



The Health Status of Canadians

Good health enables individuals to lead productive and fulfilling lives. For Canada as a whole, a high level of health contributes to increased prosperity and overall social stability.

— *Report on the Health of Canadians, 1996.*

This chapter focuses on three related questions: “How healthy are Canadians?”, “Is the health of Canadians improving?” and “Who is healthy and who is not?” The answers to these questions will help focus our efforts to improve the well-being of all Canadians.

For the most part, Canadians enjoy a high level of health on virtually all measures of health. Positive health status and improvements in health, however, are not shared equally by all Canadians. This chapter shows that age and gender influence health status in a number of ways. It also shows that income and health status are closely related on nearly all measures of health.

This chapter uses a broad range of health indices or measures to describe the health of Canadians. All of these — with the exception of the United Nations Human Development Index — are measures of individual health status. Future reporting on the status of health among the Canadian population as a whole would benefit from additional collective indices based on sound methodologies and a combination of a number of measures.

Definitions and Measures

- ◆ **Self-rated health** describes how individual Canadians experience and assess their own physical and mental health.
- ◆ **Psychological well-being** includes three measures: Sense of coherence is a perception that life is meaningful, challenges are manageable and life events are comprehensible. Self-esteem refers to an individual's sense of self-worth and mastery describes the extent to which people believe that their life chances are under their control.
- ◆ **Selected diseases and conditions** looks at the incidence and prevalence of selected diseases and health conditions over time.
- ◆ **Disability days** measures how often health problems forced an individual to cut down on regular activities (at work, school or home) for the better part of a day in the preceding two weeks.
- ◆ **Activity limitation** measures the degree to which an individual is limited in performing their normal activities at work, home or school due to a long-term (more than six months) disability or health problem.
- ◆ **Major causes of death** reports on the principal causes of death.
- ◆ **Infant mortality** refers to the death of a live born infant within the first year of life. **Perinatal deaths** are the combination of stillbirths and early neonatal deaths (deaths within the first seven days of life).
- ◆ **Life expectancy at birth** measures the number of years a Canadian baby born today can expect to live, based on current mortality data.
- ◆ **Potential years of life lost** describes the number of potential years lost when a death occurs prior to the age of 70.
- ◆ **Human Development Index** is a composite measure used by the United Nations to compare the progress of various countries on human development. It measures life expectancy, educational attainment and adjusted income. Three additional measures — the Human Poverty Index, the Gender-Related Development Index and the Gender Empowerment Measure — were added in the 1998 United Nations report. These are explained later in this chapter.

Highlights

Many Canadians enjoy a high level of health that continues to improve.

Self-rated health: Sixty-three percent of adult Canadians say that their health is excellent or very good and only 9% rate their health as fair or poor. These rates, which have been stable since 1985, represent one of the highest levels of self-rated health among citizens of developed countries.

Infant mortality: In 1996, Canada's infant mortality rate (5.6 per 1,000 live births) dropped below the level of six infant deaths per 1,000 live births for the first time. While this is an important achievement, it is still quite far above the infant mortality rate of Japan, which is the lowest in the world (3.8 deaths per 1,000 live births).

Life expectancy: Based on current mortality patterns, a Canadian child born in 1996 can expect to live to the age of 78.6 (males 75.7, females 81.4). This life expectancy represents a new high in Canada, and is one of the highest in the industrialized world, behind only Switzerland and Japan (of the 12 OECD countries reporting this information).

Gender and age have varying effects on health status.

- ◆ Men are far more likely than women to die before age 70, mainly because of gender differences in deaths due to heart disease, cancer, suicide and unintentional injuries. Rates of potential years of life lost are almost twice as high for men than women and approximately three times higher among men aged 20 to 34.
- ◆ While women live longer than men, they are more likely to suffer from long-term activity limitations and chronic conditions such as osteoporosis, arthritis and migraine headaches.
- ◆ While older Canadians are far more likely than young Canadians to have physical illnesses and conditions, youth (aged 12 to 19) report the lowest levels of psychological well-being. Young women are particularly likely to report feeling depressed.
- ◆ Suicide rates among young men are high in Canada, compared to other countries. Suicides among Aboriginal groups (especially Inuit) have been reported to be two to seven times more frequent than in the population at large.
- ◆ While unintentional injuries among children have decreased over time, they are still the leading cause of death among children and youth. They are also a significant cause of disability in children and young people. Boys and young men tend to experience more unintentional injuries and more severe injuries than girls and young women.

Canadians with low incomes are more likely to suffer illnesses and to die early than Canadians with high incomes.

- ◆ Only 47% of Canadians at the lowest income level rate their health as excellent or very good, compared with 73% of Canadians in the highest income group.
- ◆ Low-income Canadians are more likely to die earlier and to suffer more illnesses than Canadians with high incomes. It is estimated that if the death rates of the highest income earners applied to all Canadians, more than one-fifth of all years of life lost before age 65 could be prevented.

Inequities in income distribution and literacy downgrade Canada's rank from first in the world to tenth on the United Nations Human Development Index.

- ◆ The 1998 United Nations Human Development Report ranked Canada best in the world (among 174 countries) in terms of human development as measured by life expectancy, educational attainment and adjusted income.
- ◆ This standing dropped to tenth place when the Human Poverty Index for industrialized countries (which takes into account literacy, unemployment, percentage of people living below the poverty line and the percentage of people not expected to live past age 60) was applied. The UN Report suggests that this drop is because "Canada has significant problems of poverty and their progress in human development has not been evenly distributed."

Canada's Aboriginal people are at higher risk for poor health and early death than the Canadian population as a whole.

- ◆ Despite major improvements since 1979, infant mortality rates among First Nations people are still twice as high as that of the Canadian population as a whole.
- ◆ Life expectancy is significantly lower among Aboriginal people than for the overall Canadian population. High rates of suicide and fatal unintentional injuries among First Nations and Inuit young people partly account for this difference.
- ◆ The prevalence of all major chronic diseases, including diabetes, heart problems, cancer, hypertension and arthritis/rheumatism is significantly higher in Aboriginal communities than in the general population and appears to be increasing.

Self-Rated Health

Self-rated health status has been shown to be a reliable predictor of health problems, health-care utilization and longevity.¹ In the 1996–97 NPHS, one-quarter of Canadians aged 12 and over described their health as excellent, and more than one-third rated it as very good. Less than one in ten Canadians described their health as fair or poor. Women were slightly less likely to rate their health as excellent or very good (62%) than men (65%). Fair or poor self-rated health status increased with each successive age group, from 2% of 12- to 14-year-olds to 27% of Canadians over age 75.²

Exhibit 1.1 shows a definite gradient in self-rated health that is strongly linked to income. Among adult Canadians in the lowest income brackets, 47% rated their health as excellent or very good and 21% described their health as fair or poor.

Among Canadians with the highest income levels, 73% described their health as excellent or very good, while only 5% rated their health as fair or poor. Canadians who lived in the lowest income households were four times more likely to report fair or poor health than those who lived in the highest income households.

