CWB) Index



### Alberta - CWB Levels

★ Above Average (2) ● Average (38) ▼ Below Average (17)

These levels are based on one standard deviation above and below the mean CWB score for First Nations in Canada with populations of 65 or more.

Source: Statistics Canada, Census of Population, 2001 Mapping: ©2000, Government of Canada with permission from Natural Resources Canada

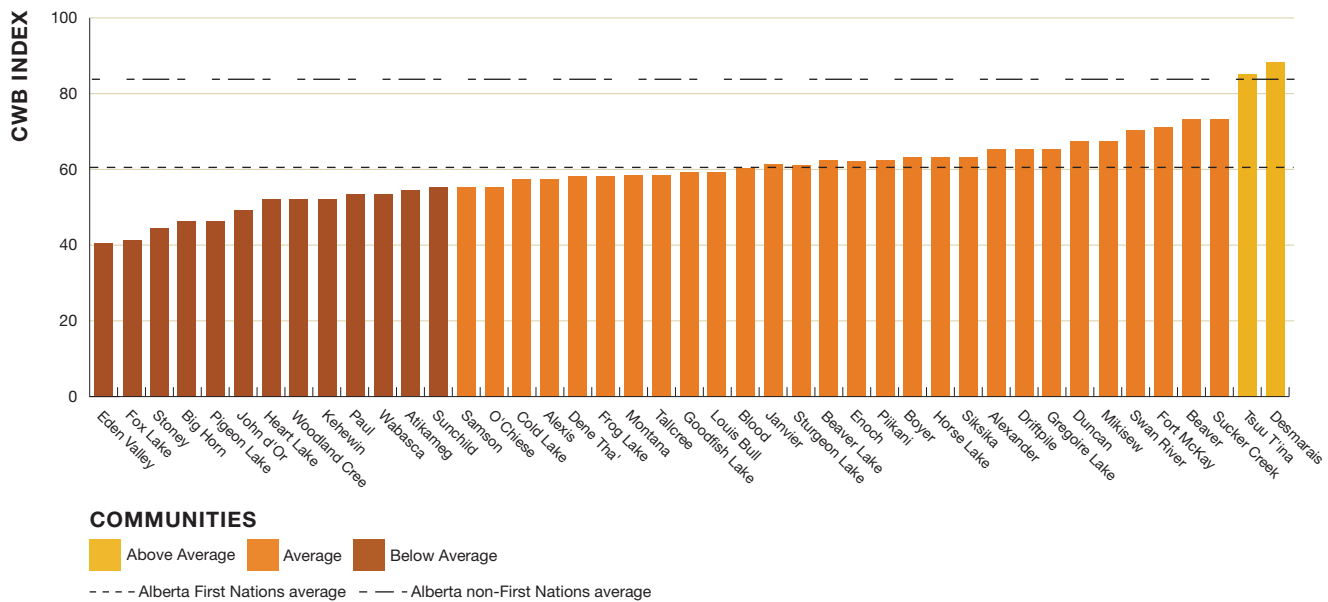
Interestingly, there is no clear geographic delineation for the coding. Only two First Nations communities are identified as above average (Tsuu T'ina and Bigstone/Desmarais).

<sup>45</sup> "Measuring First Nations Well-Being", Strategic Research and Analysis Directorate, Indian and Northern Affairs Canada website

<sup>46</sup> United Nations Development Programme website

<sup>47</sup> "Frequently Asked Questions: Measuring First Nations Well-Being", Indian and Northern Affairs Canada

> **Figure 70:** Community Well Being Index for First Nations Communities in Alberta (2001)



Source: Community Well-Being Index (CWB) database, 2001, Indian and Northern Affairs Canada

Caution should be used in reviewing the results from Tsuu T'ina, as the 2001 Census identifies more than half of the people residing in Tsuu T'ina as not identifying themselves as North American Indian or as Aboriginal.

