

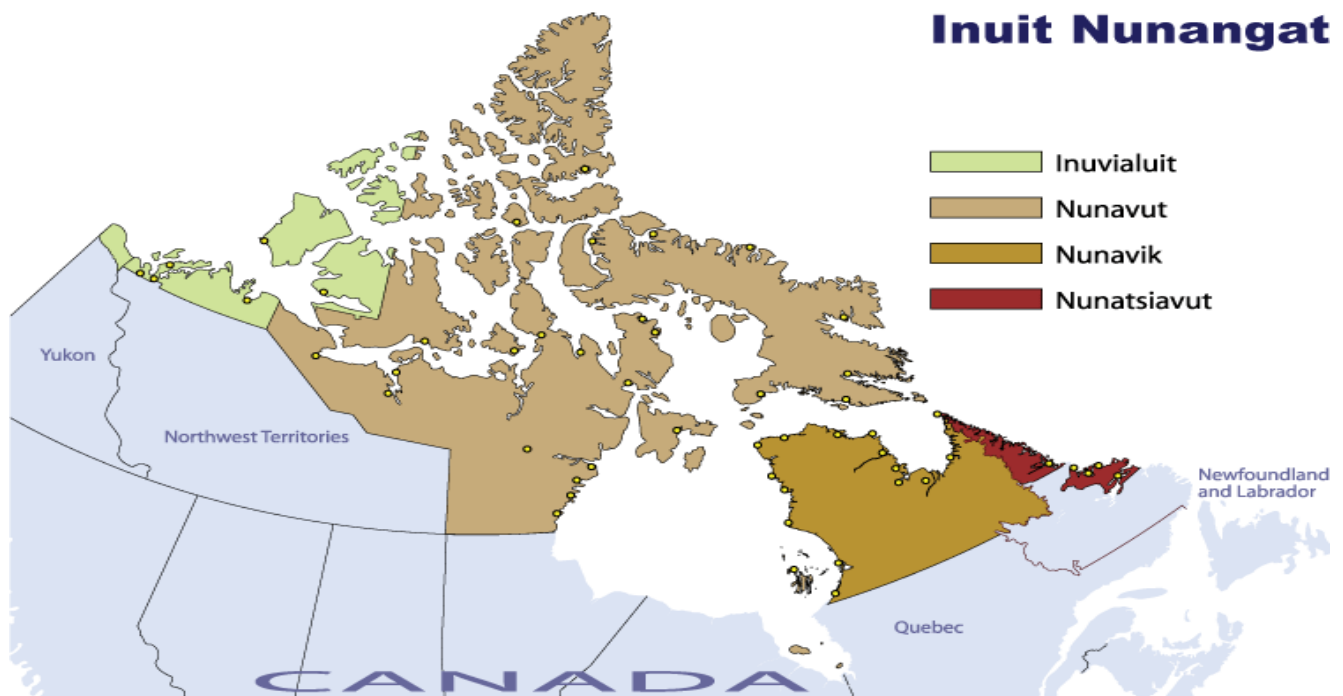
Health Indicators of Inuit Nunangat within the Canadian Context 1994-1998 and 1999-2003

Produced by Inuit Tapiriit Kanatami.

This report uses data generated by Statistics Canada and Health Canada's First Nations and Inuit Health Branch.

Summary

This document uses information from the Statistics Canada mortality database to provide insight into the health of Inuit. It compares two time periods, 1994-1998 and 1999-2003, within the four regions (the Inuvialuit Settlement Region of the Northwest Territories, Nunavut, Nunavik and Nunatsiavut) that make up Inuit Nunangat. It also compares Inuit Nunangat results with national results. Information for Inuit Nunangat includes all residents of this area, both Inuit and non-Inuit. In some cases there are significant differences between regions or within sub-populations, such as age groups. The results show that injuries, smoking-related causes of death and causes amenable to medical intervention account for a growing proportion of the inequality in life expectancy between residents of Inuit Nunangat and Canada as a whole.



For the full data set, please refer to CANSIM tables 102-0701 to 102-0706.

July 13, 2010

Contents

Executive Summary	1
Introduction	2
Key Findings	2
1. Low Birth Weight	3
2. Life Expectancy	3
3. Infant Mortality Rate	4
4. Perinatal Mortality	5
5. Age Standardized Mortality Rate	6
6. Age Standardized Mortality Rate 1994-1998 (by selected cause)	7
7. Age Standardized Mortality Rate 1998-2003 (by selected cause)	7
8. Comparing Mortality Rates between 1994-1998 and 1999-2003 (by region and gender)	8
9. Cause-Specific Potential Years of Life Lost 1994-1998	9
10. Cause-Specific Potential Years of Life Lost 1999-2003	10
Conclusion	10

Introduction

To determine the health of a population, certain indicators of health are used to assess conditions and to make comparisons between population groups. Life expectancy and the rate of infant mortality, for example, are two commonly used indicators. In this report, these and other indicators of health were compared by Statistics Canada over two time periods, 1994-1998 and 1999-2003 to see how health conditions have changed across the four regions of Inuit Nunangat over this time. For each of the indicators, an explanation of its meaning is provided, and key findings are listed for Inuit Nunangat, for each Inuit region and for Canada as a whole.

