



# Healthy Canadians



A Federal Report on  
Comparable Health Indicators 2002

# HEALTHY CANADIANS

## A Federal Report on Comparable Health Indicators



This report is consistent with the Federal/Provincial/Territorial agreement by First Ministers in September 2000 to report on comparable health indicators.

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September 2002

## MESSAGE FROM THE MINISTER OF HEALTH



I am pleased to release *Healthy Canadians — A Federal Report on Comparable Health Indicators 2002*, which will help to fulfill the Government of Canada's commitments to provide clear accountability and reporting of health care services to Canadians made by First Ministers in September 2000. This marks the first time that health ministries from all fourteen jurisdictions, including the federal government, are concurrently reporting to their constituents on a set of jointly-agreed indicators addressing health status, health outcomes and quality of service.

The reports mark the beginning of an ongoing process of comparable reporting. These reports will help Canadians see their governments' progress in attaining goals and objectives in the delivery and renewal of the health care system. The ability to readily compare results will aid in the identification and sharing of best practices among jurisdictions, and assist individuals, governments and health care providers in making informed choices so that we can lead healthier lives.

Considerable work has been required to identify and develop the indicators for these reports to achieve the best possible comprehensiveness, comparability and quality in a short period of time. I would like to thank health ministries, advisory councils, Statistics Canada, the Canadian Institute for Health Information and l'Institut de la statistique du Québec for their invaluable contributions. I would especially like to note the spirit of collaboration that led to these reports, a spirit that will continue.

There is more work to do. Over time, I am hopeful that jurisdictions will be able to report on all indicators, and that we can identify better indicators in some areas. As well, we must ensure more rigorous quality assurance for some of the data. However, I am confident that these reports will help inform discussions of health system renewal in Canada and support continued improvements for healthier Canadians.

Sincerely,

A handwritten signature in black ink that reads "A. Anne McLellan".

A. Anne McLellan  
Minister of Health



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## EXECUTIVE SUMMARY

*In September 2000, Canada's First Ministers reiterated their commitments to accountability and reporting to Canadians. They directed Health Ministers to provide comprehensive and regular public reporting on health programs and services and on health system performance. They also directed Health Ministers to develop a framework of jointly agreed comparable indicators of health status, health outcomes and quality of service such that each jurisdiction would begin reporting by September 2002. First Ministers identified 14 areas for reporting, and jurisdictions, through the Conference of Deputy Ministers of Health, have agreed to 67 specific indicators.*

Much of the data jurisdictions are able to report on in a comparable fashion reflects federal support for health information through the Canadian Institute for Health Information, Statistics Canada and Health Canada. However, further work remains to develop appropriate indicators, build the capacity of jurisdictions to report, and to improve the quality of the measuring and reporting processes. This work will be continued by jurisdictions, as well as in collaboration through a new federal/provincial/territorial committee on governance and accountability. These reports are a step in an ongoing process, and the next reports are scheduled for November 2004.

*Healthy Canadians — A Federal Report on Comparable Health Indicators* addresses 58 of the 67 indicators for Canadians as a whole. Although there are national numbers for most of the health status and health outcomes measures, national numbers for indicators of quality of service are only available in cases where national surveys were conducted or where all jurisdictions reported data in a manner that made a national total possible. In addition, this report provides information on such populations as First Nations on reserve, veterans, military personnel and inmates of federal penitentiaries, for whom the federal government has particular responsibilities in the area of health care services delivery. (See Annex 1: Comparable Health Indicators: List of 67 Indicators)



## Highlights

**Good results have been achieved, including:**

- Canadians are living longer than ever. Life expectancy for Canadians reached 79.0 years in 1999, compared with 74.9 years in 1979.
- Compared with other developed countries, Canada has one of the lowest rates of low birth weight.
- In 2001, an estimated 87.7% of Canadians reported having a regular family physician.
- In 2000–01, 84.4% of Canadians rated the quality of overall health services they received as either excellent or very good.
- Compared with other developed countries, Canada has one of the lowest mortality rates attributable to colorectal cancer.
- Positive HIV test reports declined in Canada between 1995 and 2000, from 10.2 to 6.9, but increased in 2001 to 7.1 per 100,000 population.
- Between 1979 and 2000, the life expectancy of First Nations populations on and off reserve increased from 59.2 to 68.9 years for men, and from 65.9 to 76.6 years for women.
- Infant mortality rates for First Nations populations have been declining steadily; between 1979 and 1999, the rate dropped from 27.6 to 8.0 deaths per 1,000 live births.

**There are areas for improvement, including:**

- The lung cancer mortality rate for women in Canada is rising. In 1999 it was 34.8 per 100,000 population compared with 26.9 in 1988.
- The incidence of chlamydia, a sexually transmitted disease, appears to be on the rise in Canada. It increased to 161.0 in 2001 from 126.8 cases per 100,000 population in 1995.
- In 2001, the prevalence of smoking among teenagers continued to be high, with approximately one in five youths aged 12–19 reporting that they smoke.
- Although there have been improvements in the health status of First Nations populations, there are still significant disparities between First Nations and the Canadian population as a whole:
  - The prevalence of diabetes in the Canadian population seems to be increasing and the self-reported rate for First Nations populations is two to three times as high as for Canadians as a whole.
  - In 2002, only 38% of First Nations survey respondents reported very good to excellent health, compared with 61.4% of all Canadians in 2000–01.
  - In 1999, First Nations populations lost almost five times as many potential years of life (per 100,000 population) to unintentional injury and three times as many years to suicide as did Canadians overall.
  - There has been limited success in reducing the incidence of tuberculosis among First Nations populations, particularly in western Canada and the territories, where clustered outbreaks continue. Tuberculosis rates in First Nations populations are 8 to 10 times as high as they are in the Canadian population overall.



## PREFACE

*In September 2000, the Government of Canada and provincial and territorial governments reached an historic agreement on health, articulating a vision, principles and an action plan for health system renewal, as well as commitments to accountability and collaboration. This agreement was accompanied by a further federal investment in the Canada Health and Social Transfer of \$21.1 billion over five years.*

As part of this agreement, First Ministers made commitments to clear accountability and reporting to Canadians. First Ministers directed Health Ministers to:

- “ • collaborate on the development of a comprehensive framework using jointly agreed comparable indicators such that each government will begin reporting by September 2002. These comparable indicators will address:
  - health status (i.e., life expectancy, infant mortality, low birth weight, people reporting their health as excellent);
  - health outcomes (i.e., change in life expectancy, improved quality of life, reduced burden of disease and illness); and
  - quality of service (i.e., waiting times for key diagnostic and treatment services, patient satisfaction, hospital re-admissions, access to 24/7 first

contact health services, home and community care services, the adequacy of public health surveillance and health protection and promotion activities).”

(See: First Ministers’ Meeting Communiqué on Health <http://www.scics.gc.ca>)

A Performance Indicators Reporting Committee, chaired by Alberta, was established to develop the framework and populate the 14 areas identified by First Ministers. Members of the committee include representatives from Quebec, Ontario, Newfoundland and Health Canada. The committee worked with provincial, territorial and federal partners and identified 67 indicators for comparable reporting. The reports released in September 2002 are part of an ongoing process and establish a benchmark for further measurement. Some of the indicators are well developed and readily available; others are developmental and

need further work. There is more to be done to improve coverage, comprehensiveness and quality of measuring and reporting. The Auditor General of Canada has also noted the need to improve the documentation of quality assurance processes. This work will be continued by jurisdictions, as well as in collaboration through a new federal/ provincial/ territorial committee on governance and accountability. The next reports are scheduled for November 2004.

This report provides an overview of national level data. In addition, since the federal government is the fifth largest provider of health services in Canada, the report also highlights aspects of health care and health care delivery that are under federal jurisdiction, with a focus on First Nations populations on reserve and some information on other populations for whom the federal government has responsibility, including veterans, military personnel, inmates of federal penitentiaries and the Royal Canadian Mounted Police. The collection of health data for First Nations populations faces

several challenges, and comparisons with national figures should be made with caution.

