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A STATISTICAL PROFILE ON THE HEALTH OF FIRST NATIONS IN CANADA:

VITAL STATISTICS FOR ATLANTIC AND WESTERN CANADA, 2003-2007

1. INTRODUCTION

This document presents information on demographic indicators for First Nations people in Atlantic and Western Canada. It is an abridged version of the previous edition of "A Statistical Profile on the Health of First Nations in Canada, Vital Statistics for Atlantic and Western Canada 2001/2002". This current version contains Vital Statistics information for the First Nations population in Atlantic (births only) and Western Canada in comparison to the corresponding general population displayed in graphs and data tables, as well as brief data interpretation.

METHODOLOGY

2.1 DATA SOURCES

NUMERATORS

First Nations vital statistics were provided by the regional offices of the First Nations and Inuit Health Branch, Health Canada. Both First Nations and the general population birth data were selected based on usual residence of mother, and death data were based on usual residence of the deceased. Birth data for 2003 to 2007 were provided by the Atlantic region (New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador) and Western Canada (Manitoba, Saskatchewan, Alberta and British Columbia), while death data were provided for Western Canada only. Data obtained from Alberta included both the on- and off-reserve Registered (Status) First Nations population, while data obtained from Atlantic, Manitoba, Saskatchewan and British Columbia included only the on-reserve population. Birth and death data from Ontario and death data from Atlantic region were unavailable. Birth and death data from the Quebec region have not been presented due to data quality issues. Birth and death data for the appropriate general population are from the Canadian Vital Statistics databases at Statistics Canada.

DENOMINATORS

The Indian Register is the official record kept by Aboriginal Affairs and Northern Development Canada (AANDC) of all Status/Registered Indians in Canada and includes populations living on- and off-reserve. For this report, 2003–2007 estimates were used from the Indian Register adjusted for late and underreporting of births and deaths based on adjusted 2009 counts. Also, intercensal and postcensal estimates from 2003 to 2007 based on the 2006 Census of population (Statistics Canada) were used in order to obtain population estimates for the general population.

2.2 CALCULATION OF INDICATORS

CRUDE BIRTH RATE

The crude birth rate is calculated by dividing the number of live births in a given year by population estimates for the same calendar year. The rate is expressed as the number of live births per 1,000 population per year. Since this is a crude rate, it is affected by the age distribution of a population. It is useful for estimating the growth rate in a population, as well as planning for reproductive health care.

AGE-SPECIFIC FERTILITY RATE

The fertility rate is calculated by dividing the number of live births by the number of females of reproductive age (15 to 44 years of age). The rate is expressed as the number of live births per 1,000 female population per year. It is usually calculated for five-year age groups, and is thus an age-specific rate. It reflects the reproductive performance of a population, and is less affected by the age distribution of the population because it is age-specific.

TOTAL FERTILITY RATE

The total fertility rate is the sum of the age-specific fertility rates, usually 5-year rates, for women of reproductive age (15 to 44 years of age) during a specified time period, and represents the average number of children that would be born per woman if all women lived to the end of their childbearing years and bore children at the age-specific rates for that year.

SMALL-FOR-GESTATIONAL-AGE RATE AND LARGE-FOR-GESTATIONAL-AGE RATE

The small-for-gestational-age (SGA) rate is defined as the number of live births whose birth weight is below the 10th percentile while the large-for-gestational-age (LGA) rate is defined as the number of live births whose birth weight is above the 90th percentile of the sex-specific birth weight for gestational age¹. Both SGA and LGA rates are expressed as a proportion of all live births with gestational ages from 22 to 43 weeks.

CRUDE MORTALITY RATE

The crude mortality rate is calculated by dividing the number of deaths during a year by the total population for the same calendar year. It is expressed as the number of deaths per 1,000 population per year for both all-cause mortality and cause-specific mortality. Like the crude birth rate, it is useful in estimating population growth rate; however, it is greatly influenced by the age of the population, so is less useful for indicating the level of health.