The data are not Inuit-specific, but represent the entire population of Inuit Nunangat. They are based on available health information from the Canadian Mortality database, and population information taken from the Canadian Census.

Key Findings

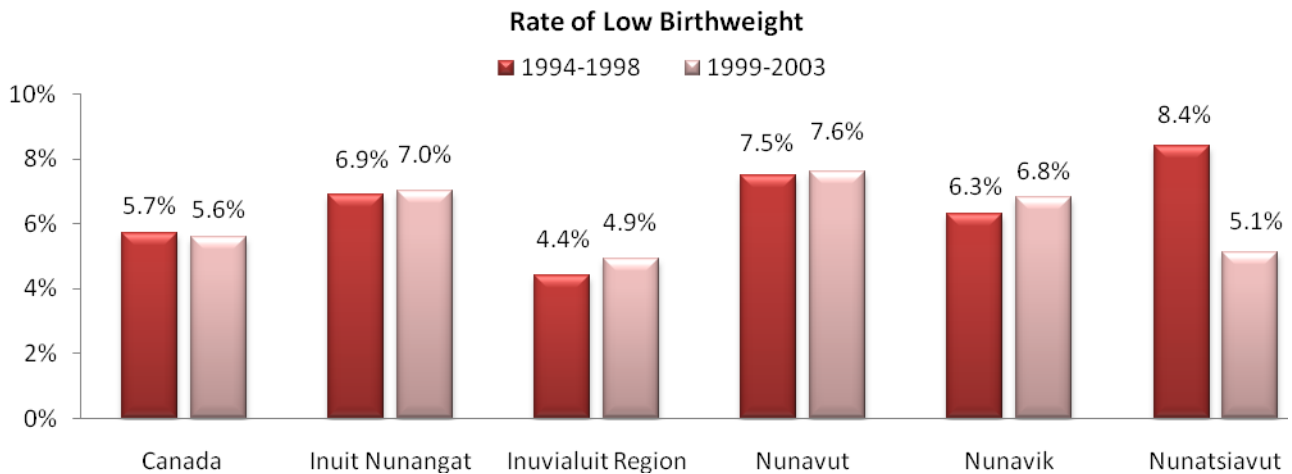
- Life expectancy in Inuit Nunangat was an average 12.2 years less than for all of Canada as a whole during 1999-2003, and this gap was shown to have been widening.
- Infant mortality in Inuit Nunangat is almost 3 times that of Canada as a whole.
- Low birth weight seems to have been increasing for Inuit Nunangat, while dropping across Canada as a whole.
- The mortality rate for Inuit Nunangat was twice that of Canada as a whole.
- Suicide/self-inflicted injury, respiratory disease, and unintentional injury are among the highest causes of death in Inuit Nunangat.
- Deaths due to cancers and suicide/self-inflicted injury rose over these periods, and were some of the highest causes of mortality in Inuit Nunangat.

Differences described are significant at the 5% level. Not all estimates shown in tables are significantly different.

1. Low Birth Weight

Definition: Proportion of live births (birth weight known) less than 2.5 kilograms.

Low birth weight is a key determinant of infant survival, health and development. Low birth weight infants are at a greater risk of disability and diseases such as cerebral palsy and respiratory illnesses.¹