The federal report addresses 58 of the 67 indicators. It does not, for example, report on some survival rates, waiting times for specific interventions, and home and community care admissions. These indicators are derived from hospital and facility administrative data, and until they are standardized and reported by all jurisdictions, a national number cannot be derived.

The first section of this report, "Measuring Performance," addresses selected indicators, touching on at least one indicator in each of the 14 areas identified by First Ministers, and focussing on indicators more relevant for federal reporting. Annex 1 contains the list of 67 indicators as identified by the Performance Indicators Reporting Committee, noting which are included in the federal report. Annex 2 contains the full slate of 67 indicators, with a description, definition and corresponding data tables.

## THE GOVERNMENT OF CANADA'S ROLE IN HEALTH

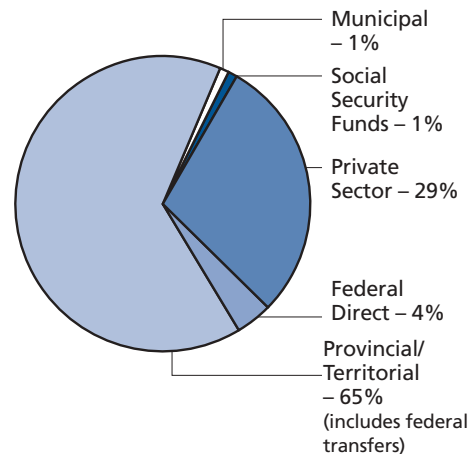
**A**lthough Canada's health care system is often described as an interlocking grid of provincial and territorial plans, the Government of Canada is the fifth largest provider of health services to Canadians. In addition to setting and administering national principles or standards for the health care system (i.e., Canada Health Act), assisting in the financing of provincial health care services through fiscal transfers, and fulfilling other functions for which it is constitutionally responsible, it serves approximately 950,000 clients at a cost of \$3.4 billion annually.

Specifically, the Government of Canada provides health care services to such groups as veterans, military personnel, inmates of federal penitentiaries and the Royal Canadian Mounted Police. Health Canada provides health services to First Nations populations living on reserves, to communities in the territories, and to the Inuit through community-based nursing stations, health centres, and other facilities in isolated and remote areas.

### Distribution of Total Health Expenditures

By Source of Finance, Canada, 1999

**TOTAL \$89.6 (current) billion**



Source: Canadian Institute for Health Information, *National Health Expenditure Trends, 1975–2001*

## An Overview of Federal Health Services

Several federal government departments either provide health services or ensure that health services are provided to specific populations, including:

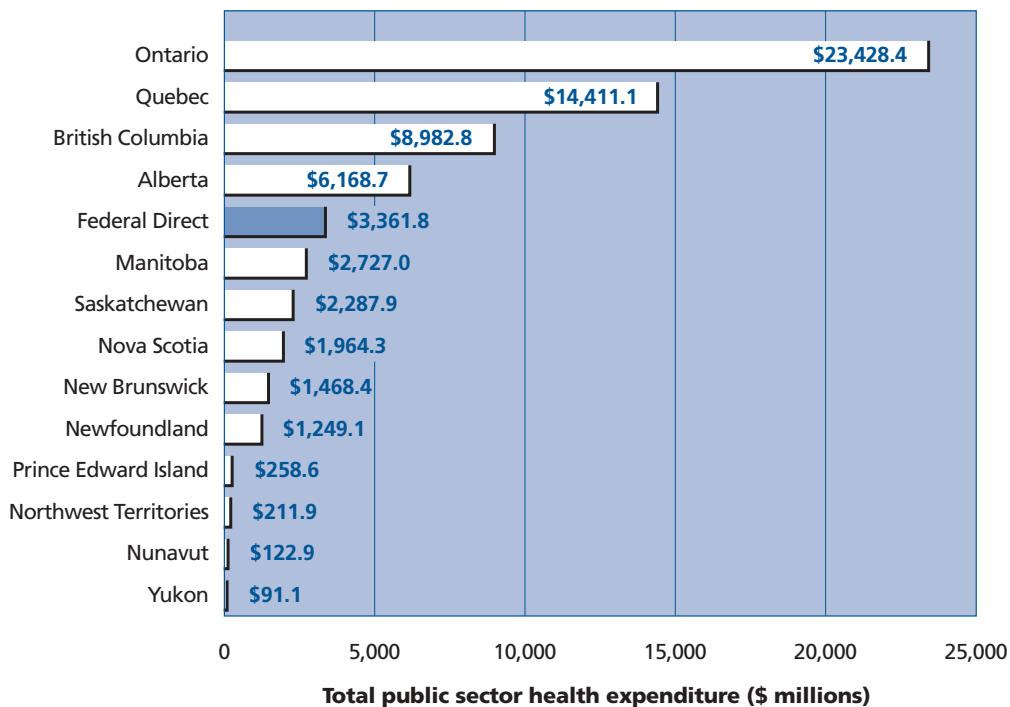
**Health Canada's** First Nations and Inuit health programs account for about \$1.3 billion annually and serve approximately 400,000 First Nations clients living on reserve, as well as

300,000 Inuit and First Nations people living off reserve. Health Canada provides:

- health services outside of private or provincial/territorial health plans such as vision and dental care, drugs, crisis mental health counselling, transport, and medical supplies and equipment to eligible First Nations and Inuit clients regardless of residence;

## Total Public Sector Health Care Spending

By Region, 1999



Source: Canadian Institute for Health Information, *National Health Expenditure Trends, 1975–2001*

- community-based health programs, including on reserve disease prevention and health promotion programs; community nursing services; health education; drug, alcohol and substance abuse programs; mental health and child development programs; and environmental health services; and
- limited hospital services.

**Veterans Affairs Canada** pays for the health care (including a comprehensive range of health care benefits not provided provincially) for war and Canadian Forces veterans who meet service and income requirements or have been awarded disability pensions resulting from military service. The department also provides institutional care for eligible clients in community care facilities. In 2000–01, 133,300 clients were eligible for health care benefits, resulting in expenditures of \$541.7 million in health care programming. The *Canada Health Act* excludes inmates of federal penitentiaries and members of the **Canadian Forces** and the **Royal Canadian Mounted Police** from the definition of “insured persons” for whom health services are provided under provincial health care plans.

#### The **Correctional Service of Canada**

provides inmates with essential health care as well as reasonable access to non-essential mental health care that will contribute to the inmate’s rehabilitation and successful reintegration into the community. “Health care” includes mental, physical and dental care. Services are provided through a network of health units at all penitentiaries, including five regional hospitals and dedicated mental health treatment centres. Community specialists and diagnostic and hospital services are used as required. The annual operating expenditures for delivery of these health services in 2000–01 to approximately 12,500 inmates was \$98.5 million.

#### The **Department of National Defence**

provides for the health care needs of Canadian Forces members whether at home or abroad. Health care services are provided through a network of Canadian Forces’ Health Care Clinics or by purchasing services from the provinces. A comprehensive range of health services is provided to 60,000 Regular Forces and 33,000 Reserve (while on duty) members. Health expenditures in 2001–02 were approximately \$450 million.



The **Royal Canadian Mounted Police** (RCMP) provides health care to members. A comprehensive range of health services is provided to ensure that members are emotionally and medically fit to perform their duties safely. Members receive their personal health care from providers of their choice within their immediate community as long as the provider meets criteria specified by the RCMP. Approximately 15,200 members are eligible to receive health benefits and in 2000–01, health expenditures were approximately \$30 million.

Health information about First Nations and Aboriginal populations is derived from several sources and can refer to different populations.

**Aboriginal:** Those people who reported identifying with at least one Aboriginal group, that is, North American Indian, Métis or Inuit. Also included are all those who reported being a Treaty Indian or a Registered Indian as defined by the *Indian Act* of Canada, as well as members of an Indian Band or members of First Nations.