RATE OF NATURAL INCREASE (GROWTH RATE OF POPULATION)

The rate of natural increase is a measure of population growth (excluding the effects of migration). It is the difference between the crude birth rate and crude mortality rate.

AGE-SPECIFIC MORTALITY RATES

Age-specific mortality rates are the number of deaths for a specified age group divided by the population of the same age group. It is expressed as the number of deaths per 1,000 population (for *all-cause mortality*) or per 100,000 population (for *cause-specific mortality*) per year. If the age groups are reasonably narrow, they are not influenced by the age composition of the population.

AGE-STANDARDIZED MORTALITY RATES

To compare mortality rates in the First Nations population with the general population, age-standardized rates were calculated. Age-standardized rates are expressed as the number of deaths per 1,000 population (for *all-cause mortality*) or per 100,000 population (for *cause-specific mortality*) per year. In this report, the age-standardized rate is calculated by using the direct method, multiplying the age-specific mortality rates of the Canadian population by the First Nations population of the same age groups to yield expected numbers of deaths. These are then added across age groups and the sum divided by the total First Nations population. The age-standardized rate represents what the crude rate would have been in the general population if it had the same age distribution as the First Nations population. Thus, it adjusts for differences in the age distributions of the populations being compared.

VITAL STATISTICS FOR ATLANTIC AND WESTERN CANADA, 2003-2007

POTENTIAL YEARS OF LIFE LOST (PYLL)

PYLL is the number of years of potential life not lived when a person dies before age 75. It is expressed as a rate per 100,000 population per year (crude or age-standardized). PYLL can be calculated for all causes combined or for specific causes.

AGE-STANDARDIZED POTENTIAL YEARS OF LIFE LOST (PYLL)

Similar to age-standardized mortality rates, age-standardized potential years of life lost were calculated. The age-standardized rate is calculated by using the direct method, multiplying the age-specific PYLL of the general population by the First Nations population of the same age groups to yield expected numbers of deaths. These are then added across age groups and the sum divided by the total First Nations population. The age-standardized PYLL represents what the crude rate would have been in the general population if it had the same age distribution as the First Nations population. Thus, it adjusts for differences in the age distributions of the populations being compared.

2.3 ANALYSIS

Preliminary analyses did not identify major differences over time for the years 2003 to 2007. As such, five-year averages are presented in this report.

2.4 LIMITATIONS

- For Atlantic birth data, 2003 data were excluded due to a low reporting rate as a result of a change in data collection methodology. Therefore, a 4-year average was calculated.
- The residency code, used to identify type of residence as on- or off-reserve, is not a mandatory data field in the Indian Register, and is only updated in conjunction with other events. In some cases an event may not be recorded at all, and in other cases, albeit rarely, an event may be recorded multiple times.
- Remoteness and lack of health services for many First Nations communities mean that some births
 or deaths occur in regions where health facilities do not exist. In addition, individuals may be required
 to travel outside of their home community to receive medical care.
- Lack of information on Aboriginal identity on vital events is also a cause of incomplete birth or death information. However, as there is no method to identify unreported cases there is no way of determining the degree to which the reported events are accurate.
- Data used in this report differ from those presented in the previous report as the British Columbia region was able to provide a refinement to their population information. As such, caution should be used when comparing the results presented in the two reports.

REFERENCES

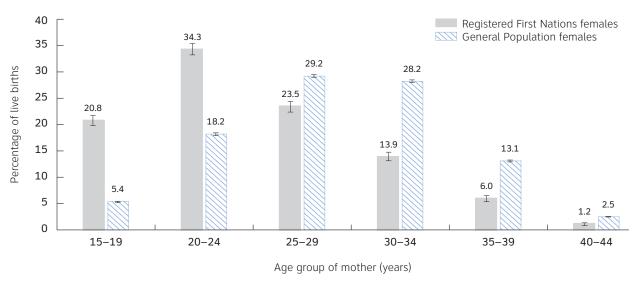
1. Kramer MS et al. A New and Improved Population-based Canadian Reference for Birth Weight for Gestational Age. Pediatrics 2001; 108(2):E35.