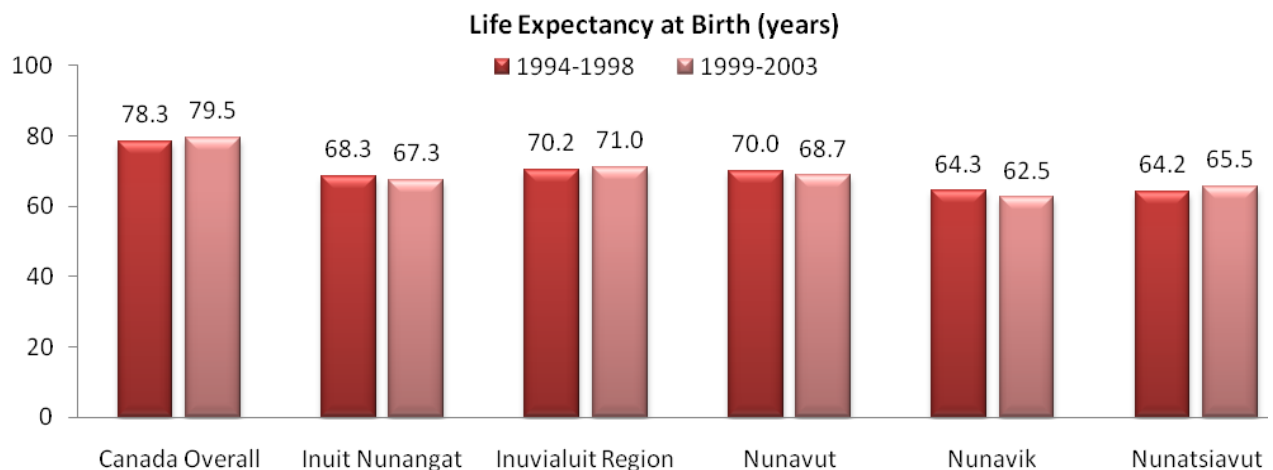
Low birth weight is increasing over these time periods, reflecting a worsening situation across Inuit Nunangat.

From 1994-1998, the rate of low birth weight in Inuit Nunangat was 1.2 times higher than for the total population of Canada (Canada as a whole). These observations are similar to the 1999-2003 period, where the rate of low birth weight in Inuit Nunangat was 1.3 times higher than in Canada as a whole. When comparing the two time periods, the rate for Canada dropped slightly while the rate in Inuit Nunangat did not change significantly.

2. Life Expectancy at Birth

Definition: The number of years a person is expected to live from the day he or she is born based on mortality statistics at the time.

A widely used indicator for the health of a population, life expectancy measures quantity rather than quality of life.²



The gap between the life expectancy of Inuit and for Canada as a whole has increased over these time periods.

¹Canadian Vital Statistics Database, Statistics Canada and l'Institut de la statistique du Quebec

² Statistics Canada

Differences described are significant at the 5% level. Not all estimates shown in tables are significantly different.

In 1994-1998, life expectancy at birth was significantly higher for Canada as a whole than for residents of Inuit Nunangat, with an overall difference of 10 years. This is also the case in 1999-2003, where life expectancy at birth was 12.2 years higher in Canada as a whole than in Inuit Nunangat. This change is the result of an improved life expectancy in Canada as a whole (from 78.3 to 79.5 years), and a decline in the life expectancy in Inuit Nunangat (from 68.3 to 67.3 years).

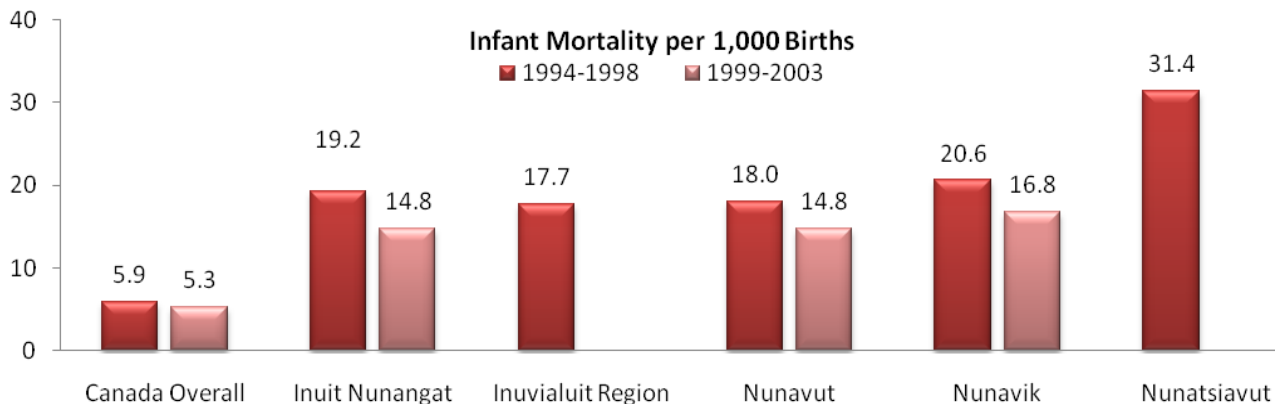
Looking at gender-specific results, males have a lower life expectancy than females in Canada as a whole and in Inuit Nunangat.

Regionally, during 1994-1998, there was variation in the life expectancy at birth, though all regions have a significantly lower life expectancy at birth than Canada as a whole. Residents of Nunavik and Nunatsiavut were found to have life expectancy at birth significantly lower than residents of Nunavut and the Inuvialuit Region. Regionally, the results in 1999-2003 were similar to those in the earlier time period. Residents of Nunavik and Nunatsiavut had a life expectancy at birth that was significantly lower than the residents of the Inuvialuit Region.