**Registered Indian Population/ Status**

**Indian:** An Indian person who is registered under the *Indian Act*.

**First Nations:** Unless otherwise stated, refers to First Nations living on reserve.

# MEASURING PERFORMANCE—HIGHLIGHTS

## Health Status

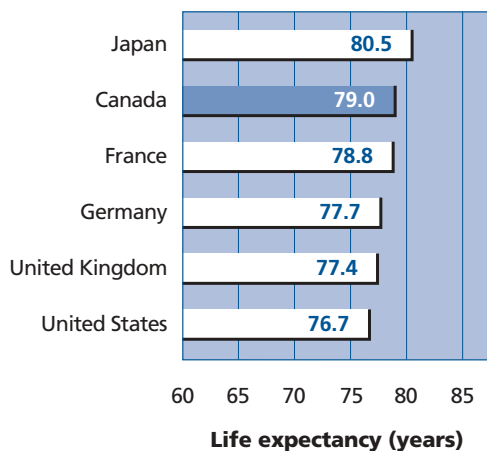
Health status indicators tell us about the health of the overall population. They are influenced by many factors, including education, economic status and living conditions. In general, Canadians are healthy compared with people in other developed countries. There are, however, significant disparities in the Canadian population. Members of First Nations, living on and off reserve, do not on average enjoy the same good health as the rest of the population.

## 1. Life expectancy

*Description:* Male and female life expectancy at birth

### Life Expectancy at Birth

*Selected Countries, 1999*

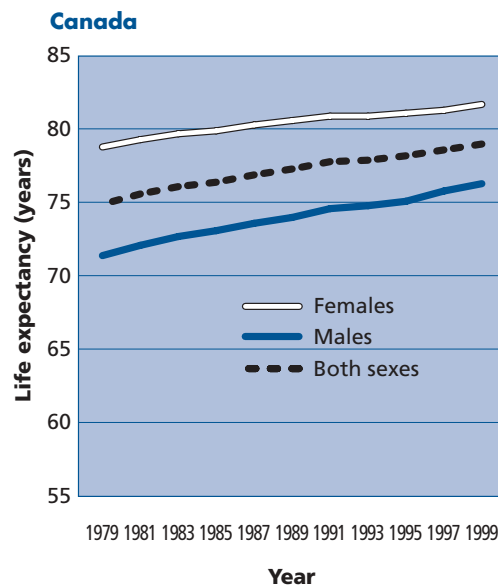


Source: Organisation for Economic Cooperation and Development Health Data, 2002

**Results:** Canadians have one of the highest life expectancies in the world. In 1999, Canada had the second-highest life expectancy among selected developed countries.

### Life Expectancy at Birth

*By Sex, Canada, 1979 to 1999*

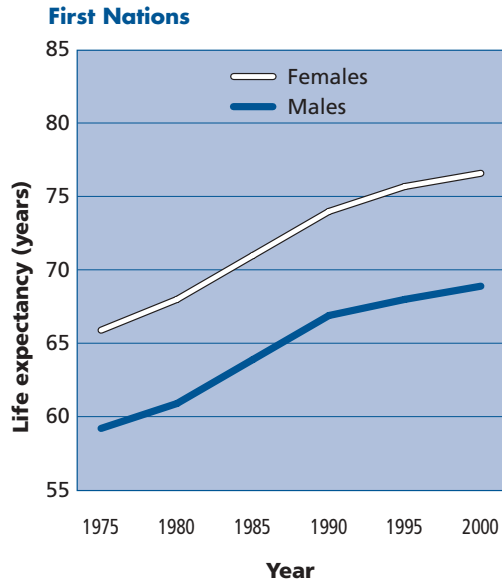


Source: Statistics Canada, Canadian Vital Statistics, Birth and Death Databases, Demography Division (population estimates)

In Canada, life expectancy has been increasing continuously over the last 25 years. In 1999, life expectancy for Canadian males was 76.3 years; for females, it was 81.7 years.

## Life Expectancy at Birth

By Sex, First Nations (on and off reserve), 1975 to 2000



Source: Indian and Northern Affairs Canada, Basic Departmental Data, 2001

Between 1975 and 2000, the life expectancy for First Nations populations on and off reserve increased significantly, rising from 59.2 to 68.9 years for men and from 65.9 to 76.6 years for women.

**Comments:** The life expectancy for a given population indicates the number of years that a person born in a specific year could be expected to live. It is influenced by numerous factors, including educational, social and economic status, as well as the performance of the health system.

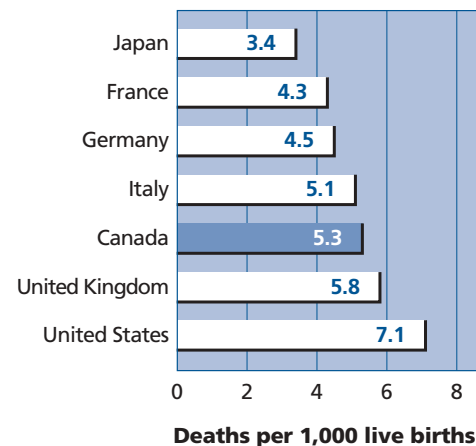
Although the gap between life expectancy of First Nations populations on reserve compared with that of the Canadian population has been closing steadily for 25 years, it remains a concern.

## 2. Infant mortality

**Description:** Infant mortality

### Infant Mortality Rates (including weights < 500 grams)

Selected Countries, 1999



Source: Organisation for Economic Cooperation and Development Health Data, 2002

**Results:** Canada has a rate of infant mortality that is comparable to selected developed countries.

The infant mortality rate in Canada has improved over the past two decades. From 1979 to 1999, the rate declined from 10.5 to 4.4 deaths per 1,000 live births.

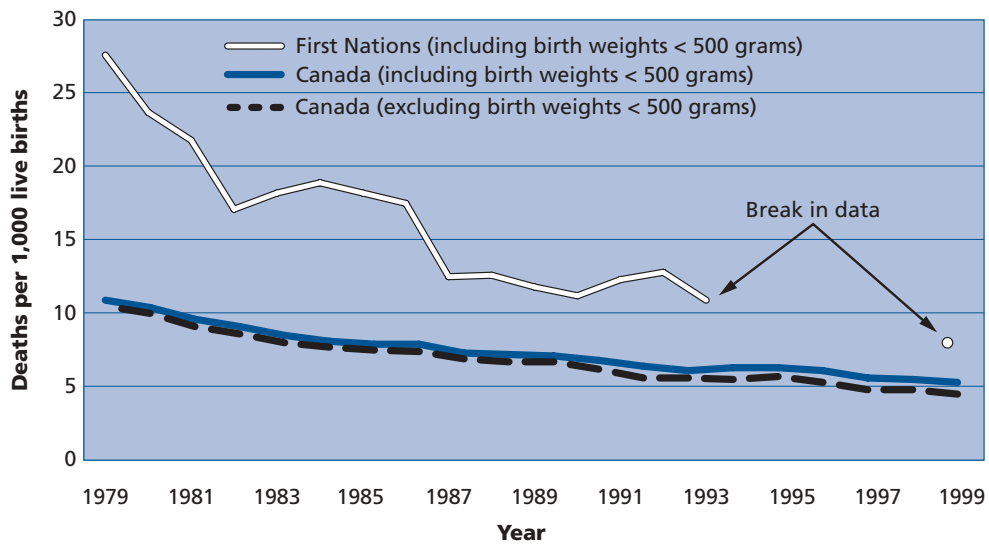
Although the infant mortality rate for First Nations populations has historically been much higher than the rate for Canada as a whole, it too has declined steadily since the mid-1980s.

**Comments:** Infant mortality is a useful measure of both child and societal well-being, offering insight into the health status of the population and

shedding light on the effectiveness of preventive health care in that population and the attention paid to the health of mothers and children. It is also linked to the educational and socio-economic status of mothers and the prevalence of smoking.

### Infant Mortality Rates

Canada and First Nations (on reserve\*), 1979 to 1999



Sources: Statistics Canada, Canadian Vital Statistics, Birth and Death Databases; Health Canada, First Nations and Inuit Branch, in-house statistics  
 \* Contains data from British Columbia and Alberta that are both on and off reserve.