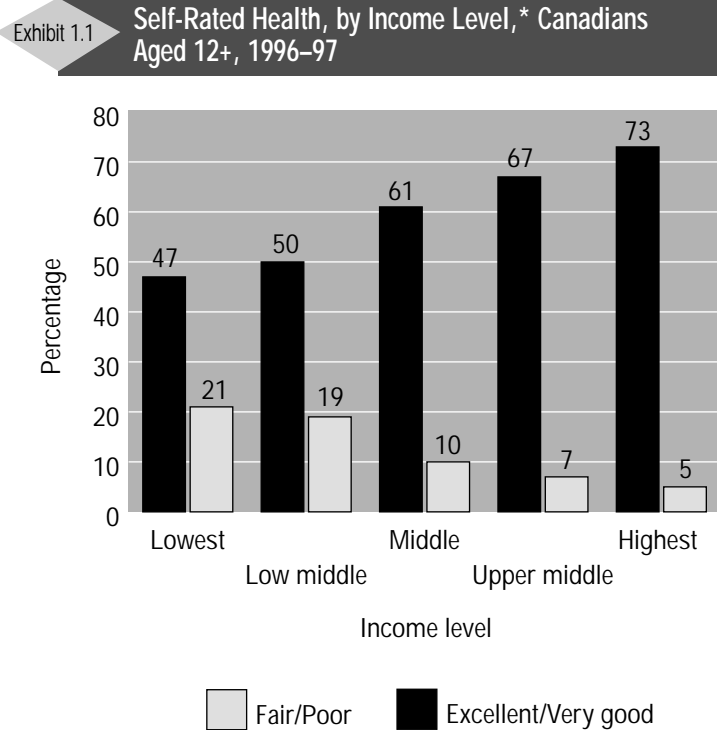
There were substantial provincial differences in self-rated health. Only 17% of Saskatchewan residents viewed their health as excellent, compared with 27% of people living in Quebec. Nova Scotians were most likely to see their health as fair or poor (10%), while residents of Newfoundland (7%) and Quebec (8%) were least likely to rate their health as fair or poor.

Psychological Well-Being³

In the 1994–95 National Population Health Survey (NPHS), sense of coherence, self-esteem and mastery scores were based on a series of standardized interview questions. “High,” “adequate” and “low” scores were based on peaks in the distribution of scores. This allows for inter-group comparisons, but negates the meaningfulness of statements about absolute levels of psychological well-being.

In 1994–95, some 28% of Canadians had a high sense of coherence (a view of the world that life is meaningful, events are comprehensible and challenges are manageable). Forty-nine percent had high self-esteem and 21% had a high sense of mastery (the extent to which individuals feel that their life chances are under their own control). As this was the first time these questions were asked in a national health survey, no time trends or comparisons to other countries can be provided. But, within Canada, there are pronounced variations in these measures among different age groups.

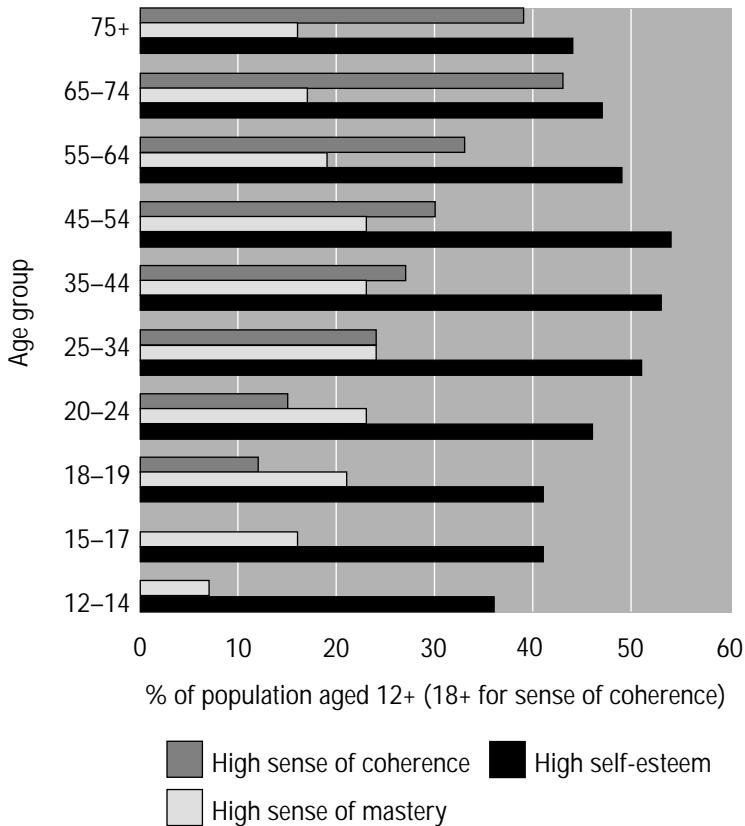
In contrast to the high levels of physical health usually found among youth, psychological well-being is, on average, lowest among the youngest age groups. Sense of coherence increased with age: seniors over age 75 were three times more likely than



* Income levels in this figure and those to follow that are based on the NPHS represent total household incomes before taxes and are adjusted for family size and age-standardized.

Source: Statistics Canada. *National Population Health Survey, 1996–97*.

Exhibit 1.2 Three Indicators of Psychological Well-Being, by Age Group, Canada, 1994–95



Source: Statistics Canada. *National Population Health Survey, 1994–95*.

18- and 19-year-olds to score high on sense of coherence. As Exhibit 1.2 shows, self-esteem and mastery improve with age to a peak in middle adulthood, followed by a modest decline in later years.

These age-related patterns are consistent with measures of poor psychological health such as depression, which declines with age (discussed later). This positive association between psychological well-being and age is a reversal from that experienced a generation ago, when seniors were more likely than younger Canadians to be depressed.⁴

Males were slightly more likely than females to report a high sense of mastery, but the difference was small for this attribute and almost nonexistent for the other two. The lack of differences in reported self-esteem between young men and women is surprising, since many other studies have concluded that young women have lower levels of self-esteem than young men.⁵

As Exhibit 1.3 shows, all three measures of psychological well-being were positively linked to income level. Self-esteem and mastery were also positively related to level of education.

Exhibit 1.3 Percentage of Canadians Reporting Low Self-Esteem, Low Sense of Mastery and Low Sense of Coherence, by Income Level, 1994–95

Income level	Low self-esteem	Low sense of mastery	Low sense of coherence
Lowest	18%	31%	47%
Middle	13%	22%	33%
Highest	10%	12%	26%

Source: Statistics Canada. *National Population Health Survey, 1994–95*.

Selected Diseases and Conditions

Chronic Diseases

A comparison of the 1994–95 and 1996–97 National Population Health surveys revealed that the major self-reported chronic diseases with the highest number of new cases were non-arthritic back problems and arthritis/rheumatism. Women reported higher incidence rates than men for most chronic diseases, although in some cases these differences were not statistically significant.

In the 1994–95 NPHS, 81% of all people over age 65 and living in private households reported that they had at least one chronic condition. Arthritis and rheumatism were the most common chronic health problems reported. Three percent of Canadians aged 12 and over reported having diabetes that had been diagnosed by a health professional. For Canadians over age 65, the rate was just above 10%. While there were no substantial differences in the prevalence of diabetes between the sexes or between urban and rural residents, it was significantly higher among Canadians with low incomes.⁶

According to a recent article by Young and colleagues, the prevalence of all self-reported major chronic diseases was significantly higher in Aboriginal communities than in the general population, and appears to be increasing (Exhibit 1.4).⁷ For example, the rate of diabetes among First Nations and Inuit men was 3 times the rate for all Canadian men; for First Nations and Inuit women, the diabetes rate was 5 times the rate for all Canadian women.