3. Infant Mortality Rate

Definition: *Number of infants who die in the first year of life, expressed as a rate per 1,000 live births.*

Infant mortality rate is a long-established measure, not only of child health, but also of the well-being of a society. It reflects the level of mortality, health status, and health care of a population, and the effectiveness of preventive care and the attention paid to maternal and child health.³



The infant mortality rate is higher for Inuit Nunangat than the rest of Canada.

Due to small numbers in some regions, data was suppressed to meet the confidentiality requirements of the Statistics Act.

When compared to Canada as a whole, the infant mortality rate was 3.3 times higher over 1994-1998 and 2.8 times higher over 1999-2003.

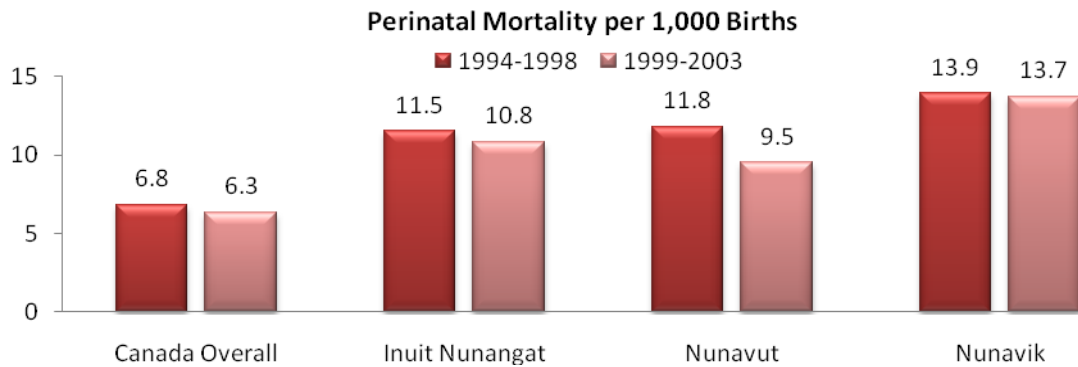
³ Canadian Vital Statistics Database, Statistics Canada

Differences described are significant at the 5% level. Not all estimates shown in tables are significantly different.

4. Perinatal Mortality

Definition: Annual number of stillbirths and early neonatal deaths (deaths in the first week of life) per 1,000 total births (includes stillbirths). Stillbirths are defined as gestational age of 28 or more weeks.²

The probability that a fetus considered to be viable will be stillborn or will die before the end of the first week of life. It reflects standards of obstetric and pediatric care, as well as the effectiveness of public health initiatives.²



Perinatal mortality rates are almost twice as high in Inuit Nunangat.

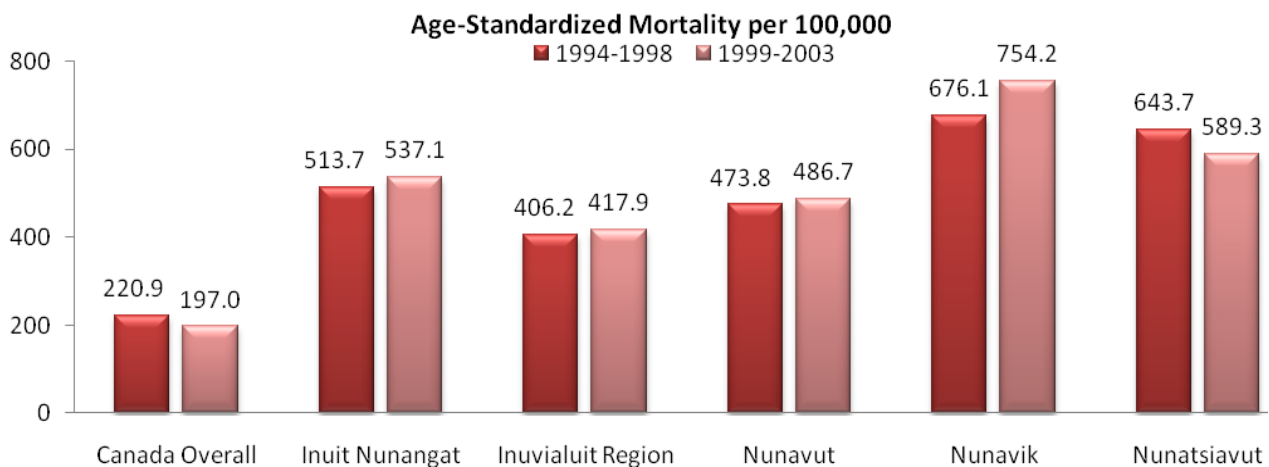
Due to small numbers, rates could not be calculated for two of the four regions to ensure confidentiality.