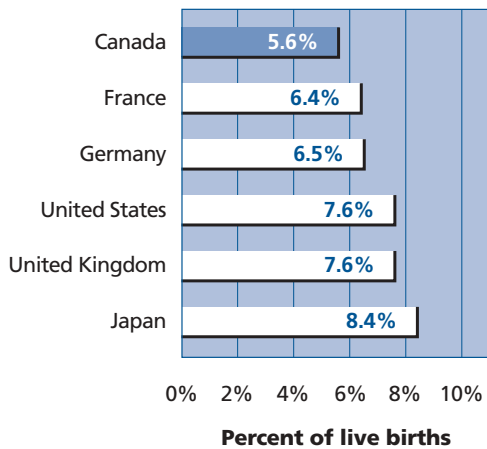
### 3. Low birth weight

**Description:** Low birth weight

**Results:** In 1999, the proportion of babies born with a low birth weight in Canada was small relative to selected developed countries.

#### Low Birth Weight\* Rate

Selected Countries, 1999



Source: Organisation for Economic Cooperation and Development Health Data, 2002

\* Includes birth weight less than 2,500 grams.

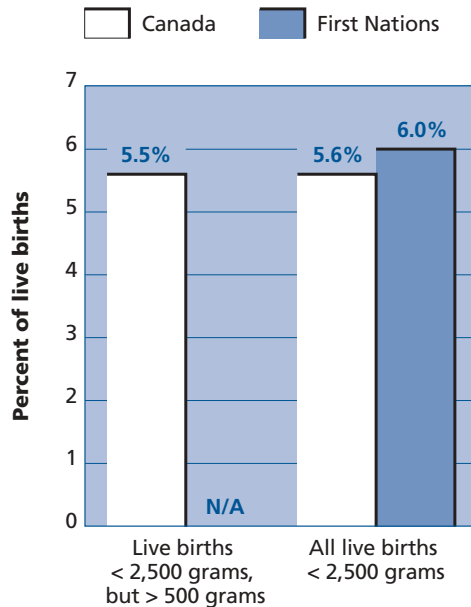
Low birth weight data collection generally includes infants born weighing less than 2,500 grams but at least 500 grams. In 1999, 5.5% of babies born to Canadian mothers were at a low birth weight.

When infants weighing less than 500 grams at birth are included in the total (as they have traditionally been in the First Nations data collection), the low birth weight rate for Canada as a whole in 1999 was 5.6%, while for First Nations it was 6.0%.

**Comments:** Low birth weight is an indicator of the general health of newborns and a key determinant of infant survival, health and development. Infants with a low birth weight are at greater risk of dying during the first year of life and, if they survive, have a higher incidence of disability and disease. Mothers in poor health, with unhealthy lifestyles or living in difficult economic circumstances are at greater risk of giving birth to an infant of low birth weight.

#### Low Birth Weight

Canada and First Nations (on reserve\*), 1999



Sources: Statistics Canada; Health Canada, First Nations and Inuit Health Branch, in-house statistics

\* Contains data from British Columbia and Alberta that are both on and off reserve.

The rate of high birth weight is a concern in First Nations populations, where it is almost twice as great as in the overall Canadian population.<sup>1</sup>

Both low birth weight and high birth weight have been associated with gestational diabetes and maternal obesity, and have been linked to a higher frequency of illness and death in infants, and to the development of diabetes later in life.

## 4. Self-reported health

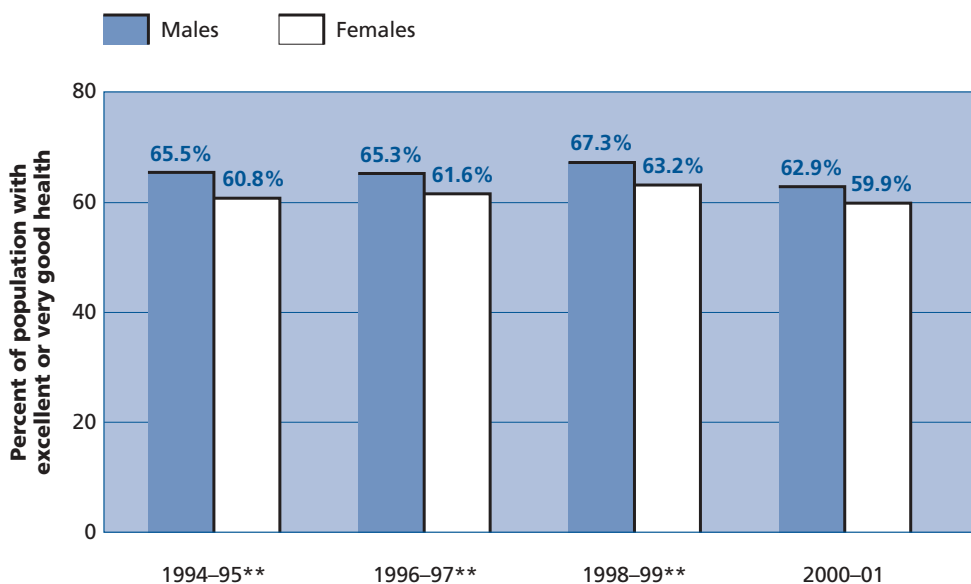
### Description: Self-reported health

**Results:** Compared with selected developed countries, Canada ranks second after the United States in the percent of the population reporting their health status as either good or better.<sup>2</sup>

In 2000–01, 62.9% of Canadian males and 59.9% of females aged 12 and over reported being in excellent or very good health, a decline from 67.3% and 63.2%, respectively in 1998–99.

### Self-Reported Health Status

By Sex, Canada,\* 1994–95\*\* to 2000–01



Source: Statistics Canada, *National Population Health Survey*, 1994–95, 1996–97 and 1998–99, cross-sectional sample, health file; *Canadian Community Health Survey*, 2000–01

\* Includes household population 12 years of age and over.

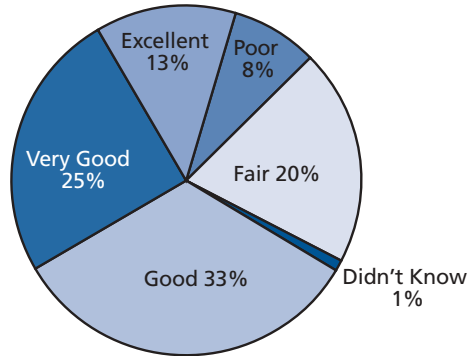
\*\* Data for *National Population Health Survey* excludes the territories.

<sup>1</sup> Health Canada, First Nations and Inuit Health Branch, in-house statistics.

<sup>2</sup> Organisation for Economic Cooperation and Development Health Data (2002).

## Self-Reported Health

Percent of Survey Respondents Aged 18 and Over, First Nations (on reserve), 2002



Source: National Aboriginal Health Organization. Preliminary results of the NAHO Public Opinion Poll on Health Care, July 2002.

In 2002, 38% of First Nations on reserve respondents to the *National Aboriginal Health Organization Public Opinion Poll on Health Care* reported very good to excellent health, while 28% reported poor to fair health.

*Comments:* Self-reported health is a general indicator of the overall health status of individuals. It can capture what other indicators may miss, such as incipient disease, disease severity, and social and mental function.

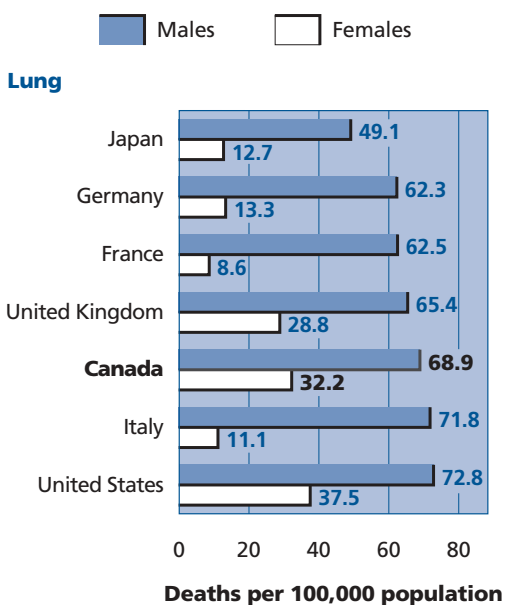
In the *Canadian Forces Health and Lifestyle Information Survey (2000)*, 62% or 17,230 of 27,482 Regular Force member respondents reported their health as excellent or very good. ([www.forces.gc.ca/health/engraph/home\\_e.asp](http://www.forces.gc.ca/health/engraph/home_e.asp))