In 1994–95, chronic conditions were less common among immigrants (50%) than among the Canadian-born population (57%). Recent non-European immigrants had a particularly low prevalence of chronic conditions (37%), but as their duration of stay in Canada increased, so did the prevalence of chronic conditions. Fifty-one percent of long-term non-European immigrants reported at least one chronic condition.⁸

Exhibit 1.4

First Nations/Canada Ratio of Age-Adjusted Prevalence for Selected Chronic Diseases, 1997

Disease	Ratio: Men	Ratio: Women
Diabetes	3:1	5:1
Heart problems	3:1	3:1
Cancer	2:1	2:1
Hypertension	3:1	3:1
Arthritis/rheumatism	2:1	2:1

Source: *First Nations and Inuit Regional Health Survey, 1997.*

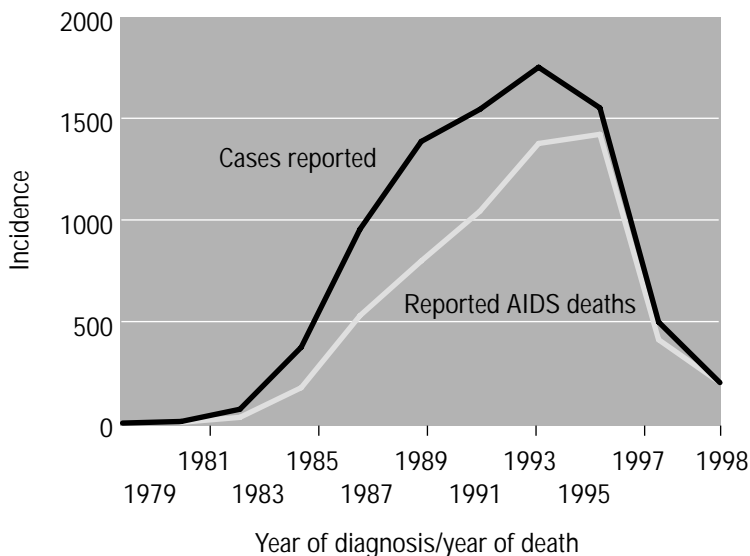
This finding is likely due to a number of factors. First, Canada's immigration policies tend to favour immigrants who are in good health. Second, many immigrants and refugees are young when they arrive. The reasons why the prevalence of chronic conditions increases the longer they stay in Canada is less well understood. The normal aging process is clearly a factor. Also, after arrival, the adoption of unhealthy lifestyle practices such as smoking (which is more common among certain groups in Canada than in other countries) may also be a factor.⁹

Depression¹⁰

The 1996–97 NPHS showed that some 6% of Canadians aged 12 and over were at possible or probable risk of depression. Although the rates of depression reported by women (8%) were slightly higher than those reported by men (5%), the rates for both men and women were lower than in 1994–95. Young women aged 15 to 19 were the most likely of any age-sex group to exhibit signs of depression (8% to 9%). For both males and females, depression was more likely to occur in the younger years (especially at ages 18 and 19).

For both men and women, the risk of depression was highest among those with the lowest incomes. Thirteen percent of women in the lowest income group were at risk of depression, compared with 5% of women in the highest income group. For men, the rate of depression ranged from 11% among those in the lowest income bracket to 4% among men with high incomes.

Exhibit 1.5 Reported AIDS Cases and Reported AIDS Deaths in Canada, 1979 to 1998



Source: Bureau of HIV/AIDS, STD and TB, LCDC, December 1998.

HIV and AIDS

As of June 30, 1998, a total of 15,935 cumulative AIDS cases had been reported in Canada; however, because of reporting delays the true figure was likely to be about 20,000. Almost three-quarters of reported AIDS cases (more than 11,000 persons) had died by this date. Since 1995, there has been a dramatic decline in the annual number of reported AIDS cases and in the number of reported AIDS deaths (Exhibit 1.5). This may be due, at least in part, to new anti-retroviral treatments that delay the onset of AIDS and help people with AIDS live longer.¹¹

Males outnumber females by 14 to 1 in both number of reported cases and death, but this ratio is beginning to change. Prior to 1995, women comprised only of 6% of all adult cases; by 1997, the percentage had risen to 13%.¹²

Exhibit 1.6 shows the estimated number of new HIV infections occurring each year in Canada. The method of back-calculation from AIDS cases was used from 1975 to 1989, but not for subsequent years because of new treatments that delay the development of AIDS and the long interval between HIV infection and AIDS. After 1989, other methods were used to estimate the average number of annual HIV infections for the years 1989 to 1994 as a whole (shown as a block in Exhibit 1.6) and for the year 1996. There were an estimated 4,200 new HIV infections in Canada in 1996. This is lower than the estimated peak in annual HIV infections of 5,000 or more that occurred in the mid-1980s, but is higher than the estimate of 2,500 to 3,000 per year for the period 1989 to 1994. The majority of the recent increase in HIV infections appears to be occurring among injection drug users who now represent half of all new infections. (See Chapter 5 for more information.) Furthermore, available data suggest increasing HIV infection rates among Aboriginal persons and women.¹³

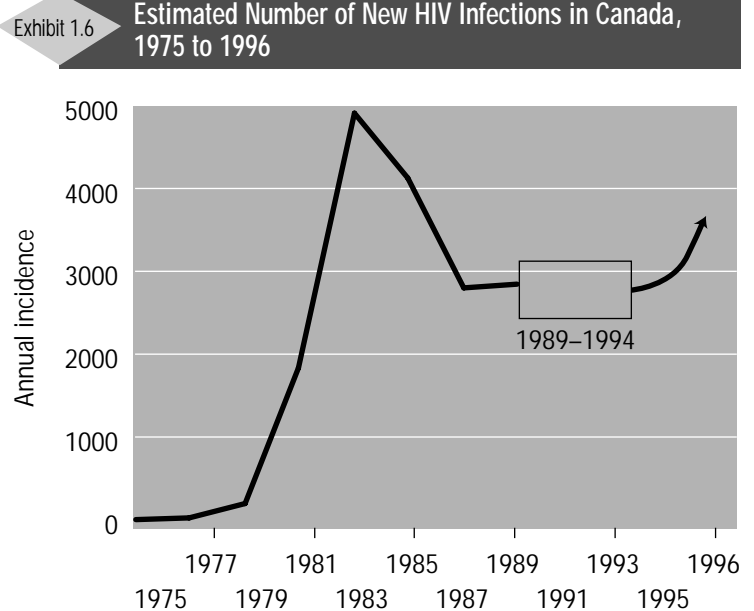
Those who present for HIV testing and test positive represent only a portion of the population with HIV infection. At the end of 1996, Health Canada determined that of the estimated 40,000 Canadians living with HIV, some 11,000 to 17,000 people were still unaware of their infection.¹⁴

Injuries

In 1995–96, there were 217,000 hospital admissions due to injury. By far, the highest rates of hospital admissions due to injuries were among senior Canadians over the age of 65 (235 per 10,000 population among senior women and 152 per 10,000 population among senior men). The rate of hospital admission due to injury was much lower among people under the age of 45. In this age group, males accounted for 69% of all injury admissions.¹⁵

The vast majority of injuries are unintentional — nearly two out of three hospital admissions due to injury are the result of falls and motor vehicle crashes. Injuries intentionally inflicted by another person accounted for 5% of all hospital admissions due to injury, while self-inflicted injuries accounted for approximately 2% of injury admissions.¹⁶

While the rate of injury due to falls is particularly high among Canadians over the age of 60, falls remained an important cause of injury among children under the age of 11, and youth aged 11 to 20. Among children, the next most important cause of injury-related admission to hospital in 1996 was poisoning. For adolescents and adults under the age of 60, the second most important cause was motor vehicle crashes.¹⁷



Source: Bureau of HIV/AIDS, STD and TB, LCDC, July 1997.

Disability and Activity Limitations¹⁸

As Exhibit 1.7 shows, between the 1994–95 and 1996–97 cycles of the NPHS, there was a decrease in the percentage of Canadian women and men who reported one or more disability days during a two-week period, and who reported a continuing health condition that limited their normal activities at home, school or work. Exhibit 1.7 shows a particularly impressive decrease in activity limitations between the two surveys. Most of the improvements were among Canadians over age 55. Women were more likely than

men to report both disability days and long-term activity limitations.