3. BIRTHS SECTION

3.1 LIVE BIRTH RATES

The 2003–2007 First Nations crude birth rate in Atlantic and Western Canada was 22.0 births per 1,000 population (95% CI: 21.5–22.6) in reporting regions. This rate was twice the rate of the corresponding general population (11.0 per 1,000 population, 95% CI: 11.0–11.1) (data not shown). This difference is at least partly due to the fact that the First Nations population is substantially younger. Since this is a crude birth rate, it is affected by the age distribution of the population. The largest proportion of known First Nations births occurred among 20 to 24 year olds (34.3%), whereas the largest proportion of births in the general population occurred among 25 to 29 year olds (29.2%) (Figure 1).

FIGURE 1. Percentage of Live Births, by Age of Mother, Registered First Nations¹ and General Population², 2003–2007³



¹ Includes on-reserve populations for British Columbia, Saskatchewan, Manitoba and Atlantic regions, and on- and off-reserve populations for Alberta region.

NOTES:

SOURCES: Health Canada, First Nations and Inuit Health Branch in-house statistics, 2003–2007; Canadian Vital Statistics Births Database, Statistics Canada, 2003–2007.

² Includes the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador.

 $^{^{\}scriptscriptstyle 3}$ 2004–2007 for Atlantic region.

a) Percentages of live births for the First Nations and general populations are an average of the live births reported in 2003 to 2007 (2004 to 2007 for Atlantic).

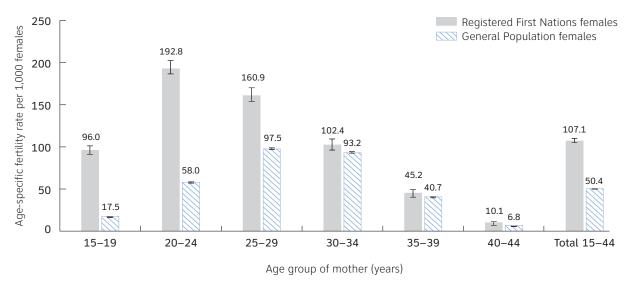
b) Bars represent 95% confidence intervals. If confidence interval bars do not overlap, the differences between the First Nations and general population figures are statistically significant.

c) Percentages may not add up to 100% as data for mothers under the age of 15 and over 44 are not shown.

3.2 AGE-SPECIFIC FERTILITY RATES

There was an observed peak in the fertility rate of First Nations females aged 20 to 24 years, after which it declined with increasing age. The fertility rate of females in the corresponding general population peaked at a slightly older age (25 to 29 years of age) (Figure 1). The total fertility rate for First Nations was 1.9 times higher than the corresponding general population in Atlantic and Western Canada (3.0 vs. 1.6 live births per female) (data not shown). Most of this high fertility among First Nations occurs in the youngest women, who also comprise a larger proportion of the First Nations population than of the general population.

FIGURE 2. Age-specific Fertility Rates per 1,000 Population, by Age Group of Mother, Registered First Nations¹ and General Population², 2003–2007³



¹ Includes on-reserve populations for British Columbia, Saskatchewan, Manitoba and Atlantic regions, and on- and off-reserve populations for Alberta region.

NOTES

NUMERATOR SOURCES: Health Canada, First Nations and Inuit Health Branch in-house statistics, 2003–2007; Canadian Vital Statistics Births Database, Statistics Canada, 2003–2007.

DENOMINATOR SOURCES: Aboriginal Affairs and Northern Development Canada (AANDC), 2003–2007 population estimates (adjusted for the late and under-reporting of births and deaths) for the Registered Indian population based on adjusted 2009 population counts; Statistics Canada, Intercensal and Postcensal estimates by age group and sex, Canada, provinces and territories, CANSIM (database).

² Includes the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador.

³ 2004–2007 for Atlantic region.