## Health Outcomes

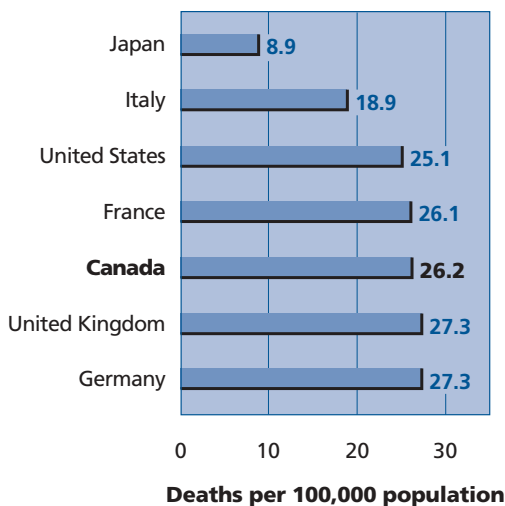
Measures of health outcomes attempt to track the effects of policy, program or clinical interventions on quality of life. Ideally, these interventions lead to better health outcomes. Without a baseline and a systematic way of reporting on results, it is difficult to measure the benefits of these interventions or to make informed choices in opting for procedures, setting priorities and allocating resources. There remains considerable work to be done in identifying and refining measures in this area to quantify and compare the effects of specific interventions.

### Mortality Rate for Cancer

By Sex (Age Standardized), Selected Countries, 1997



### Prostate Cancer



Source: Organisation for Economic Cooperation and Development Health Data, 2002  
 Note: Age standardized to the 1980 OECD population.

## 5. Change in life expectancy

**Description:** Age-standardized mortality rates for lung, prostate, breast and colorectal cancer

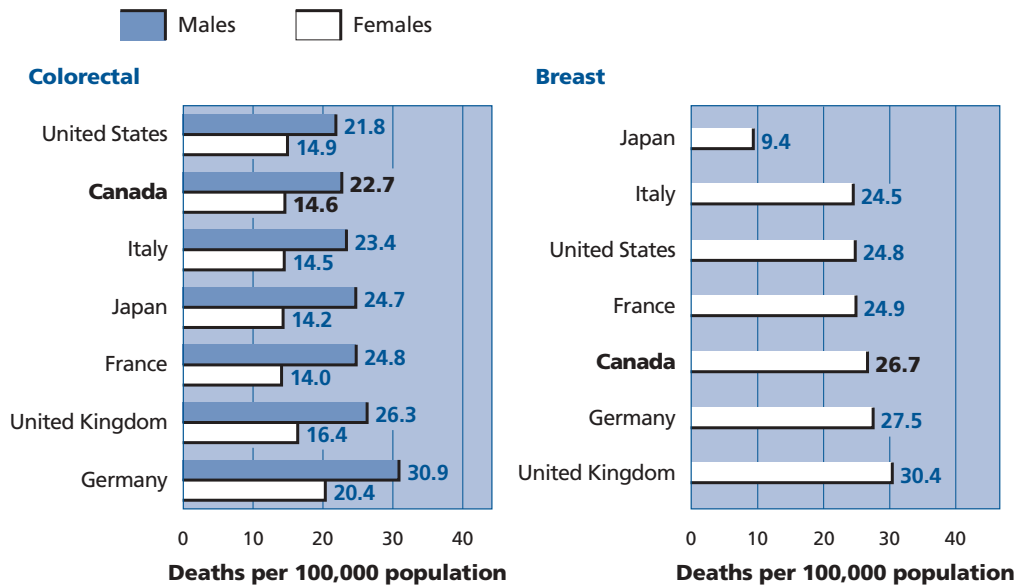
**Results:** Canada has one of the lowest mortality rates among selected developed countries for colorectal cancer, and has comparable mortality rates for lung, breast and prostate cancer.





## Mortality Rate for Cancer

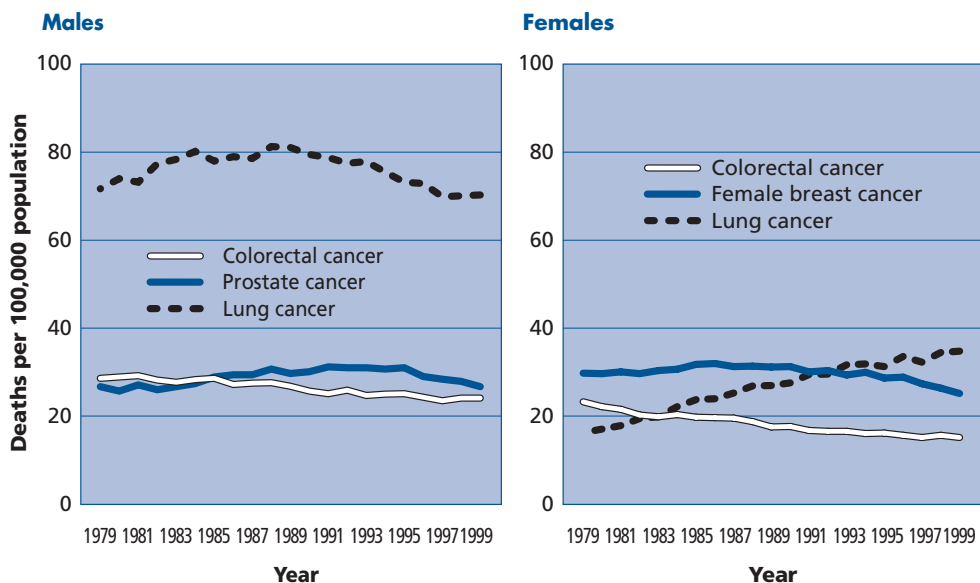
By Sex (Age Standardized), Selected Countries, 1997



Source: Organisation for Economic Cooperation and Development Health Data, 2002  
 Note: Age standardized to the 1980 OECD population.

## Mortality Rate for Cancer

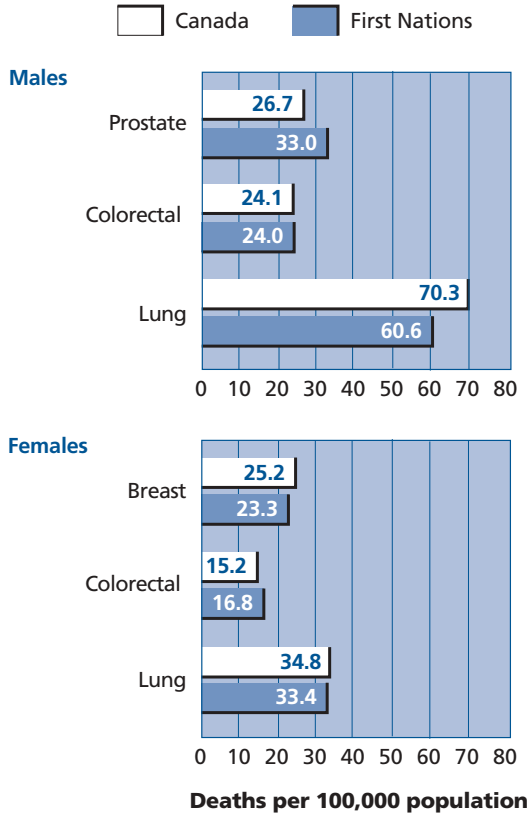
By Sex (Age Standardized), Canada, 1979 to 1999



Source: Statistics Canada, Canadian Vital Statistics, Death Database, Demography Division (population estimates), 1991 Census of Population  
 Note: Age standardized to the 1991 Canadian population.

## Mortality Rates for Cancer

By Sex (Age Standardized), Canada and First Nations (on reserve\*), 1999



Sources: Statistics Canada; Health Canada, First Nations and Inuit Health Branch Health, in-house statistics  
 Note: Age standardized to the 1991 Canadian population.  
 \*Contains data from British Columbia and Alberta that are both on and off reserve.