According to the NPHS, and as shown in Exhibit 1.8, Canadians who have activity limitations were also more likely to have low incomes. Among men in the lowest income group, 32% reported an activity limitation, compared with 12% of men in the highest income bracket. Among women, the rate of reported activity limitations ranged from 28% in the lowest income group to 16% in the highest income group. The relationship between income and disability is not yet clear. Do activity limitations and disabilities lead to low-income status or does low-income status lead to disabilities? While both factors are likely at play, this is an important area for further investigation.

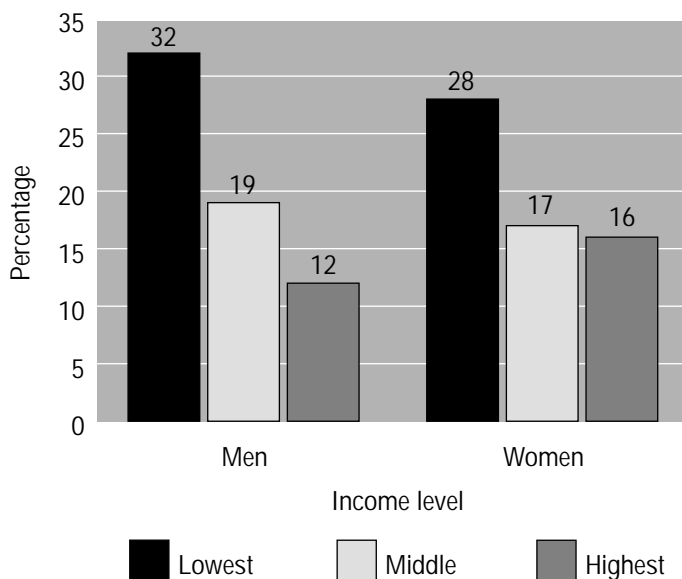
Overall, immigrants to Canada were less likely than the Canadian-born population to have any long-term disability. However, the relationships between gender, socioeconomic status and disability hold true for immigrants as well. Disability was more strongly related to low household incomes and to being a woman than to immigrant status.¹⁹

Exhibit 1.7
Percentage of Men and Women Reporting Disability Days and Activity Limitations, Aged 12+, 1994–95 and 1996–97

	1994–95	1996–97
Disability days		
◆ Men	13%	12%
◆ Women	17%	14%
Activity limitations		
◆ Men	20%	15%
◆ Women	21%	17%

Source: Statistics Canada. *National Population Health Survey, 1994–95 and 1996–97.*

Exhibit 1.8
Percentage of Canadian Men and Women Reporting Activity Limitation or Handicap, by Income Level, Aged 12+, Canada, 1996–97



Source: Statistics Canada, *National Population Health Survey, 1996–97.*

Major Causes of Death

In Canada, death rates for most of the major causes have declined since 1970, particularly in the case of coronary heart disease. The exception to this is the cancer death rate which continued to increase until the mid 1980s and then declined steadily among men and stabilized in women.

Cardiovascular Disease

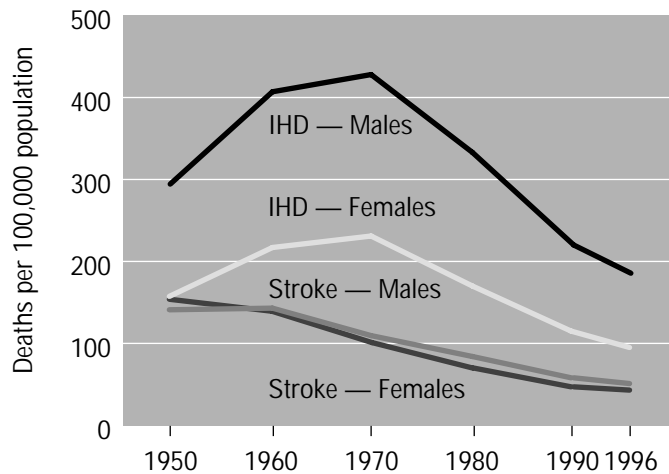
Cardiovascular disease is the major cause of death in Canada. The two major components of cardiovascular disease are ischemic heart disease, including acute myocardial infarction or heart attack, and cerebrovascular disease and stroke. In 1996, cardiovascular disease accounted for 37% of all deaths in Canada. While more men than women died of ischemic heart disease (22% versus 19%), more women died of stroke (9% versus 6%).²⁰

As Exhibit 1.9 shows, deaths from cardiovascular disease have been declining in Canada since 1970 among both men and women, although more slowly in women. Canada has one of the lowest rates of cardiovascular disease mortality among all developed countries.²¹

The Atlantic provinces have had consistently higher mortality rates than the western provinces for cardiovascular disease. Provincial prevalence rates of smoking, high blood pressure and obesity run parallel to the rates for cardiovascular disease.²²

Exhibit 1.9

Death Rates Due to Ischemic Heart Disease and Stroke, Canada, 1950 to 1996*



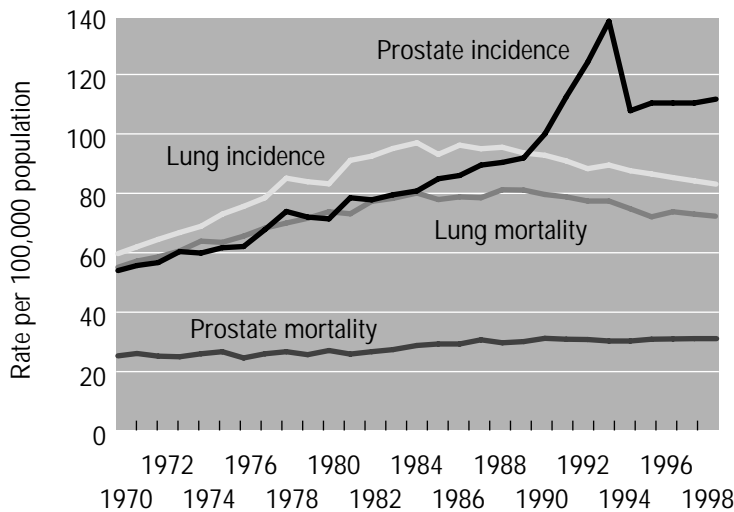
*Age-standardized to the 1991 Canadian population.

Source: Statistics Canada, Health Statistics Division. *Health Indicators, 1999* (Statistics Canada Cat. No. 82-221-XCB).

Cancer²³

Cancer in its many forms is the second leading cause of death and the leading cause of potential years of life lost before age 70. Among men, declining rates for most forms of cancer were offset by dramatic increases in the detection of (but not mortality from) prostate cancer, primarily due to the introduction of PSA testing. The incidence of new cancer diagnoses in women has remained relatively stable since the early 1980s. Cancer death rates have declined slowly for men since 1990, while they have remained relatively stable among women over the same period.

Exhibit 1.10 Incidence and Mortality Rates for Selected Cancer Sites, Age-Standardized, Males, Canada, 1970 to 1998*



* Incidence rates from 1994 to 1998 are estimated. Mortality rates from 1996 to 1998 are estimated.

Source: National Cancer Institute of Canada. *Canadian Cancer Statistics 1998*.