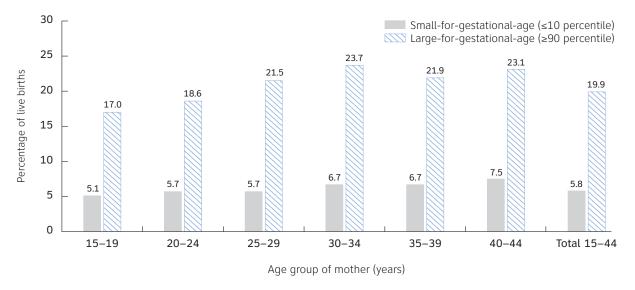
a) Age-specific fertility rates for the First Nations and general populations are an average of the live births reported from 2003 to 2007 (2004 to 2007 for Atlantic).

b) Bars represent 95% confidence intervals. If confidence interval bars do not overlap, the differences between the First Nations and general population figures are statistically significant.

3.3 BIRTH WEIGHT

The proportion of First Nations live births classified as small-for-gestational-age (SGA) increased with mother's age. Of all known live births among First Nations, 5.8% were SGA and 19.9% were large-for-gestational-age (LGA) (all age groups combined) (Figure 3).

FIGURE 3. Rates of Small-for-Gestational-Age and Large-for-Gestational-Age per 100 Live Births, by Age Group of Mother, Registered First Nations¹, 2003–2007²



¹ Includes on-reserve populations for British Columbia, Saskatchewan, Manitoba and Atlantic regions, and on- and off-reserve populations for Alberta region.

NOTE: Percentages of live births for the First Nations are an average of the live births reported in 2003 to 2007 (2004 to 2007 for Atlantic). **SOURCE:** Health Canada, First Nations and Inuit Health Branch in-house statistics, 2003–2007.

² 2004–2007 for Atlantic region.

For all age groups, the rates of LGA among live births in the First Nations population in Atlantic and Western Canada were significantly higher compared to the corresponding general population. SGA rates were lower among First Nations live births but only for the youngest age groups (15 to 29 years of age) (Table 1).

TABLE 1. Rates of Small-for-Gestational-Age and Large-for-Gestational-Age per 100 Live Births, by Age Group of Mother, Registered First Nations¹ and General Population², 2003–2007³

Age Group	Small-for-Gestational-Age Rate (≤10th Percentile)		Large-for-Gestational-Age Rate (≥90th Percentile)		
	First Nations population, (95% CI)	General population, (95% CI)	First Nations population, (95% CI)	General population, (95% CI)	
15 to 19	5.1 (4.0-6.3)	9.2 (8.5-9.9)	17.0 (15.0–19.0)	5.5 (4.9-6.0)	
20 to 24	5.7 (4.7-6.6)	9.4 (9.0-9.7)	18.6 (17.0-20.1)	5.3 (5.0-5.6)	
25 to 29	5.7 (4.5-6.8)	8.4 (8.1-8.6)	21.5 (19.5–23.6)	5.7 (5.4-5.9)	
30 to 34	6.7 (5.1–8.3)	7.8 (7.5–8.0)	23.7 (21.0-26.4)	6.2 (5.9-6.4)	
35 to 39	6.7 (4.2–9.1)	8.2 (7.8–8.7)	21.9 (17.9–26.0)	6.4 (6.1–6.8)	
40 to 44	7.5 (1.9–13.1)	9.5 (8.5–10.5)	23.1 (14.1–32.0)	6.1 (5.3-6.9)	

¹ Includes on-reserve populations for British Columbia, Saskatchewan, Manitoba and Atlantic regions, and on- and off-reserve populations for Alberta region.

NOTES:

SOURCES: Health Canada, First Nations and Inuit Health Branch in-house statistics, 2003–2007; Canadian Vital Statistics Births Database, Statistics Canada, 2003–2007.

² Includes the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador.

³ 2004–2007 for Atlantic region.

a) Small- and large-for-gestational-age rates for the First Nations and general populations are an average of the live births reported in 2003 to 2007 (2004 to 2007 for Atlantic).

b) CI refers to 95% confidence intervals. Confidence intervals that do not overlap between populations are bolded. This indicates that differences between the First Nations and general population figures are statistically significant.