The lung cancer mortality rate for women in Canada is rising; in 1999, it was 34.8 compared with 26.9 per 100,000 population in 1988. Nevertheless, it has been consistently well below the rate for men. The lung cancer mortality rate for men in Canada is now falling. In 1999, it was 70.3, down from 81.3 per 100,000 population in 1988. Cancer mortality rates are generally lower in the First Nations populations than in the Canadian population, with the exception of prostate cancer in males and colorectal cancer in females.

*Comments:* Age-standardized cancer mortality rate trends may indicate long-term success in reducing deaths from these diseases. Lower mortality rates may indicate success in disease detection and treatment.

### Age Standardization —

A procedure for adjusting rates (e.g., death rates) designed to minimize the effects of differences in age composition when comparing rates for different populations.



## 6. Improved quality of life

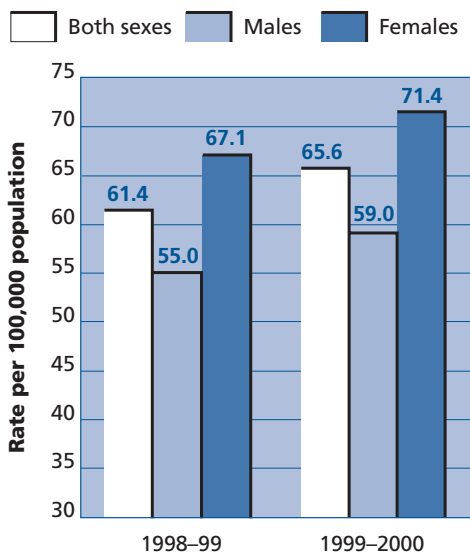
Results of hip and knee replacements have demonstrated that health-related quality of life improved substantially for the great majority of those receiving these procedures. Due to limitations in data, intervention rates for joint replacements are being used as surrogate indicators of health-related quality of life.

### Description: Total knee replacement rate

**Results:** In 1999–2000, the knee replacement rate in Canada increased to 65.6

### Knee Replacement Rate

By Sex (Age Standardized), Canada, 1998–99 and 1999–2000



Sources: Canadian Institute for Health Information, Hospital Morbidity Database; Statistics Canada, 1991 Census of Population  
Note: Age standardized to the 1991 Canadian population.

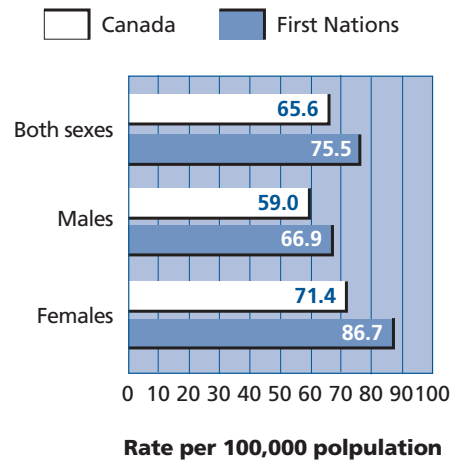
from a rate of 61.4 per 100,000 population in 1998–99, and the rate was greater for women than for men.

In 1999, First Nations populations had a higher rate of knee replacement than did the Canadian population overall.

**Comments:** Recent study results show that health-related quality of life substantially improves for the majority of individuals who receive knee replacements. Similarly, in one study more than 94% of individuals who had received hip replacements reported significant lessening of pain and stiffness and improvement in overall functioning.<sup>3</sup>

### Knee Replacement Rate

By Sex (Age Standardized), Canada\* and First Nations (on reserve), 1999



Sources: Canadian Institute for Health Information, Hospital Morbidity Database; Statistics Canada, 1991 Census of Population  
Note: Age standardized to the 1991 Canadian population.  
\* Canadian data are for fiscal year 1999–2000.

<sup>3</sup> Charles J. Wright and Yoel Robens-Paradise. *Evaluation of Indications and Outcomes in Elective Surgery* (May 2001).

## 7. Reduced burden of disease, illness and injury

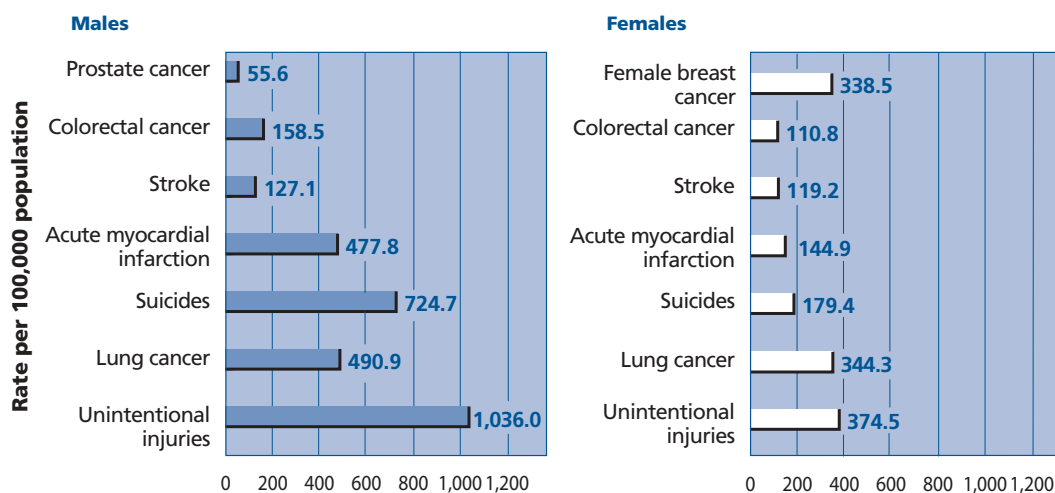
**Description:** Potential years of life lost

**Results:** In the total Canadian population in 1999, and for the selected causes shown, unintentional injuries accounted for the greatest number of potential years of life lost per 100,000 population for males (1,036 years), followed by suicides (725 years), lung cancer (491 years) and

acute myocardial infarction (478 years). For females, unintentional injuries also accounted for the greatest number of potential years of life lost per 100,000 population (375 years), followed by lung cancer (344 years), breast cancer (339 years) and suicides (179 years). The potential years of life lost per 100,000 population is greater for men than for women for all the causes shown. The difference is particularly large for acute myocardial infarction, injury and suicide.

### Potential Years of Life Lost

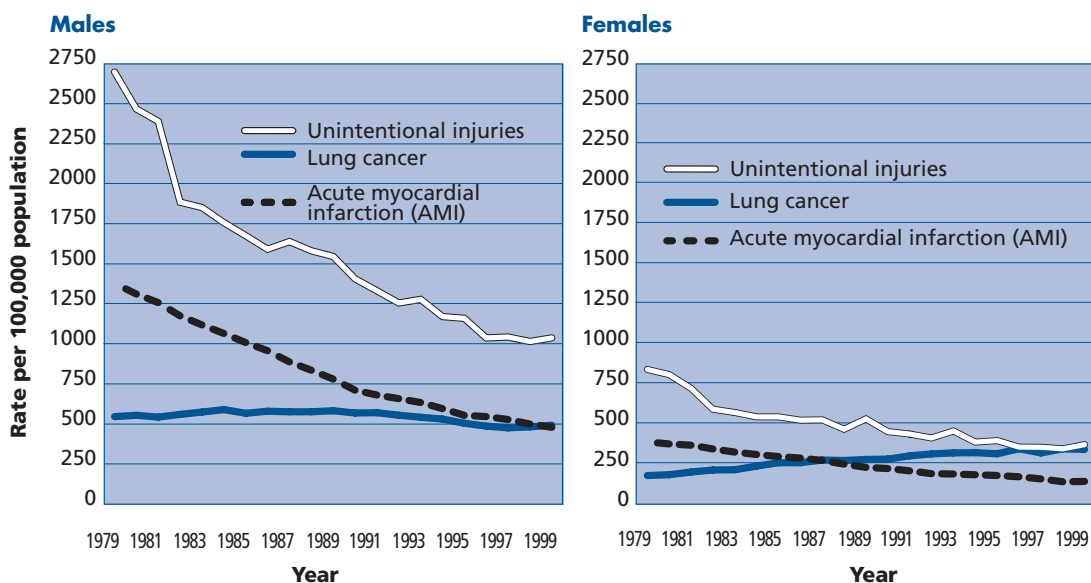
By Sex, Selected Causes of Death, Canada, 1999



Source: Statistics Canada, Canadian Vital Statistics, Death Database, Demography Division (population estimates)  
 Note: Rates are calculated using the population aged 0 to 74.