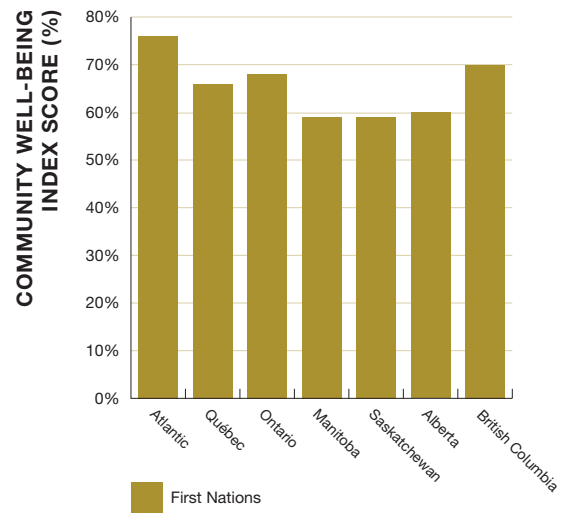
Average and below average rankings can be found across Alberta. In most provinces, isolation and remoteness would tend to lead to a lower ranking but not in Alberta where a number of isolated and remote communities have an average ranking. By the same token, proximity to a large urban centre usually leads to higher rankings, again that is not necessarily the case for First Nations communities in Alberta as a few communities in the greater Edmonton area had a below average rating.

Figure 70 shows the Community Well-Being Index for 43 First Nations communities. A number of First Nations communities are not included in the graph, as the information for the Index is based on completion of the 2001 Census which was not completed by three communities in Alberta and the information is not available for smaller communities (e.g., Kapawe'no, Sawridge, etc.).

Twelve First Nations communities in Alberta, or 27.9 per cent, are identified as below average. The lowest ranking for a First Nation community is 41 compared to 71 for a non-First Nation community, the town of Big Valley, Alberta. The "average" ranking was given to 29 First Nations communities, or 67.4 per cent of the communities assessed. Most towns and cities in Alberta receive an "above average" ranking, while only two First Nations communities received this ranking.

As with other socio-economic indicators, it is possible to compare the results on the Community Well-Being Index for First Nations communities across Canada. Figure 68 shows that the Prairie provinces are trailing the other regions. The results in Figure 71 are not very different than the results of Figure 39 (Page 34) which illustrates educational attainment for First Nations in Canada, showing the importance of education to well-being.

> **Figure 71:** Community Well-Being Index: A National Perspective for First Nations (2001)



Source: Community Well-Being Database, 2001, Indian and Northern Affairs Canada



# Conclusion

This report seeks to provide information on the determinants of health for First Nations in Alberta. It has done so by gathering and analyzing data from many sources, most of them publicly available.

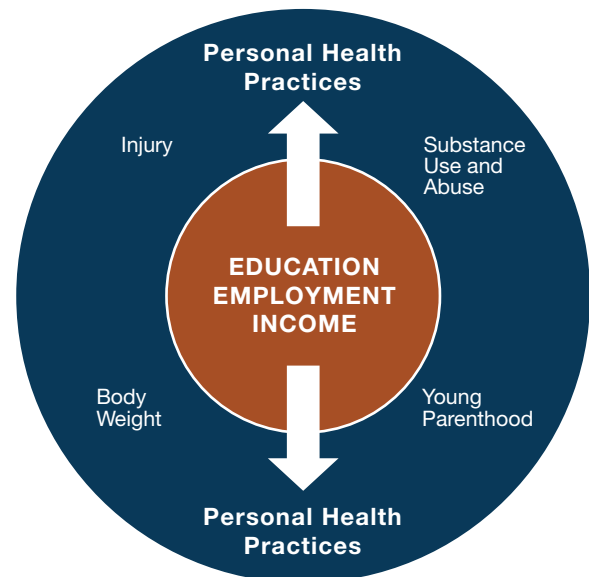
Overall, the document shows that significant differences exist between First Nations communities in Alberta and between First Nations and non-Aboriginal populations in Alberta and Canada. The document identified some key points:

- The First Nations population in Alberta is growing rapidly, outpacing the natural rate of growth of a population.
- The on-reserve First Nations population in Alberta tend to be living in more populated communities than in the neighbouring provinces.
- For most health indicators, First Nations trail the rest of the Canadian population, but a number of indicators have improved over the years including infant mortality rates and life expectancy at birth.
- A significant educational gap exists between First Nations and other Albertans and Canadians—in terms of high school completion, the gap is widening as the proportion of First Nations completing high school is not increasing as quickly as for non-First Nations students.
- There are significant gaps in terms of income and employment between First Nations and the non-Aboriginal population; the gaps seem to be correlated to educational attainment.
- Housing conditions for First Nations are poorer than for other Albertans and Canadians as they live in more crowded houses and a significant proportion of the on-reserve housing requires major repairs.

Throughout this report, linkages were established between determinants of health. It appears that a few specific determinants play a key role—education, employment and income.

In turn, the data clearly show that these socio-economic indicators are impacted by four key personal health practices:

- Injury - The Health Status Reports have consistently highlighted much higher rates of injury for First Nations than for non-Aboriginal population; similar findings were presented when examining mortality causes.
- Substance use and abuse - much higher rates of daily smoking and heavy drinking for First Nations compared to the non-Aboriginal population.
- Young parenthood - First Nations become parents at a much younger age which may lead to more precarious economic circumstances.
- Body weight - higher prevalence of obesity, which can lead to a number of chronic conditions and poorer health status.





# Glossary

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## Aboriginal Identity

Refers to the persons who reported identifying with at least one Aboriginal group, for example, North American Indian, Métis or Inuit, and/or those who reported being a Treaty Indian or a Registered Indian as defined by the Indian Act of Canada and/or who were members of an Indian Band or First Nation. In 1991 and previous censuses, Aboriginal persons were determined using the ethnic original question (ancestry). The 1996 and 2001 censuses included a question on the individual's own perception of his/her Aboriginal identity.

*Source: Community profiles, Statistics Canada*

## Body Mass Index (BMI)

The BMI is based on self-reported height and weight and calculated for persons 18 years of age and over, excluding pregnant women. Due to different rates of growth for individuals under 18 years of age, the standard BMI is not considered a suitable indicator for this group. BMI is calculated as weight (in kilograms) divided by height (in metres) squared, that is:

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (m}^2\text{)}}$$

*Source: Healthy Canadians: A Federal Report on Comparable Health Indicators 2004, Health Canada.*

## Children in Care

The number of children who were placed away from parental care to protect them from neglect and/or abuse, or to prevent neglect and/or abuse. The children were placed either in foster care, group homes or institutional care.

*Source: Basic Departmental Data, 2004, INAC*

## Community Well-Being Index

The Community Well-Being Index (CWB) is a product of Indian and Northern Affairs Canada's Strategic Research and Analysis Directorate. It was derived from the 2001 Census and is a means of measuring well-being in Canadian communities. It combines indicators of income, education, labour force activity and housing conditions into a single number—the CWB score. The CWB scores may fall anywhere between zero and 100, with 100 being the highest. A score was generated for each community that participated in the 2001 Census, allowing an at-a-glance look at the relative well-being of those communities. Note that scores are not reported for communities with fewer than 65 inhabitants or those with data quality issues.

*Source: Community profiles, Statistics Canada*

## Condition of Dwelling

Condition of dwelling refers to whether, in the judgment of the respondent, the dwelling requires any repairs (excluding desirable remodelling or additions). Regular maintenance refers to painting, furnace cleaning, etc. Minor repairs refer to the repair of missing or loose floor tiles, bricks or shingles, defective steps, railing or siding, etc. Major repairs refer to the repair of defective plumbing or electrical wiring, structural repairs to walls, floors or ceilings, etc.