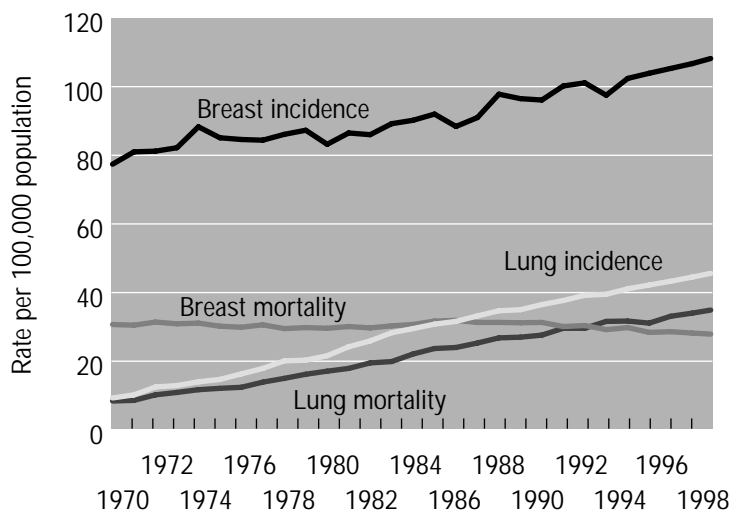
As Exhibit 1.10 shows, the incidence of prostate cancer was the highest among new cancers in men. The 1993 peak of new cases of prostate cancer was due to the introduction of PSA testing. At the same time, death rates from this type of cancer have remained relatively stable. Since prostate cancer is most often detected in old age and is a slow growing cancer, many men who are diagnosed with prostate cancer die of other causes.

The number of new cases of lung cancer has declined among men since the 1980s, likely due to a decline in male smoking rates over the past 30 years. However, lung cancer death rates still far exceed death rates due to prostate cancer.

As Exhibit 1.11 shows, the incidence of both breast and lung cancer have been increasing among women since the 1970s. Breast cancer was estimated to be the most common newly diagnosed cancer in 1998; however, the leading cause of cancer death was still predicted to be lung cancer.

Thus, while cancer remains a serious problem, we are beginning to see signs that prevention and control strategies are working for a number of different cancer sites. These favourable results are obscured, however, by continuing increases in lung cancer incidence and mortality among women (largely as a result of increased smoking) and the recent transient surge in prostate cancer incidence (but not mortality) in males.

Exhibit 1.11 Incidence and Mortality Rates for Selected Cancer Sites, Age-Standardized, Females, Canada, 1970 to 1998*



* Incidence rates from 1994 to 1998 are estimated. Mortality rates from 1996 to 1998 are estimated.

Source: National Cancer Institute of Canada. *Canadian Cancer Statistics 1998*.

Time will tell whether the early detection of prostate cancer affects the mortality rate.

Provincial differences in cancer incidence and deaths are rather marked. Nova Scotia has the highest male age-standardized incidence and death rates, due largely to higher lung cancer rates than the Canadian average. Among women, the highest new case incidence rate is also in Nova Scotia; the highest death rates are in Nova Scotia and Prince Edward Island.

Unintentional Injuries

Unintentional injuries are the third most important cause of death overall, accounting for 8,663 deaths (29 per 100,000 population) in 1996. However, they remain the leading cause of death among Canadians age 1 to 44, and as such are a major contributor to potential years of life lost. Although many sources persist in referring to such events as “accidents,” it is estimated that 90% of deaths due to unintentional injuries are preventable. And, despite a 50% reduction in such deaths among children between 1970 and 1991, unintentional injuries remain the major cause of death among children and youth.²⁴

Injuries and poisonings are the number one cause of death in the First Nations population (crude rate 154 per 100,000 population). In 1993, the age-standardized injury rate for First Nations persons was 3.8 times higher than that for Canadians in general. Native children and youth have much higher death rates due to injury than do other Canadians. For Aboriginal infants, the rate of death is almost four times greater; for preschoolers, it is five times higher; and among teenagers, the injury-related death rate is three times higher.²⁵

Overall, motor vehicle crashes are the major cause of deaths due to unintentional injury. In 1994, they accounted for 38% of deaths, followed by falls (31%), poisonings (9%), drownings and suffocation (5%) and fires (4%). Motor vehicle crashes are a particularly important cause of injury and death among children and youth. However, due in part to increases in seatbelt usage and reductions in impaired driving, the number of deaths due to motor vehicle traffic crashes has declined impressively in recent years — from 5,253 in 1977 to 3,082 in 1996.²⁶ Falls remain an especially important cause of death among the elderly, accounting for nearly three out of every four deaths due to unintentional injury among Canadians over the age of 70.²⁷

Suicide

Suicide is a tragic event and an important cause of potential years of life lost. In 1996, there were 3,941 suicides in Canada — almost 11 per day.²⁸ Trends and rates associated with suicide need to be interpreted with caution, however, since official statistics tend to under-report suicide. In addition, changes over time may reflect differences in the official reporting and certification of suicide deaths.

There are dramatic sex and age differences in suicide rates. In 1996, males were four times more likely than females to commit suicide. The highest rate for male suicides was among men aged 20 to 24 (29 per 100,000 population) and 35 to 44 (30 per 100,000 population). For women, the highest rate of suicide was among those aged 45 to 54 (10 per 100,000 population).²⁹

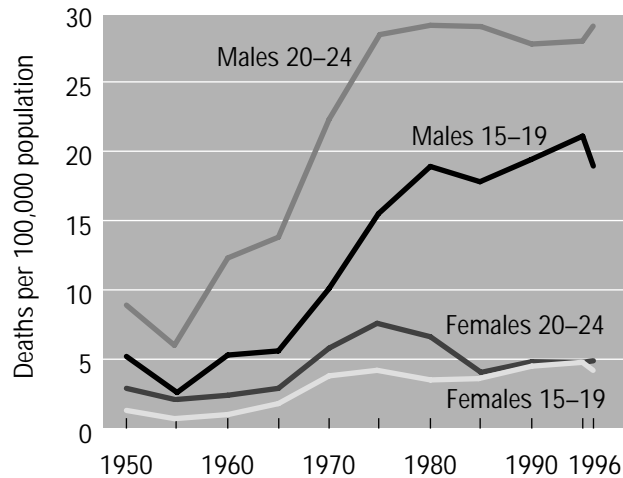
Young men's suicide attempts are far more likely to have a fatal outcome than young women's. The reasons for this are not clear, but presumably relate to male–female differences in reaching out for help, the nature of underlying problems, learned responses to stress and the use of lethal methods (such as firearms and hanging) by young men.

Women attempt suicide more often than men, but the ratio is a subject of debate due to wide variations in how the data are gathered. The population of attempters is large and heterogeneous and may differ in important ways from that of suicide completers. For example, most attempters will not ultimately die from suicide, though they may try repeatedly; and many people who die by suicide have not made a previous attempt.³⁰ It is

likely that more suicidal acts committed by women are intended as non-fatal, as compared to those by men.³¹

Compared with other countries, Canada's rates of youth suicide are high. In 1973, Canada was the only country among 21 western countries in which the suicide rate for male youth aged 15 to 24 equalled or exceeded the rate for the general population of males. By 1987, only four other countries shared this pattern.³² Between 1991 and 1993, the suicide rate for Canadian male youth was exceeded only in Australia and the Russian Federation (among 10 industrialized countries); the female rate was higher than that of all other countries except Sweden and the Russian Federation.³³

Exhibit 1.12 Suicide Rates for Youth Aged 15–19 and 20–24, Canada, 1950 to 1996



Source: Statistics Canada, Health Statistics Division. *Health Indicators, 1996* and unpublished tabulations.