In the period 1994-1998, the perinatal mortality rate was 1.7 times higher in Inuit Nunangat than in Canada as a whole. The results for 1999-2003 were comparable to the earlier time period. The perinatal mortality rate dropped both in Inuit Nunangat and in Canada as a whole.

5. Age-Standardized Mortality Rate (ASMR)

Definition: Age-standardized rate of death from all causes per 100,000 population.⁴

This indicates the overall health of a population and is similar to what is measured by life expectancy. Age-standardization (as opposed to crude rates) allows for comparisons between health regions, provinces, and countries.² In this analysis, data were all standardized to the Inuit population profile for the period 1999-2003.



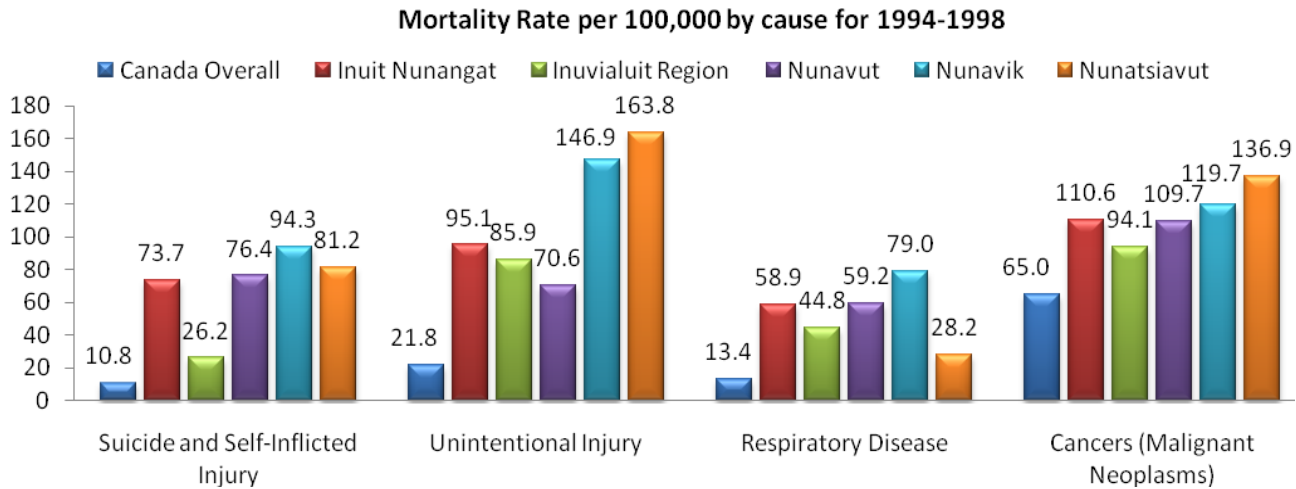
The age-standardized mortality rate is more than twice as high in Inuit Nunangat, and is consistently high across regions, although there is a large variation among them.

⁴ Canadian Vital Statistics Database, Statistics Canada

Differences described are significant at the 5% level. Not all estimates shown in tables are significantly different.

The age-standardized mortality rate was much higher in Inuit Nunangat. For the period from 1999-2003, the ASMR was 2.7 times higher in Inuit Nunangat than in Canada as a whole. In both Inuit Nunangat and Canada as a whole, the ASMR for males was much higher than for females. There are also significant differences noticed in ASMR between the regions.

6. Age Standardized Mortality Rate 1994-1998 (by selected causes)



Certain causes of death are impacting Inuit. The rate for suicide/self-inflicted injury in Inuit Nunangat is 6.8 times that of the national average.