*Source: Aboriginal peoples in Canada in 2006: Inuit, Métis and First Nations, 2006 Census, Statistics Canada*

## Crowded Housing

Crowded housing is defined as more than one person per room (not counted as rooms are bathrooms, halls, vestibules and rooms used solely for business purposes).

*Source: Aboriginal peoples in Canada in 2006: Inuit, Métis and First Nations, 2006 Census, Statistics Canada*

### **Crown Lands**

Land where title is held by her majesty (the Crown), but has not been officially set aside for the use and benefit of a band (or bands).

**Source:** *A Statistical Profile on the Health of First Nations in Canada: Determinants of Health, 1999 to 2003*, Health Canada

### **Dwellings**

Defined as self-contained living accommodations (with at least one separate bedroom), and considered to be a main residence, irrespective of occupancy, level of completeness, or need for renovation or replacement.

**Source:** *Basic Departmental Data, 2004*, INAC

### **Employment Rate**

Refers to the number of persons employed in the week (Sunday to Saturday) prior to the survey, expressed as a percentage of the total population 15 years of age and over.

$$ER = \frac{\text{Number of employed individuals}}{\text{Population 15 years of age and over}} \times 100$$

**Source:** *Community profiles*, Statistics Canada

### **Health Adjusted Life Expectancy (HALE)**

HALE is an indicator of overall population health. It represents the number of expected years of life equivalent to years lived in good health, based on the average experience in a population. Trends in HALE should be examined in conjunction with trends in life expectancy.

**Source:** *Healthy Canadians: A Federal Report on Comparable Health Indicators 2004*, Health Canada.

### **Heavy Drinking**

Heavy drinking is measured by the number of times an individual stated having consumed five or more alcoholic drinks on one occasion once a month or more in the previous year.

**Source:** *Health Reports: How Healthy Are Canadians? 2002 Annual Report*, catalogue no. 82-003-SIE, Statistics Canada

### **Income Assistance Beneficiaries**

Income support beneficiaries are defined as the combined total of the number of persons in a family and single individuals.

**Source:** *Basic Departmental Data, 2004*, Indian and Northern Affairs Canada

### **Income Assistance Recipients**

Income support recipients are defined as the combined total of the number of families (heads of household) and single individuals who are eligible to receive income support funding.

**Source:** *Basic Departmental Data, 2004*, Indian and Northern Affairs Canada

### **Income Support Dependency Rate**

The number of income support beneficiaries divided by the total population in a given area whether community, Treaty area or province.

**Source:** *Indian and Northern Affairs Canada*

### Labour Force

Refers to persons who were either employed or unemployed during the week prior to the survey.

Employed are persons who during the reference week:

- Did any work at all for pay or in self-employment or without pay in a family farm, business or professional practice
- Were absent from their job or business, with or without pay, for the entire week of because of a vacation, an illness, a labour dispute at their place of work or any other reasons

Unemployed are persons who, during the reference week were without paid work or without self-employment work and were available for work and either:

- Had actively looked for paid work in the past four weeks
- Were on temporary lay-off and expected to return to their job
- Had definite arrangements to start a new job in four weeks or less

Source: *Community profiles, Statistics Canada*

### Median

The middle value of a series of values arranged in order of size.

Source: *The Concise Oxford Dictionary, Ninth Edition*

### Participation Rate

Refers to the labour force in the week (Sunday to Saturday) prior to the survey, expressed as a percentage of the population 15 years of age and over.

$$PR = \frac{\text{Labour Force (employed + unemployed)}}{\text{Population 15 years of age and over}} \times 100$$

Source: *Community profiles, Statistics Canada*

### Population health

Population health is an approach to health that aims to improve the health of the entire population and to reduce health inequities among population groups. In order to reach these objectives, it looks and acts upon the broad range of factors and conditions that have a strong influence on our health.

Source: *Public Health Agency of Canada, website*

### Total Fertility Rate

Total Fertility rate is the expected total number of children that a woman will have. The Total Fertility Rate assumes that women will survive at least until the end of the childbearing age group and that they will bear children according to the prevailing age-specific rates as they progress through their childbearing years.