4. DEATHS SECTION

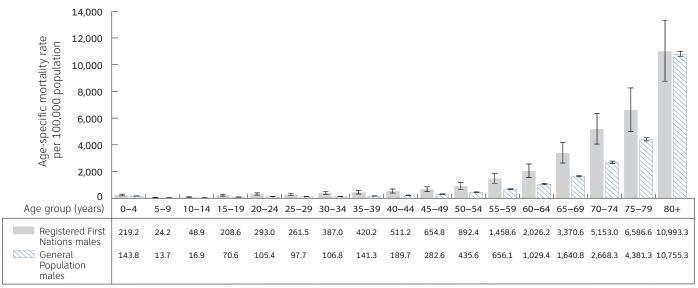
4.1 MORTALITY RATES

The 2003–2007 First Nations crude mortality rate was 4.8 per 1,000 population in Western Canada (95% CI: 4.5–5.0) compared to 7.0 (95% CI: 7.0–7.1) for the corresponding general population. However, upon age-standardization of the general population, the First Nations rate was about twice the rate for the general population (data not shown).

4.2 AGE-SPECIFIC MORTALITY RATES

In the majority of age groups, for both males and females, the age-specific mortality rates were higher for the First Nations population than for the corresponding general population in Western Canada. Exceptions were males and females under 15 years old as well as 80 years and over where there was no significant difference in rates (Figures 4 and 5).

FIGURE 4. Age-Specific Mortality Rates per 100,000 Population, for Males, Registered First Nations¹ and General Population², Western Canada, 2003–2007



¹ Includes on-reserve populations for British Columbia, Saskatchewan and Manitoba regions, and on- and off-reserve populations for Alberta.

NOTES:

- a) Age-specific mortality rates for the First Nations and general population are an average of the number of deaths for 2003 to 2007.
- b) Bars represent 95% confidence intervals. If confidence interval bars do not overlap, the differences between the First Nations and general population figures are statistically significant.

NUMERATOR SOURCES: Health Canada, First Nations and Inuit Health Branch in-house statistics, 2003–2007; Canadian Vital Statistics Births Database, Statistics Canada, 2003–2007.

DENOMINATOR SOURCES: Aboriginal Affairs and Northern Development Canada (AANDC), 2003–2007 population estimates (adjusted for the late and under-reporting of births and deaths) for the Registered Indian Population based on adjusted 2009 population counts; Statistics Canada, Intercensal and Postcensal estimates by age group and sex, Canada, provinces and territories, CANSIM (database).

² Includes the provinces for British Columbia, Alberta, Saskatchewan and Manitoba.

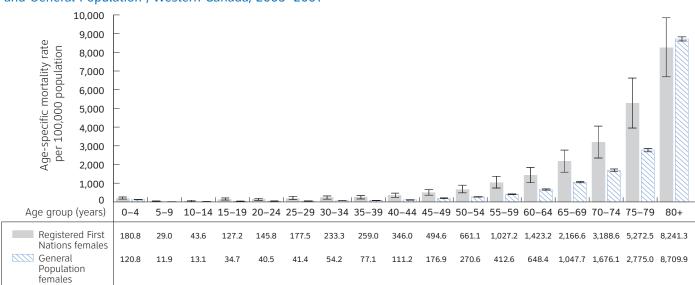


FIGURE 5. Age-Specific Mortality Rates per 100,000 Population, for Females, Registered First Nations¹ and General Population², Western Canada, 2003–2007

NOTES

- a) Age-specific mortality rates for the First Nations and general population are an average of the number of deaths for 2003 to 2007.
- b) Bars represent 95% confidence intervals. If confidence interval bars do not overlap, the differences between the First Nations and general population figures are statistically significant.

NUMERATOR SOURCES: Health Canada, First Nations and Inuit Health Branch in-house statistics, 2003–2007; Canadian Vital Statistics Births Database, Statistics Canada, 2003–2007.