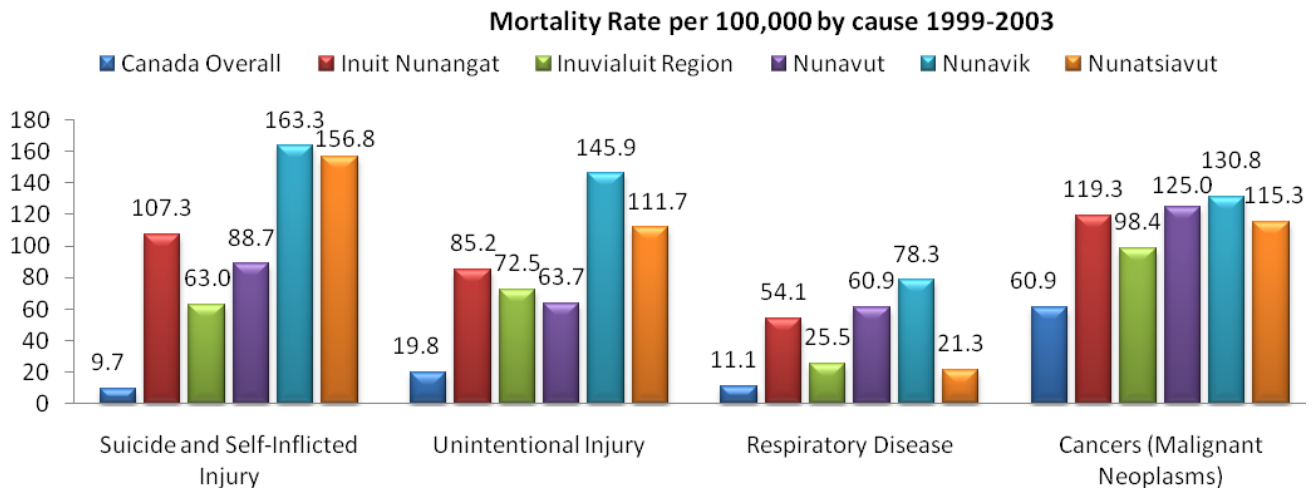
An examination of the causes of death shows that some causes were responsible for a disproportionately high number of deaths among the residents of Inuit Nunangat when compared to the rate for Canada as a whole.

The ASMR due to suicide/self-inflicted injury was 6.8 times higher in residents of Inuit Nunangat as compared to Canada as a whole. Death due to respiratory disease was 4.4 times higher among Inuit Nunangat residents and death due to unintentional injury was 4.4 times higher.

Even though the ratios of these two causes are the same (4.4 times), the difference in the actual rates is very large between them. The rates show that unintentional injuries are more responsible for the difference in mortality for Inuit Nunangat compared to Canada. Unintentional injury is followed by suicide/self-inflicted injury, and then respiratory disease.

Differences described are significant at the 5% level. Not all estimates shown in tables are significantly different.

7. Age Standardized Mortality Rate 1999-2003 (by selected causes)



Suicide continues to be a huge cause of death in Inuit Nunangat.

For the period 1999-2003, the ASMR due to suicide/self-inflicted injury was 11 times higher in Inuit Nunangat than in Canada as a whole. Death due to respiratory disease was 4.9 times higher among Inuit Nunangat residents compared with Canada as a whole, and death due to unintentional injury was 4.3 times higher.

When looking at the difference between the rates in this period, suicide and self-inflicted injury are responsible for the highest portion (difference in rates of 97.6/100,000) followed by unintentional injury and cancers (malignant neoplasms).

8. Comparing Mortality Rates between 1994-1998 and 1999-2003

Over the periods 1994-1998 and 1999-2003, there is a significant drop in ASMR in Canada as a whole and an increase in ASMR in Inuit Nunangat.

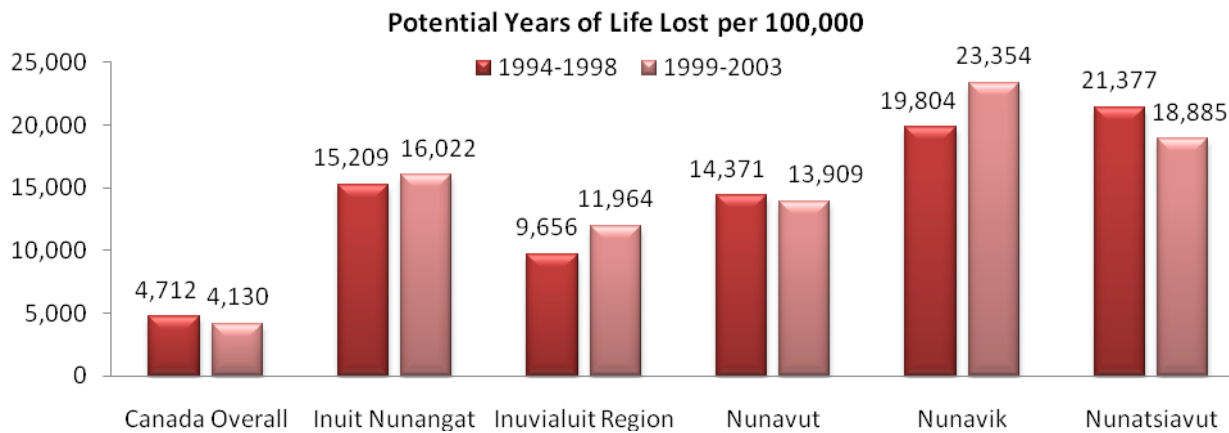
In both the 1994-1998 and 1999-2003 periods, the same causes of death are responsible for some of the highest ratios of death in Inuit Nunangat compared to Canada. These causes are suicide/self-inflicted injury, respiratory disease, and unintentional injury.