Source: *Comparison of Socio-Economic Condition, 1996 and 2001, Indian and Northern Affairs Canada*

### Unemployment Rate

Refers to the unemployed expressed as a percentage of the population 15 years of age and over.

$$UR = \frac{\text{Number of unemployed}}{\text{Labour Force}} \times 100$$

Source: *Community profiles, Statistics Canada*

# Bibliography

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## Alberta

- Alberta 2007-2008 Regional Health Authority Global Funding: Methodology and Funding Manual, Alberta Health & Wellness
- 2007-2017 Alberta Immunization Strategy, Alberta Health & Wellness
- Alberta Government Services Vital Statistics
- Alberta Health Services website
- Alberta High School Student Outcomes, Completion Rates, July 2007, Alberta Education website
- Canadian Addictions Survey 2004 – Alberta Report, Alberta Alcohol and Drug Abuse Commission (AADAC), 2006
- Children & Youth Services, Business Plan 2008-2011, Ministry of Children & Youth, 2008
- First Nations, Métis and Inuit Education Policy Framework, Alberta Education
- Self-Reported Body Mass Index and its correlates in Alberta: A portrait from survey and administrative sources, Alberta Health & Wellness, 2005
- Student Outcomes Measures – Based on the Grade 10 Cohort, Alberta Education, April 2006
- The 2004 Public Survey about Health and the Health System in Alberta, Alberta Health & Wellness
- TB Control, Alberta Health & Wellness

## Assembly of First Nations

- Results for Adults, Youth and Children Living in First Nations Communities, First Nations Regional Longitudinal Health Survey (RHS) 2002-2003
- The First Nations Regional Longitudinal Health Survey (RHS): An Overview of Process & Results, Presentation, 2006

## British Columbia

- Aboriginal Report – 2005/06 How Are we Doing? – Province – Public Schools Only, 2006, Knowledge Management Department, Ministry of Education

## Canadian Institute for Health Information (CIHI)

- Canadian Institute for Health Information (CIHI) “Applying a Population Health Perspective to Health Planning and Decision Making”, June 2008
- Improving the Health of Canadians, Revised September 2004

## Health Canada

- 2006 External Environmental Scan
- 2006-2007 Health Protection Report, First Nations and Inuit Health (Alberta)
- Aboriginal Head Start On-Reserve (AHSOR), Alberta Regional Progress Report 2005-2006, First Nations and Inuit Health
- A Statistical Profile on the Health of First Nations in Canada (for the year 2000), 2003
- A Statistical Profile on the Health of First Nations in Canada: Determinants of Health, 1999 to 2003, Health Canada, 2009
- Canadian Addictions Survey: A National Survey of Canadians’ Use of Alcohol and Other Drugs, Health Canada, 2005
- Canadian Addictions Survey: A National Survey of Canadians’ Use of Alcohol and Other Drugs – Substance Use by Canadian Youth, 2007
- FNIHB Alberta Region Health Assessment and Surveillance Mortality Database
- FNIHB Living Environment Working Group, Office of Community Medicine, What Does it take to Build and Maintain Healthy Homes on Reserve?, Health Canada, 2006.
- Health Protection in-house statistics, FNIH – Alberta Region, Health Canada
- Health Protection notifiable disease database, FNIH – Alberta Region, Health Canada
- Healthy Canadians – A Federal Report on Comparable Health Indicators 2004, Health Canada
- Report to Alberta First Nations, Injury-Related Mortality 1990-1999, First Nations & Inuit Health (Alberta), Health Canada

## Indian and Northern Affairs Canada

- Basic Departmental Data, 2004
- Community Well-Being: A Comparable Communities Analysis, 2007
- Community Well-Being Index (CWB) Database, 2001
- Comparison of Socio-Economic Conditions, 1996 and 2001, Indian and Northern Affairs Canada First Nations in Alberta, 1998
- First Nation Profiles, Indian and Northern Affairs Canada website
- Frequently Asked Questions Measuring First Nations Well-Being, 2004