As Exhibit 1.12 shows, there has been a steady and significant increase in suicide rates among young men aged 15 to 24 since 1950. The 1996 rate of 18.5 per 100,000 among 15- to 19-year-old males was almost twice as high as the 1970 rate. Suicide rates among young men aged 20 to 24 were even higher. These rates reached a peak in the early 1980s and have fluctuated around this level ever since. In 1996, the male suicide rate for this age group was 29 per 100,000. During the 1990s, there has been an average of almost 39 suicides per year by children aged 10 to 14 (mostly boys), up from the average of 27 per year during the 1980s.³⁴

Suicide among Aboriginal groups in Canada has been reported to be two to seven times more frequent than in the population at large. In the Northwest Territories (NWT) and Nunavut combined, considerable attention has focused on an apparent increase in the occurrence of suicide in a number of communities. In 1992, the annual age-standardized suicide rate for the NWT and Nunavut combined was estimated at 23 per 100,000 population compared with 13 per 100,000 for Canada as a whole.³⁵

In Nunavut, Inuit people represent the majority of the population. A comprehensive study conducted in 1997 on suicide in the NWT and Nunavut combined found that in a comparison of ethnic groups, the highest rate of suicide occurred among the Inuit, at 79 per 100,000, compared with 29 per 100,000 for the Dene and 15 per 100,000 for all other ethnic groups, comprised primarily of non-Aboriginal persons. A comparison of three five-year time periods between 1982 and 1996 revealed increasing rates of suicide, particularly for Nunavut. Young Inuit males were the most likely group to commit

suicide. Thirty-six percent of those who committed suicide had experienced a recent family or relationship break-up and 21% were facing criminal proceedings. Understanding these and other reported circumstances on the risk of suicide requires further investigation.³⁶

Other groups at high risk of suicide include people who suffer from depression and people with substance abuse problems. Studies show that gay men, lesbians and people who have experienced child sexual abuse may also be at higher risk.³⁷

Homicide

There were 581 homicides reported in Canada in 1997 — a decline of 9% from 1996. This continues a steady decline in the homicide rate in Canada. Following rapid increases in the late 1960s and early 1970s, the rate of homicide in Canada in 1997 reached its lowest point since 1969. Males accounted for nearly two-thirds (64%) of all homicide victims and 84% of accused persons.³⁸

Canada's 1997 homicide rate of 1.92 per 100,000 was less than one-third that of the United States (6.70), but higher than that of most European countries, including England and Wales (1.00) and France (1.66).

There were 193 homicides committed with firearms in 1997, 19 fewer than in 1996. Despite this drop, firearms continue to be used in about one out of three homicides.³⁹

Infant Mortality

In 1996, infant mortality rates fell below 6 per 1,000 live births for the first time.⁴⁰ While this is an important achievement, it is still quite far above the infant mortality rate of Japan, which is the lowest in the world (3.8 deaths per 1,000 live births).⁴¹

Perinatal complications were the most important single cause of both infant mortality and perinatal death.⁴² There are substantial differences in infant mortality rates among the various income groups in Canada. Although rates among First Nations people have fallen dramatically since 1979, the 1994 infant mortality rate was twice as high among First Nations people than in the Canadian population as a whole.⁴³ These findings are explored in more detail in Chapter 3 on Healthy Child Development.

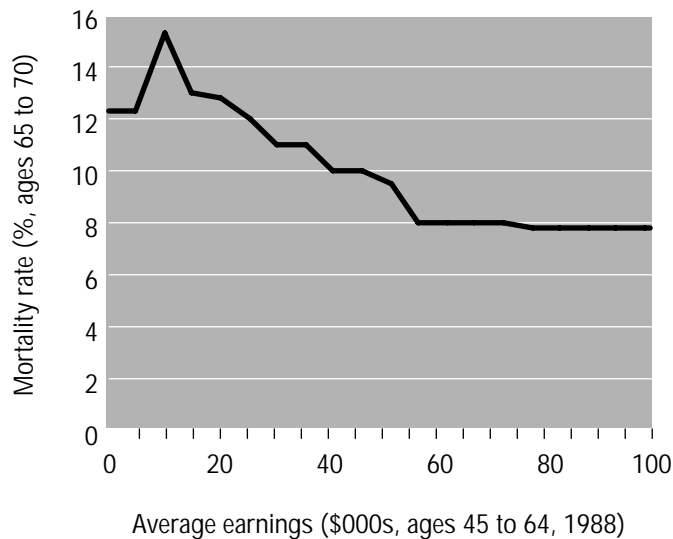
Deaths Attributable to Smoking

As a cause of early death, smoking far outweighs suicide, motor vehicle crashes, AIDS and murder combined.⁴⁴ In Canada, smoking is estimated to be responsible for at least one-quarter of all deaths for adults between the ages of 35 and 84.⁴⁵ In 1991, more than 45,000 deaths were attributed to smoking.⁴⁶ Overall, men are still more likely than women to smoke and to smoke heavily; hence, death rates due to smoking are substantially higher among males than females. This gender difference, however, can be expected to disappear as smoking rates converge.

Life Expectancy at Birth

Based on current mortality patterns, a Canadian child born in 1996 could expect to live to the age of 78.6 (males 75.7; females 81.4). This life expectancy represents a new high in Canada, possibly due to declines in the mortality rates for several of the leading causes of death. At all ages, women have a greater life expectancy than men. The gap in life expectancy at birth has continued to narrow, however, from 7.5 years in 1978 to 5.7 in 1996.⁴⁷

Exhibit 1.13 Career Earnings and Death for 500,000 Canadian Men



Source: Wolfson, M.C., et al. "Career Earnings and Death: A Longitudinal Analysis of Older Men." *Journal of Gerontology: Social Sciences*, 47, 4 (1993): S167-S179.

strong inverse relationship between career earnings and age of death for Canadian men; as earnings increased, the rate of premature mortality decreased (Exhibit 1.13). Wolfson's findings also suggest that this pattern is not primarily due to people being unable to work because of illness and thus unable to earn higher incomes, but rather because low economic status leads to exposure to unhealthy life conditions, and thus to poorer health and earlier death.⁵⁰

Consistent with these findings are the results of a study on the life expectancy of status Indians, many of whom live in low-income situations. As Exhibit 1.14 shows, the life expectancy of the status Indian population in 1990 was seven years less than that for the overall Canadian population in 1991.⁵¹

Potential Years of Life Lost⁵²

Potential years of life lost (PYLL) concerns the loss of life before age 70. Therefore, addressing the causes of PYLL would be expected to make a major difference to life expectancy and health status in general.

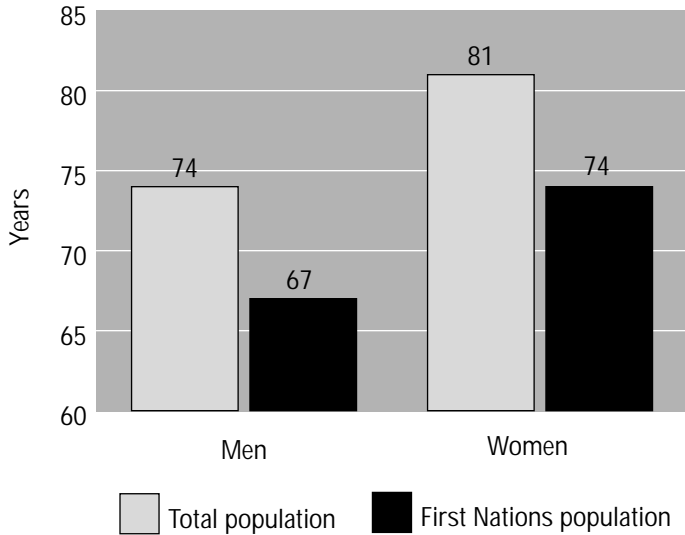
Immigration contributes to high life expectancy rates in Canada. Immigrants, particularly those from non-European countries, have lower mortality rates and higher life expectancies than residents who are Canadian-born. In 1991, 41% of male and 57% of female non-European immigrants could expect to live to age 85, compared with 23% of male and 45% of female Canadian-born residents.⁴⁸

According to a 1991 study by Robine and Ritchie, Canadian men in the highest quarter of income distribution can expect to live 6.3 years longer and 14.3 more years free of disability than those in the lowest quartile. For women, the differences are 3 and 7.6 years respectively.⁴⁹