Cancers surpassed respiratory disease during 1999-2003 to become the third largest contributor to the difference in ASMR between Inuit Nunangat and Canada as a whole. The rate of suicide/self-inflicted injury also increased over that time period.

Differences described are significant at the 5% level. Not all estimates shown in tables are significantly different.

9. Potential Years of Life Lost, 1994-1998 and 1999-2003 (by region and gender)

Definition: Potential years of life lost (PYLL) is the number of years of life not lived when a person dies prematurely, defined as before age 75. A suicide at age 25, for example, has lost 50 potential years of life. Expressed per 100,000 people.⁵



Inuit Nunangat residents continue to struggle with higher rates of death than the rest of Canadians, having lost more than three times as many years of life during these periods.

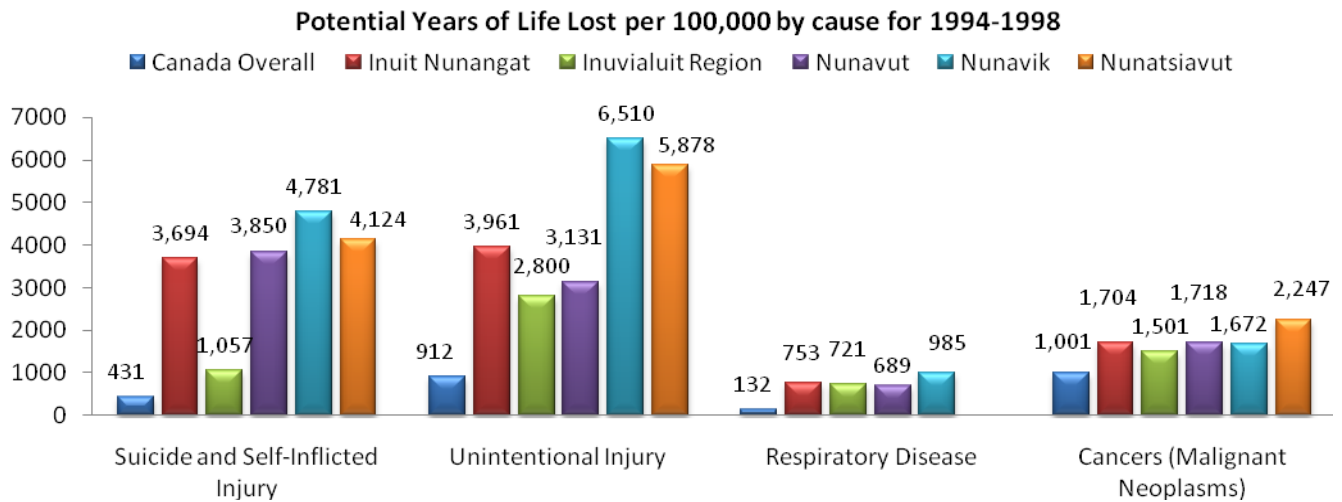
In 1994-1998, Inuit Nunangat had a rate of potential years of life lost 3.2 times higher than Canada as a whole, and in 1999-2003, the rate of PYLL in Inuit Nunangat was 3.9 times higher. The gap between PYLL in Inuit Nunangat and Canada as a whole was larger in the period 1999-2003 than it was between 1994 and 1998. This is due to a decrease in the PYLL in the rest of Canada between the two periods, combined with an increase in the PYLL in Inuit Nunangat.

The Inuvialuit Region has a lower rate of PYLL than any other Inuit region. The PYLL rate in Nunatsiavut was more than 4.5 times higher than in Canada as a whole for 1994-1998 and 1999-2003. The rate of PYLL in Nunavik was 4.2 times higher in 1994-1998 and 5.7 times higher in 1998-2003 than in Canada as a whole.

Also of note, the PYLL rate in Inuit Nunangat for 1994-1998, and 1999-2003 is approximately double among males than among females. This result is similar to that seen in Canada as a whole, but the difference is more extreme in Inuit Nunangat.

⁵ Canadian Vital Statistics Database, Statistics Canada

10. Cause-Specific Potential Years of Life Lost 1994-1998



Suicide, accidental death and respiratory disease contribute to increases PYLL across Inuit Nunangat compared to Canada as a whole.