- Guimond, E. and Robitaille, N. “Aboriginal Populations in Canadian Cities: What’s Behind the Spectacular Growth?”, Strength in Numbers Conference, hosted by Statistics Canada, 2008
- Historical Trends – Registered Indian Population, Alberta Region 1982-2005, First Nations and Northern Statistics Section
- Indian Registry, Indian and Northern Affairs Canada
- Internal data, Indian and Northern Affairs Canada
- Measuring First Nations Well-Being, 2004
- Measuring the Well-Being of Aboriginal People: An Application of the United Nations’ Human development index to Registered Indians in Canada, 1981-2001, 2004
- Measuring Well-Being in First Nations Communities: The Community Well-Being Index, 2004
- The First Nations Community Well-Being Index (CWB): A Conceptual Review, 2005
- Steffler, J., “Registered Indian Population, Household and Family Projections, 2004-2029”, Strength in Numbers Conference, hosted by Statistics Canada

### International Sources

- Closing the gap in a generation: Health inequity through action on the social determinants of health, Commission on Social Determinants of Health, World Health Organization, 2008
- Prime Minister’s Annual Statement to Parliament on Closing the Gap, Closing the Gap on Indigenous Disadvantage: The Challenge for Australia, Australia, 2009
- United Nations Development Programme website
- World Health Organization website

### Policy Research Initiative

- Hope or Heartbreak: Aboriginal Youth and Canada’s Future, Horizons, Policy Research Initiative
- Guimond, E. “Fuzzy Definitions and Population Explosion: Changing Identities of Aboriginal Groups in Canada”, Not Strangers in These Parts: Urban Aboriginal Peoples, Policy Research Initiative, 2003

### Public Health Agency of Canada

- Public Health Agency of Canada website
- The Chief Public Health Officer’s Report on the State of Public Health in Canada 2008 – Addressing Health Inequalities, Public Health Agency of Canada, 2008

### National Aboriginal Health Organization

- What First Nations People Think about their Health and Health Care, 2003

### Saskatchewan

- First Nations and Métis Education portion, Ministry of Education, Government of Saskatchewan website

### Statistics Canada

- 2001 Community Profiles, Statistics Canada website, 2007
- 2003 Canadian Community Health Survey aged 12 and over, Statistics Canada website
- 2006 Census Aboriginal Data Highlights, Presentation to FNIH Regional Management Committee, Statistics Canada, May 2008
- Aboriginal Identity, Age Groups, Area of Residence, Sex and Selected Demographic, Cultural, Labour Force, Educational and Income Characteristics, for the Total Population of Canada, Provinces and Territories, 2006 (Census), Statistics Canada
- Aboriginal Identity, Condition of Dwelling, Number of Persons per Room, Age Groups, Sex and Area of Residence for the Population in private Households of Canada, Provinces and Territories, 2006 Census – 20% Sample Data (table). Topic-based tabulation. 2006 Census of Population. Statistics Canada catalogue no. 97-558-XCB2006022. Ottawa. Released January 2008.
- Aboriginal Identity, Highest Certificate, Diploma or Degree, Major Field of Study – Classification of Instructional Programs, 2000, Area of Residence, Age Groups and Sex for the Population 15 Years and Over of Canada, Provinces and Territories, 2006 Census, Statistics Canada, 2008
- Aboriginal Peoples in Canada in 2006: Inuit, Métis and First Nations, 2006 Census, catalogue no. 97-558-XIE, Statistics Canada, 2008
- Alberta (table). 2006 Community Profiles. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Statistics Canada 2007.
- Bushnick, T., and Garner, R., “The Children of Older First-time Mothers in Canada: Their Health and Development”, Children and Youth Research Paper Series, Statistics Canada, catalogue no. 89-599-M, no. 005, 2008
- Canadian Demographics at a Glance, Catalogue no. 91-0003-X, Statistics Canada, 2008