DENOMINATOR SOURCES: Aboriginal Affairs and Northern Development Canada (AANDC), 2003–2007 population estimates (adjusted for the late and under-reporting of births and deaths) for the Registered Indian Population based on adjusted 2009 population counts; Statistics Canada, Intercensal and Postcensal estimates by age group and sex, Canada, provinces and territories, CANSIM (database).

4.3 RATE OF NATURAL INCREASE

For First Nations in Western Canada, the rate of natural increase was 17.5 per 1,000 population per year (95% CI: 17.0–18.1), while for the corresponding general population it was 4.4 per 1,000 population per year (95% CI: 4.4–4.5), a difference of 13.1 per 1,000 population per year (data not shown). Excluding the effects of migration, the First Nations population in Western Canada was growing 4.0 times faster than the corresponding general population.

¹ Includes on-reserve populations for British Columbia, Saskatchewan and Manitoba regions, and on- and off-reserve populations for Alberta.

² Includes the provinces for British Columbia, Alberta, Saskatchewan and Manitoba.

4.4 LEADING CAUSES OF DEATH

The leading causes of death for First Nations males and females in Western Canada were "External causes of morbidity and mortality", "Diseases of the circulatory system" and "Neoplasms". There was a significant difference between First Nations males and females for "External causes of morbidity and mortality" (Table 2). Within that category, the four leading sub-categories were accidents (total #=688), intentional self-harm (total #=328), event of undetermined intent (total #=185) and assault (total #=177) (data not shown).

TABLE 2. Leading Causes of Death (crude rates per 100,000 population), by Sex, Registered First Nations¹, Western Canada, 2003–2007

	Deaths per 100,000 Population (95% CI)				
ICD-10 Chapter (ICD-10 Chapter Number)		th sexes combined	Malaa	Famalas	
		Rank Rate Males		Females	
External causes of morbidity and mortality (XX)	1	115.9 (103.8–128.0)	154.4 (134.8–174.0)	76.4 (62.4–90.4)	
Diseases of the circulatory system (IX)	2	86.3 (75.9–96.8)	99.1 (83.4–114.8)	73.2 (59.5–86.9)	
Neoplasms (II)	3	70.0 (60.6–79.4)	70.6 (57.3–83.9)	69.3 (55.9–82.6)	
Diseases of the respiratory system (X)	4	35.8 (29.1–42.5)	36.7 (27.1–46.3)	34.9 (25.4–44.4)	
Endocrine, nutritional and metabolic diseases (IV)	5	30.7 (24.4–36.9)	31.2 (22.4–40.0)	30.1 (21.3–38.9)	
Diseases of the digestive system (XI)	6	29.6 (23.5–35.7)	29.5 (20.9–38.1)	29.7 (21.0-38.4)	
Mental and behavioural disorders (V)	7	13.8 (9.7–18.0)	16.4 (10.0–22.8)	11.2 (5.9–16.6)	
Certain infectious and parasitic diseases (I)	8	13.2 (9.1–17.3)	14.7 (8.6–20.8)	11.6 (6.2–17.1)	
Congenital malformations, deformations and chromosomal abnormalities (XVII)	9	11.1 (7.4–14.9)	11.7 (6.3–17.1)	10.6 (5.4–15.8)	
Diseases of the genitourinary system (XIV)	10	9.8 (6.2–13.3)	9.1 (4.3–13.9)	10.2 (5.1–15.3)	

¹ Includes on-reserve populations for British Columbia, Saskatchewan and Manitoba, and on- and off-reserve populations for Alberta.