## Potential Years of Life Lost

By Sex, Selected Causes, Canada, 1979 to 1999



Source: Statistics Canada, Canadian Vital Statistics, Death Database, Demography Division (population estimates)  
 Note: Rates are calculated using the population aged 0 to 74.

In Canada from 1979 to 1999, the potential years of life lost declined significantly from causes such as unintentional injuries and acute myocardial infarction. The declines have been more dramatic for men than for women. The potential years of life lost per 100,000 population due to lung cancer has been slowly decreasing among men and increasing among women.

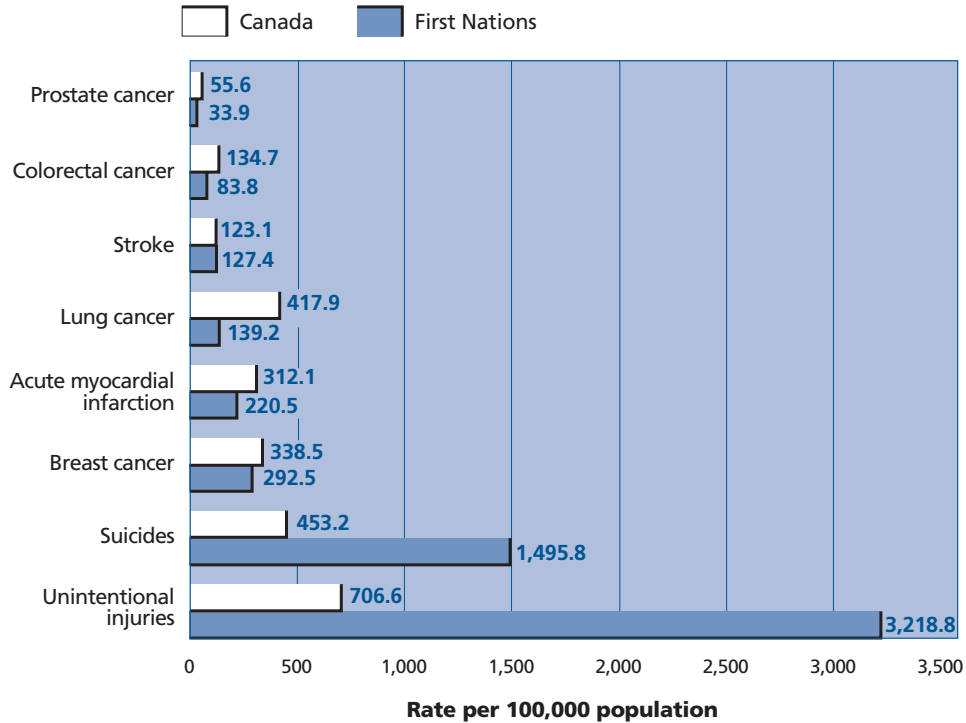
First Nations populations lose approximately five times as many potential years of life per 100,000 population due to unintentional injury and three times as

many due to suicide as does the Canadian population overall. For most of the remaining causes, which generally occur in older populations, potential years of life lost is lower for First Nations.

**Comments:** Potential years of life lost is the aggregate number of years of potential life not lived because members of the population die “prematurely” (in this instance, before age 75). A downward trend reflects success in preventing premature loss of life in the population.

## Potential Years of Life Lost

By Selected Causes, Canada and First Nations (on reserve\*), 1999



Sources: Statistics Canada, Canadian Vital Statistics, Death Database, and Demography Division (population estimates); Health Canada, First Nations and Inuit Health Branch, in-house statistics  
 Note: Rates are calculated using the population aged 0 to 74.  
 \*Contains data from British Columbia and Alberta that is both on and off reserve.

## Prevalence of diabetes

**Description:** Prevalence of diabetes

**Results:** Based on provisional data reported for 1997–98 to 1999–2000, the prevalence of diabetes in the Canadian population 20 years of age and over is increasing. In 1999–2000, 5.4% of Canadian men and 4.9% of women had diabetes, up from 4.5% of men and 4.1% women in 1997–98.

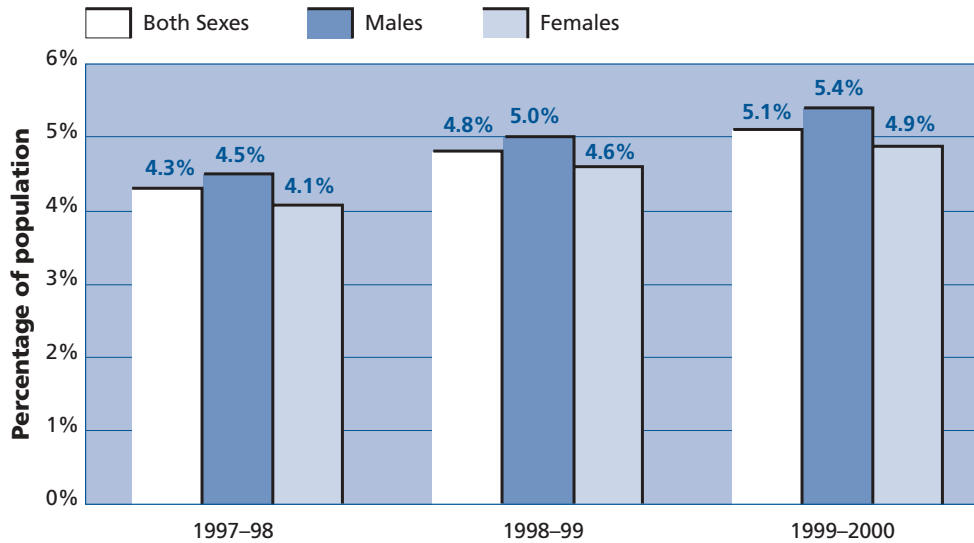
In a recent Health Canada commissioned survey,<sup>4</sup> the self-reported prevalence of diabetes among First Nations respondents was estimated to be 9.7%, suggesting that diabetes prevalence among First Nations populations is two to three times that of the Canadian population as a whole. However, diabetes rates among First Nations on reserve populations can vary greatly by

<sup>4</sup> Ipsos-Reid, *Awareness and Knowledge Levels of Type 2 Diabetes Among Aboriginal Peoples in Canada* (2002).



## Prevalence of Diabetes

By Sex, Population 20 Years of Age and Over, Canada,\* 1997–98 to 1999–2000



Source: Health Canada, National Diabetes Surveillance System

Note: Data are provisional.

\*Reported data for Canada excludes New Brunswick, Newfoundland and Labrador, Nunavut, and Northwest Territories.

age, sex and community. Previous studies have shown that in some cases, diabetes prevalence can be as high as 30%.<sup>5</sup>

**Comments:** Data for the Canadian population come from the National Diabetes Surveillance System. As this is a new data system, initial prevalence may be underestimated. These data are provisional and it is expected that data quality will improve in the next few years.

**Prevalence** — The number of existing instances of a given illness, at a given time, or over a specified period of time, in a defined population.

## Quality of Service

Indicators in this category reflect several aspects of quality, such as accessibility (the service is readily available and received within a reasonable waiting period), acceptability (the service provided meets the clients' needs), appropriateness (the service is received in an appropriate health care setting) and effectiveness (an effective health care intervention is received). There are limitations in the data and these indicators do not address all dimensions of service quality. They are derived from administrative data or survey information.

<sup>5</sup> T. K. Young, J. O'Neil, B. Elias, *et al.* Chronic Diseases. In: First Nations and Inuit Regional Health Survey, Ottawa: First Nations and Inuit Regional Health Survey National Steering Committee (1999).