Another study, conducted by Michael Wolfson in 1993, shows the

Exhibit 1.14

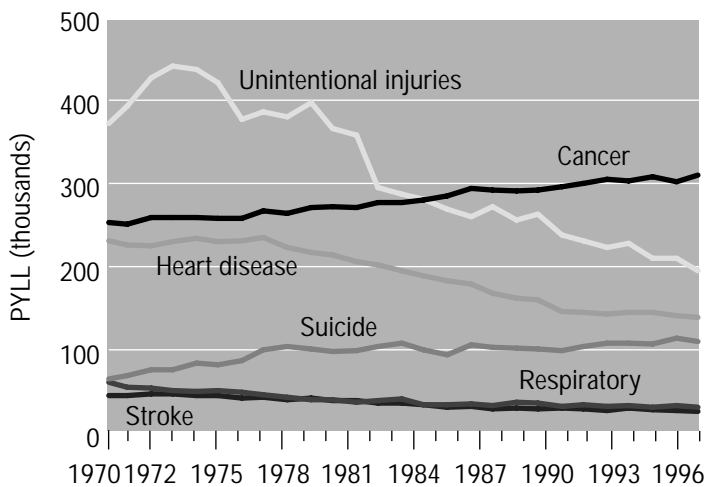
Life Expectancy, First Nations Population (1990) and Total Population, Canada (1991)



Sources: Department of Indian Affairs and Northern Development (Status Indians); Statistics Canada, *Births and Deaths, 1993*.

Exhibit 1.15

Potential Years of Life Lost (PYLL), by Cause of Death, Canada, 1970 to 1996



Source: Statistics Canada, Health Statistics Division. *Health Indicators, 1999* (Statistics Canada Cat. No. 82-221-XCB).

In 1996, there were more than 1 million PYLL due to all causes. As Exhibit 1.15 shows, the most important cause of PYLL was cancer (30% of total). Unintentional injuries (19%) and heart disease (13%) were the second and third most important causes. Cancer has been the leading cause of PYLL since 1984 and, along with suicide, is the only major cause of PYLL to have increased since 1970.

Between 1970 and 1996, there was a marked improvement in premature mortality due to unintentional injuries among young Canadians, especially for ages 10 to 19.

Potential years of life lost *per 100,000 population* allows us to compare the burden of premature mortality among various groups. Overall, these rates are almost twice as high among men as among women, and approximately three times higher among men aged 20 to 34. The higher rates of premature mortality among men in general are attributed largely to the higher rates of cancer, heart disease, suicide and unintentional injuries.

PYLL per 100,000 population varies substantially by province and territory, from a low of 3,453 in Ontario to highs of 4,742 in the Yukon Territory and 7,695 in the Northwest Territories and Nunavut combined (Exhibit 1.16). The rates of PYLL in the Northwest Territories and Nunavut are more than double that for the rest of Canada. Premature deaths from unintentional injuries and suicides in the three territories account for much of the difference.

Exhibit 1.16 Potential Years of Life Lost per 100,000 Population, by Cause and by Province and Territory, 1996

	Total	Neoplasms	Accidents	Suicide	Respiratory	Heart disease	Stroke	All others
Newfoundland	3,721	1,152	759	224	77	663	110	737
Prince Edward Island	3,687	1,189	829	188	144	642	138	557
Nova Scotia	3,983	1,264	860	367	147	592	64	689
New Brunswick	3,736	1,126	758	394	77	589	82	711
Quebec	4,032	1,192	735	660	108	521	98	717
Ontario	3,453	1,079	601	284	110	475	93	810
Manitoba	4,066	1,147	936	351	140	546	121	824
Saskatchewan	4,203	1,086	964	508	161	523	82	879
Alberta	3,943	1,009	963	529	129	492	86	735
British Columbia	3,986	960	828	279	102	385	75	1,357
Yukon Territory	4,742	775	1,788	457	86	559	0	1,078
Northwest Territories and Nunavut	7,695	1,479	2,309	1,480	370	481	269	1,308

Note: Small differences occur between the total and the sum of the cause columns because of rounding.

Source: Health Canada, Laboratory Centre for Disease Control, Calculated from Statistics Canada, Health Statistics Division. *Health Indicators, 1999* (Statistics Canada Cat. No. 82-221-XCB).

There are marked differences between socioeconomic groups in terms of PYLL. A 1995 study by Wilkins found that residents of the poorest neighbourhoods had death rates from circulatory disease, lung cancer, injuries and suicide that were significantly higher than rates for residents of the richest neighbourhoods. In other words, people who are economically disadvantaged do not suffer more from a particular disease, but show an increased vulnerability to early death due to a variety of causes. Wilkins concluded that if the death rates of the highest income group for all causes of death applied to all Canadians, more than one-fifth of all years of life lost before age 65 could be prevented.⁵³

How Does Canada Compare to Other Countries?

Many health measures indicate that Canadians enjoy a standard of health that is among the best in the world. Compared to other developed countries that are members of the Organisation for Economic Co-operation and Development (OECD), Canada ranks third in life expectancy, behind only Switzerland and Japan. Canadian mortality rates are among the lowest in the industrialized world, behind only those of South Korea, Japan, Iceland and Switzerland. And among countries reporting self-rated health status, Canada ranks behind only Norway, and well ahead of such countries as Sweden, Spain, Finland, Germany and South Korea (Exhibit 1.17).⁵⁴

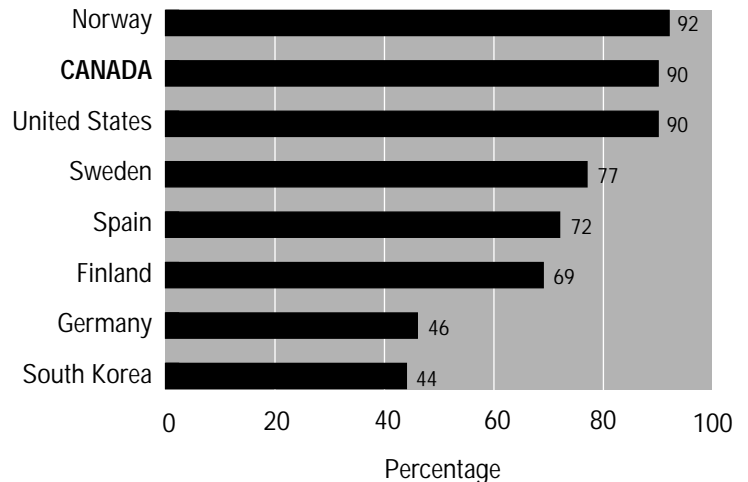
Yet, there is clearly room for improvement.

Although Canada's infant mortality rate has decreased steadily, the rate of improvement may have been lower than that in most industrialized countries. In 1990, Canada ranked fifth among 17 OECD countries; by 1996, it ranked 12th. That year, Canada's rate of 5.6 deaths per 1,000 live births was lower than those of only the United States, New Zealand, Greece, Australia and the United Kingdom.⁵⁵ However, this more recent ranking may be largely due to changes in the way infant mortality is reported in various countries.

The concept of “human development” was introduced by the United Nations (UN) in 1990 as an alternative view of development that is not equated solely with economic growth. The indices used by the Human Development Index to measure progress (life expectancy, education and standard of living) provide an important international measure of population health. Canadians have been extremely proud of their first place ranking among more than 170 countries in the last two reports of the United Nations. The country’s performance on human development falls considerably, however, when additional measures are used to account for inequities.⁵⁶

In 1998, the UN introduced two new measures of human development. The first is the Human Poverty Index-2 (HPI-2), which measures the way poverty is manifested in industrialized countries, including deprivation in survival, knowledge and disposable personal income, and social exclusion (measured by long-term unemployment). The second indicator is the gender empowerment measure, which measures women’s opportunities to participate in decision making in economic, professional and political domains. Exhibit 1.18 summarizes the four measures of human development used by the United Nations in its 1998 report.