NOTES:

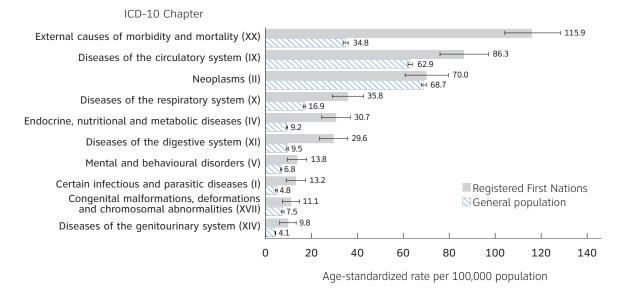
- a) Crude mortality rates for the First Nations population are an average of the death data for 2003 to 2007.
- b) Ranking is based on crude mortality rate (deaths per 100,000 population) for the entire First Nations population for 2003 to 2007, excluding deaths that have not been classified (unknown)
- c) CI refers to 95% confidence intervals. Confidence intervals which do not overlap between sexes are bolded. This indicates that the difference between the First Nations males and females is statistically significant.

NUMERATOR SOURCE: Health Canada, First Nations and Inuit Health Branch in-house statistics, 2003–2007.

DENOMINATOR SOURCE: Aboriginal Affairs and Northern Development Canada (AANDC), 2003–2007 population estimates (adjusted for the late and under-reporting of births and deaths) for the Registered Indian Population based on adjusted 2009 population counts.

Mortality rates presented in Figure 6 were statistically higher for the First Nations population than the corresponding age-standardized general population for all leading causes of death except "Neoplasms" and "Congenital malformations, deformations and chromosomal abnormalities".

FIGURE 6. Leading Causes of Death (age-standardized per 100,000 population), Both Sexes, Registered First Nations¹ and General Population², Western Canada, 2003–2007



¹ Includes on-reserve populations for British Columbia, Saskatchewan and Manitoba regions, and on- and off-reserve populations for Alberta.

NOTES:

- a) General population rates are standardized to the 2003–2007 First Nations population in Western Canada.
- b) Mortality rates for the First Nations and general populations are an average of the death data for 2003 to 2007.
- c) Ranking based on mortality rate (number of deaths per 100,000 population) of First Nations population for 2003 to 2007.
- d) Bars represent 95% confidence intervals. If confidence interval bars do not overlap, the differences between the First Nations and general population figures are statistically significant.

NUMERATOR SOURCES: Health Canada, First Nations and Inuit Health Branch in-house statistics, 2003–2007; Canadian Vital Statistics Births Database, Statistics Canada, 2003–2007.

DENOMINATOR SOURCES: Aboriginal Affairs and Northern Development Canada (AANDC), 2003–2007 population estimates (adjusted for the late and under-reporting of births and deaths) for the Registered Indian Population based on adjusted 2009 population counts; Statistics Canada, Intercensal and Postcensal estimates by age group and sex, Canada, provinces and territories, CANSIM (database).

² Includes the provinces for British Columbia, Alberta, Saskatchewan and Manitoba.

4.5 SUICIDE DATA¹

During 2003–2007, the crude First Nations suicide rate was 30.4 deaths per 100,000 (95% CI: 23.7–37.0), a rate that is more than three times higher than the age-standardized general population's rate. Data showed that deaths due to suicide as a proportion of total deaths was largest among First Nations aged 10 and 24 years (data not shown). Specifically, in 2003–2007, suicide accounted for 28.9% of deaths among 10–14 year olds, 30.1% of deaths among 15–19 year olds, and 23.6% of deaths among 20–24 year olds. In addition, suicide accounted for 13.4% of deaths in adults aged 25 to 44 years. Within the First Nations population, these data showed that males are at higher risk than females. The First Nations male suicide rate (39.3 deaths per 100,000 population, 95% CI: 28.7–49.9) was almost twice that of the female rate (21.2 deaths per 100,000, 95% CI: 13.3–29.2). In examining annual data, suicide rates between 2003 and 2007 remained stable over time (data not shown).