- Custom tables, 2006 Census, Statistics Canada
- Frequency of drinking 5 or more drinks in one occasion in the last 12 months by sex, household population aged 12 and over who are current drinkers, Canada and the provinces, 1998-1999, Statistics Canada website
- Health-Adjusted Life Expectancy, at Birth and at Age 65, by Sex and Income Group, Canada and provinces”, Statistics Canada, 2001
- Health of Canadians Living in Census Metropolitan Areas, Statistics Canada, 2004
- Highest level of education achieved
- Household size, by province and territory (2006 Census), Statistics Canada website
- Health Reports: How Healthy Are Canadians? 2002 Annual Report, catalogue no. 82-003-SIE, Statistics Canada
- Labour Force, Employed and Unemployed, Numbers and Rates, by Province, Statistics Canada website
- Literacy Profile of Off-Reserve First Nations and Métis People Living in Urban Manitoba and Saskatchewan: Results from the International Adult literacy and Skills Survey, 2007
- Luong, M. “Life after Teenage Motherhood”, Perspectives on Labour and Income, Statistics Canada, catalogue no. 75-001-X, vol. 9, no. 5, May 2008
- Median Total Income by Family Type, by Province and Territory, Statistics Canada website
- Occupied private dwellings by period of construction and condition of dwelling, by province and territory (2006 Census), Statistics Canada website
- Population by province and territory, Statistics Canada website
- Population Urban and Rural by Province and Territory (Alberta), Statistics Canada website, 2005
- Self-rated health, by sex household population aged 12 and over, Statistics Canada, catalogue no. 82-221-XIE, May 2002
- Smoking status by sex household population aged 12 and over, Canada and provinces, 1998-1999, Statistics Canada website
- Zuchewich, N., “Aboriginal Children and Youth in Alberta”, Strength in Numbers Conference hosted by Statistics Canada

## Other

- Amato, P.R., “The Impact of Family Formation Change on the Cognitive, Social, and Emotional Well-Being of the Next Generation”, *The Future of Children*, vol. 15, no. 2, Fall 2005
- DeWit, DJ et al. “Age at First Alcohol Use: A Risk Factor for the Development of Alcohol Disorders”, *American Journal of Psychiatry*, May 2000
- DiFranza, J.R., Aligne, C.A., Weitzman, M., “Prenatal and Postnatal Environmental Tobacco Smoke Exposure and Children’s Health”, *Pediatrics*, vol. 113, no. 4, April 2004
- First International Conference on Health Promotion, “Ottawa Charter for Health Promotion”, 1986
- Pitkanen, T. et al. “Age of Onset of Drinking and the Use of Alcohol in Adulthood: A Follow-Up Study from Age 8-42 for Females and Males”, *Addiction, Society for the Study of Addiction*, 2005
- Raphael, D. (editor), “Social Determinants of Health: Canadian Perspectives”, Canadian Scholars’ Press Inc., 2004
- Resnick, M.D., Harris, L.J., Blum, W. “The Impact of Caring and Connectedness on Adolescent Health and Well-Being”, *Journal Paediatric Child Health*, 1993, 29, Suppl. 1, S3-S9
- Richards, J., Closing the Aboriginal / non-Aboriginal Education Gaps, CD Howe Institute, October 2008
- Rothe, P. et al. “A Qualitative Inquiry into Drinking and Driving among Alberta’s First Nations Post-Secondary Youth Aged 18-29”, Alberta Centre for Injury Control and Research, 2004
- Thatcher, R.W., Fighting Firewater Fictions: Moving Beyond the Disease Model of Alcoholism in First Nations, 2004
- The Well-Being of Canada’s Young Children, Government of Canada Report, 2008
- Vineis, P. et al. “Tobacco and Cancer: Recent Epidemiological Evidence”, *Journal of the National Cancer Institute*, vol. 96, no. 2, January 21, 2004