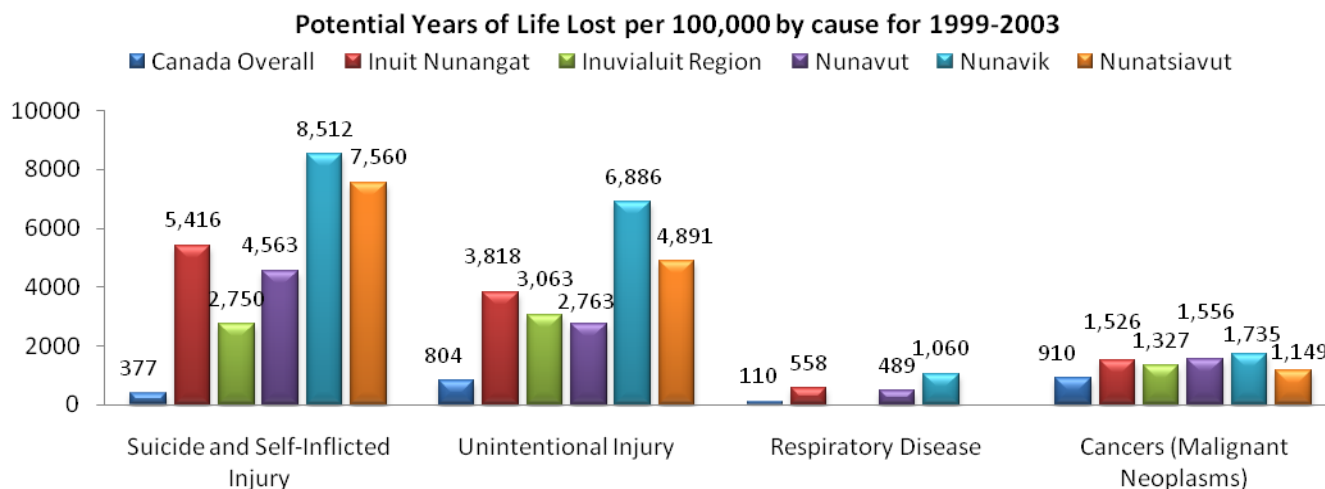
The disparity between Inuit Nunangat and the rest of Canada was driven primarily by specific causes. For instance, the ratio for suicide/self-inflicted injury indicates that 8.6 times as many life years were lost in Inuit Nunangat than in Canada as a whole between 1994-1998. Suicide was followed by respiratory disease at 5.7 and unintentional injury at 4.3. Examining the rate difference, suicide/self-inflicted injury remains highest, at 3,266 years of life lost. Unintentional injury was responsible for a far greater difference in number of PYLL than respiratory disease (3,049 vs. 621 years).

Looking at suicide/self-inflicted injury, the highest PYLL rate was noted in Nunavik, which was significantly higher than the rate in Nunatsiavut and Nunavut, which were both significantly higher than the rate in the Inuvialuit region. The rate of PYLL due to respiratory disease also varied by region, with Nunavik having a significantly higher rate than either the Inuvialuit region or Nunavut. Finally, the rate of PYLL due to unintentional injury was significantly higher in Nunatsiavut and Nunavik than in Inuvialuit and Nunavut.

Suicide and self-inflicted injuries and unintentional injuries remained responsible for the highest number of PYLL (3,694 and 3,961 years respectively), but cancers (malignant neoplasms) were responsible for the third most PYLL (1,001 years).

Differences described are significant at the 5% level. Not all estimates shown in tables are significantly different.

11. Cause-Specific Potential Years of Life Lost 1999-2003



Suicide rates are seen to have increased over these periods, showing a need to address key issues in Inuit Nunangat.

From 1999-2003, the PYLL rate due to suicide/self-inflicted injury was 14.4 times higher in Inuit Nunangat than the rest of Canada. This is far higher than the next two highest causes of death: respiratory disease (5 times higher) and unintentional injury (4.7 times higher).

Additionally, suicide/self-inflicted injury and unintentional injury were the two factors with the largest difference from the Canadian average (5,039 and 3,014 years respectively). The third largest contributor to the difference of PYLL in Inuit Nunangat was death related to malignant neoplasms (448 years), a cause of death that has a rate ratio of only 1.7 times the Canadian average.

Conclusion

These indicators are commonly used to describe the state of a people's health. When the rates being described in Inuit Nunangat are compared to the rates for the rest of Canada, the disparity in health conditions between these groups becomes very clear. For the given time periods, infant mortality rates are 2.8 times higher in Inuit Nunangat than in the rest of Canada. Put another way, for every baby in a 1,000 who died in Canada, almost three per 1,000 lost their lives across Inuit Nunangat. The average person in Inuit Nunangat could expect to live more than a decade less than any other Canadian, and a newborn in Inuit Nunangat was 20% more likely to be born underweight, increasing the risks for serious complications.

It is quite clear that Inuit are facing greater health challenges than other Canadians. The results show that specific causes of death concentrated in certain age categories are contributing to this difference, providing important insight for public health practitioners and researchers. These statistics highlight the need to improve healthcare in Inuit Nunangat. There is a large divide in conditions between Inuit Nunangat and the rest of Canada. As Canadians, Inuit deserve access to the same level of care that the rest of Canadians enjoy.