Exhibit 1.17 Percentage Reporting Good or Better Self-Rated Health, Aged 15+, Selected OECD Countries, 1995



Note: Data for Canada are from 1996–97 and include “excellent” health.

Source: OECD. *OECD Health Data '98* (software); Statistics Canada. *National Population Health Survey, 1996–97*, special tabulations.

Exhibit 1.18 United Nations Measures of Human Development

	Longevity	Knowledge	Standard of living	Participation
Human Development Index	Life expectancy	Literacy rate and school enrolment	Adjusted per capita income	
Gender-Related Development Index	Male and female differences	Male and female differences	Male and female differences	
Human Poverty Index-2 (for developed countries)	Percentage of people not expected to live past age 60	Functional illiteracy rate	Percentage of people living below income poverty line: less than 50% of mean disposable income	Unemployment (12 months or more)
Gender Empowerment Measure			Women’s earned income share as a percentage of men’s	Women’s participation in politics and decision-making positions

Source: United Nations Development Program. *Human Development Report 1998*.

As Exhibits 1.19 and 1.20 show, Canada ranked number one in the world on the Human Development Index as a whole and when gender was factored into the three measures of human development. When the HPI-2 is applied, however, Canada drops to tenth place out of the 17 countries to which this measure was applied (Exhibit 1.21). The UN Report suggests that the reason for the drop is that “Canada has significant problems of poverty and [its] progress in human development has not been evenly distributed.” Supporting documentation in the Report shows that, in 1995, Canada had more than twice the number of citizens who lacked adequate literacy skills than Sweden, Sweden being the number one ranked country on this index. In addition, 11.7% of the Canadian population (1990) lived below the income poverty line, compared with 6.7% in Sweden and 5.9% in Germany.

Interestingly, the extent of human poverty as measured by the HPI-2 had little to do with the average level of income. The United States, with the highest per capita income among the 17 countries, also had the highest index of human poverty. Sweden, which ranked first in the HPI-2, was 13th in average income. This suggests two things:

Exhibit 1.19 Human Development Index, 1995*
World Rank (1=best)

1	CANADA
2	France
3	Norway
4	U.S.A.
5	Iceland
6	Finland
7	Netherlands
8	Japan
9	New Zealand
10	Sweden

* 174 countries total

Exhibit 1.20 Gender-Related Development Index, 1995*
World Rank (1=best)

1	CANADA
2	Norway
3	Sweden
4	Iceland
5	Finland
6	U.S.A.
7	France
8	New Zealand
9	Australia
10	Denmark

* 102 countries total

Exhibit 1.21 Human Poverty Index-2, 1995*
World Rank (1=best)

1	Sweden
2	Netherlands
3	Germany
4	Norway
5	Italy
6	Finland
7	France
8	Japan
9	Denmark
10	CANADA

* 17 industrialized countries

Exhibit 1.22 Gender Empowerment Measure, 1995*
World Rank (1=best)

1	Sweden
2	Norway
3	Denmark
4	New Zealand
5	Finland
6	Iceland
7	CANADA
8	Germany
9	Netherlands
10	Austria

* 174 countries total

Source: United Nations Development Program. *Human Development Report 1998*.

first, that “poverty” is not just about income — it is also about reduced opportunities in employment, education and political life. Second, development progress is closely tied to the degree of inequity in income distribution in any given country.

Exhibit 1.22 suggests that Canada needs to provide more opportunities for women to participate in decision-making positions in the political, business and professional communities and to decrease the wage gap between men and women. Again, per capita income had little to do with the degree to which a country empowers women. In some cases, developing countries did better than industrialized countries; for example, Trinidad and Barbados were ahead of the United Kingdom and Ireland on this measure.

Discussion

Reducing Inequities

As Canada stands poised to enter a new millennium, reducing persistent inequities in health status remains one of our greatest challenges to achieving population health. Canadians with low incomes and low levels of education (which are often related) are more likely to have poor health status, no matter which measure of health is used. They are also more likely to die earlier than other Canadians, no matter which cause of death is considered.

This chapter also shows that poor health is not just the result of economic deprivation — indeed, an active gradient is at work. In other words, health status improves for all Canadians with each step up the economic ladder. Current thinking suggests that this may be related to increased susceptibility to disease processes related to the stresses of disadvantage and the coping skills people possess, in addition to increased exposure to threats in the physical environment.⁵⁷

This report recognizes the inherent challenges in achieving the goal of reduced inequities. Virtually all societies struggle with this problem. Achieving complete equality in health status among all Canadians is an unrealistic goal. But achieving “equitable” or fair access to the opportunities and supportive environments all people need to be healthy is both a laudable and achievable goal in a caring, civilized society. The United Nations report on human development suggests that efforts to reduce relative poverty, and to increase opportunities in education, employment, wages and participation in political and economic spheres are the key strategies for reducing inequities and, therefore, improving the health and well-being of Canadians.

Addressing Differences in Population Groups

This report and others point to the urgent need to find effective ways to improve the health of Canada’s Aboriginal people. Failure to address inequities in the health and socioeconomic status of Aboriginal people will inevitably lead to continuing disparities and to an increase in illness, suffering and early deaths for this population.

Aboriginal communities have the lead role in finding ways to enable their people to take control of and improve their health. However, to do so will require all policy-makers and practitioners (both Aboriginal and non-Aboriginal) to work with Canada’s Native peoples to find culturally appropriate ways to improve their health and well-being.

Gender Has an Important Influence on Health

In the last half of this century, women have lived longer than men; however, the gap in life expectancy at birth between women and men has continued to narrow — from 7.5 years in 1978 to 5.7 years in 1996.⁵⁸ This may be due to a number of factors including increases in stress on women and decreases in the major causes of premature death among men, especially ischemic heart disease and lung cancer.

While this reduction in two of the major causes of death among men is welcome, premature mortality rates continue to be substantially higher among men than women. If male mortality rates are to be further reduced, increasing attention needs to be paid to other major causes of death among men, including fatal injuries and suicide.

While a decrease in lung cancer deaths is good news for men, cancer death rates have remained stubbornly persistent for women, mainly due to continuing increases in lung cancer mortality. At the same time, smoking rates among young women have continued to escalate (see Chapter 5). Indeed, adolescent women are now more likely to smoke than adolescent men. Unless the trend toward increased smoking among young women is quickly reversed, lung cancer will increasingly become a major killer of women.

Quality of life is as important as quantity. While women live longer than men, they also suffer more from chronic diseases and disabilities. Efforts to prevent these problems in the senior years are essential to maintaining and improving the health of both women and men, but may be particularly important to women.

This chapter (and others to follow) also suggests a need to address the psychosocial well-being of young people. Low scores for psychological well-being, high scores for probable depression and high rates of suicide are warning signs that many of Canada's young people are greatly troubled. Increases in substance use and multiple risk behaviours, which will be discussed in subsequent chapters, are further signs of youth distress. The next chapter suggests that enhanced employment opportunities, incentives for higher education and nurturing communities are all prerequisites for improving the well-being of Canada's young people.

Increasing Health Promotion and Disease and Injury Prevention Activities in Key Areas

Most of the causes of disease, disability and early death explored in this chapter are preventable. In the cases of heart disease and cancer, we are beginning to see some positive results from ongoing efforts to prevent and reduce these diseases. These initiatives (and others) need to continue, with an increased focus on Canadians with low incomes and low levels of education.

Deaths and disabilities due to smoking and unintentional injuries are almost all preventable. As such, they must remain a high priority for policy-makers and practitioners. In terms of injuries, we need to pay attention to and better understand gender and age differences in risk-taking behaviour, the causes of both intentional and non-intentional injuries, and how they are best prevented. Reducing the very high rates of injury and injury-related deaths among Aboriginal young people must also be a priority for action.

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