4.6 POTENTIAL YEARS OF LIFE LOST (PYLL)

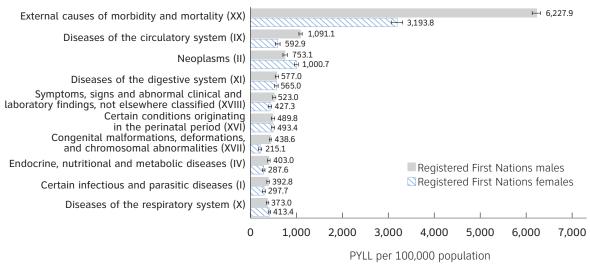
The leading cause of PYLL for both First Nations males and females was "External causes of morbidity and mortality". The potential years of life lost for this category was almost two times higher for males than females and accounted for the majority of the excess overall PYLL in males. For males, the second leading cause of PYLL was "Diseases of circulatory system", while for females it was "Neoplasms" which was 1.3 times higher than males (Figure 7).

In 2003–2007, suicide accounted for 1,908.9 PYLL per 1,000 First Nations in Western Canada for both males and females, representing greater premature mortality than either circulatory diseases or cancers (data not shown). Suicide contributed to a higher rate of potential years of life lost among First Nations males (2,441.0 per 1,000 population) as compared to First Nations females (1,360.8 per 1,000 population) (data not shown).

¹ The ICD-10 codes corresponding to suicide were: X60-X84, and Y87.0. www.apheo.ca/index.php?pid=160

FIGURE 7. Potential Years of Life Lost (PYLL) per 100,000 Population, by Sex and Cause of Death, Registered First Nations¹, Western Canada, 2003–2007





¹ Includes on-reserve populations for British Columbia, Saskatchewan and Manitoba regions, and on- and off-reserve populations for Alberta.

NOTES:

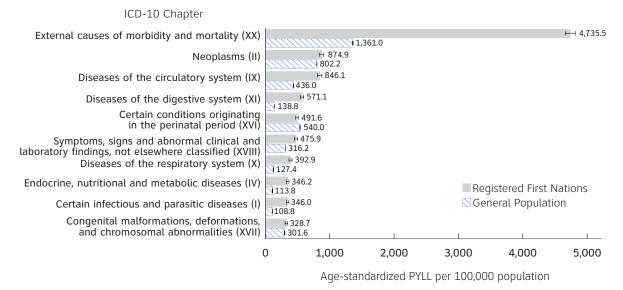
- a) PYLL has been derived based on average number of deaths for 2003 to 2007.
- b) Bars represent 95% confidence intervals. If confidence interval bars do not overlap, the differences between the First Nations males and females are statistically significant.

NUMERATOR SOURCE: Health Canada, First Nations and Inuit Health Branch in-house statistics, 2003–2007.

DENOMINATOR SOURCE: Aboriginal Affairs and Northern Development Canada (AANDC), 2003–2007 population estimates (adjusted for the late and under-reporting of births and deaths) for the Registered Indian Population based on adjusted 2009 population counts.

PYLL was higher for the First Nations population than for the corresponding age-standardized general population in Western Canada for all leading causes of death except "Certain conditions originating in the perinatal period" (Figure 8).

FIGURE 8. Age-standardized Potential Years of Life Lost (PYLL) per 100,000 Population by Cause of Death, Registered First Nations¹ and General Population², Western Canada, 2003–2007



¹ Includes on-reserve populations for British Columbia, Saskatchewan and Manitoba, and on- and off-reserve populations for Alberta.

NOTES

- a) PYLL has been derived based on average number of deaths for 2003 to 2007.
- b) Bars represent 95% confidence intervals. If confidence interval bars do not overlap, the differences between the First Nations and general population figures are statistically significant.
- c) The general population is age-standardized to the First Nations age distribution.

NUMERATOR SOURCES: Health Canada, First Nations and Inuit Health Branch in-house statistics, 2003–2007; Canadian Vital Statistics Births Database, Statistics Canada, 2003–2007.

DENOMINATOR SOURCES: Aboriginal Affairs and Northern Development Canada (AANDC), 2003–2007 population estimates (adjusted for the late and under-reporting of births and deaths) for the Registered Indian Population based on adjusted 2009 population counts; Statistics Canada, Intercensal and Postcensal estimates by age group and sex, Canada, provinces and territories, CANSIM (database).

² Includes the provinces for British Columbia, Alberta, Saskatchewan and Manitoba.

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