## 8. Waiting times for key diagnostic and treatment services

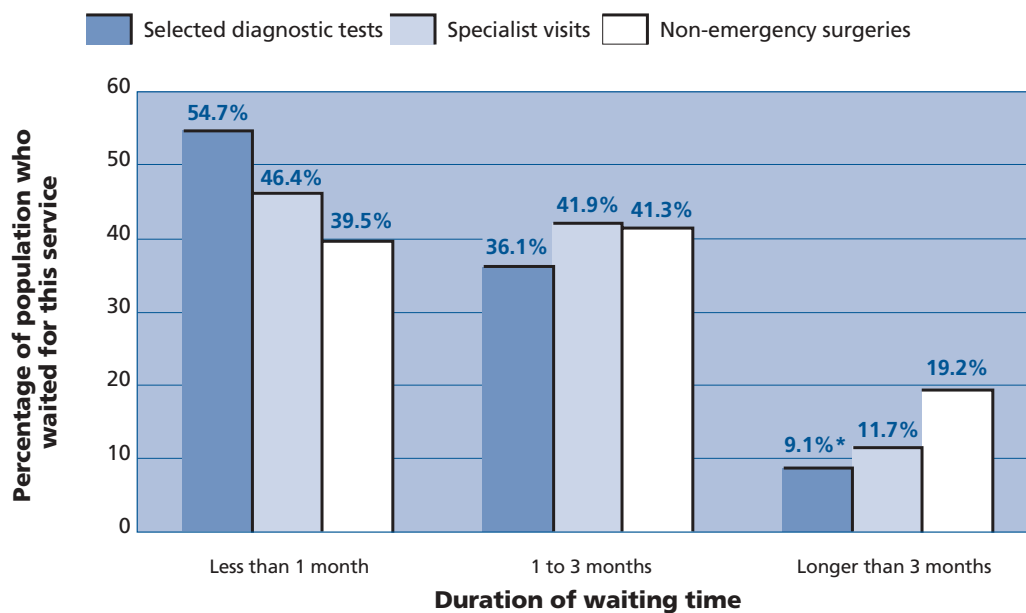
**Description:** Reported waiting times for visits to specialists, diagnostic tests and surgery

**Results:** The self-reported median wait to consult a specialist or receive non-emergency surgery in Canada was 4.3 weeks. The self-reported median waiting time for selected diagnostic tests was 3 weeks.

Fewer than 20% of the individuals who waited for specialized services reported that waiting for care affected their lives.<sup>6</sup>

### Distribution of Waiting Times

By Duration of Waiting Time, Canada, 2001



Source: Statistics Canada, *Access to Health Care Services in Canada*, 2001  
\*Use with caution (high sampling variability).

<sup>6</sup> Statistics Canada, *Access to Health Care Services in Canada* (2001).

Service	Median* Wait (Weeks)
Selected diagnostic tests	3.0**
Specialist visits	4.3
Non-emergency surgeries	4.3

Source: Statistics Canada, *Access to Health Care Services in Canada*, 2001

\* Median wait: Half the respondents waited longer, half less.

\*\*Use with caution (high sampling variability).

**Comments:** Using administrative records to systematically collect and report waiting time data is relatively new in Canada. Jurisdictions are working toward comparable and consistent methodologies, in particular, approaches that measure waiting times by severity of illness.





To get information on access and waiting times at a national level, Statistics Canada conducted a special household survey in 2001 (*Access to Health Care Services in Canada*).

For First Nations populations, primary care is provided on reserve and procedures requiring hospitalizations are provided in provincial hospitals. Because the hospitalization information is captured in the provincial administrative databases, it is difficult to assess waiting lists. However, according to preliminary data from the *National Aboriginal Health Organization Public Opinion Poll on Health Care* (2002), 78% of First Nations on reserve respondents had access to a nurse and 59% had easy access to a family physician.

## 9. Patient satisfaction

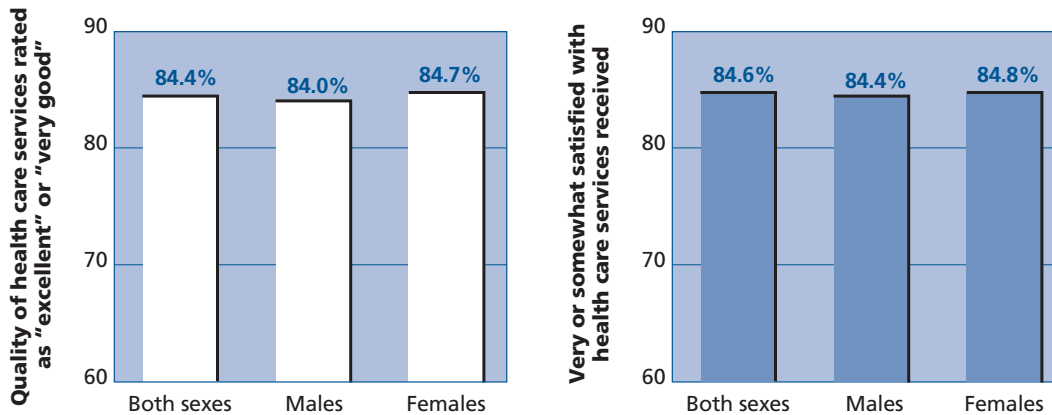
### Description: Patient satisfaction

**Results:** In 2000–01, 84.4% of Canadians rated the quality of the overall health services they received as being either excellent or very good and 84.6% reported that they were very or somewhat satisfied with those services.

Preliminary data from the *National Aboriginal Health Organization Public Opinion Poll on Health Care* (2002) indicate that 66% of First Nations on reserve respondents felt that the health care they had received in the last year was good to excellent, and only 9% rated it as poor.

### Patient Satisfaction — Overall Health Services

By Sex, Canada, 2000–01



Source: Statistics Canada, *Canadian Community Health Survey*, 2000–01  
Note: Expressed as percent of household population aged 15 and over who reported receiving health care services in the past 12 months.

**Comments:** The indicators for the Canadian population as a whole apply to adults (15 years or older living in private households) who received health care services over a 12-month period. The

individuals assessed the overall health care services received, services received in a hospital, services received from a family doctor or other physician, and community-based services.

**Veterans Affairs Canada** has authority for more than 6,700 “Priority Access Bed” facilities across Canada, including 710 beds at the Veterans Affairs Canada hospital at Saint-Anne-de-Bellevue, Quebec. Approximately 5,300 veterans are receiving care in these beds, and more than 3,000 veterans are receiving care in about 1,500 long-term care facilities in their communities through the **Veterans Independence Program**, a national long-term/home care community-based program. Survey results from 2000–01 showed an overall client satisfaction rate of 93%.<sup>7</sup>

### Canadian Forces

According to the *Canadian Forces Health and Lifestyle Information Survey* (2000) ([www.forces.gc.ca/health/engraph/home\\_e.asp](http://www.forces.gc.ca/health/engraph/home_e.asp)):

- 38% of Regular Force members strongly agree or agree that they are satisfied with the Canadian Forces medical system’s knowledge of the health and well-being issues facing the Canadian Force member;
- 35% of Regular Force members strongly agree or agree that they are satisfied with the personal health information conveyed by Canadian Forces medical system providers;
- 33% of Regular Force members strongly agree or agree that they have confidence in the level of care provided; and
- 26% of Regular Force members feel they did not receive a needed health care service in the preceding 12 months.

<sup>7</sup> Veterans Affairs Canada. *Visit with a Veteran in a Priority Access/Contract or Community Facility and Visit with a Family Member of a Veteran in a Priority Access/Contract or Community Facility Survey* (2000–01).

## 10. Hospital re-admission for selected conditions

### **Description: Re-admission for acute myocardial infarction (AMI)**

**Results:** The three-year 1997–1999 average re-admission rate for acute myocardial infarction (AMI) in Canada was 7.3% of AMI cases.<sup>8</sup>

### **Description: Re-admission for pneumonia**

**Results:** The three-year 1997–1999 average re-admission rate for pneumonia in Canada was 3.3% of pneumonia cases.<sup>9</sup>

## 11. Access to 24/7 first contact health services

### **Description: Percent of population having a regular family physician**

**Results:** In Canada, 87.7% of respondents reported having a regular family physician in 2001.<sup>10</sup>

Preliminary data from the *National Aboriginal Health Organization Public Opinion Poll on Health Care* (2002) indicate that 77% of members of First Nations on reserve have a regular family physician.

### **Description: Estimated population that had difficulty obtaining: routine or ongoing health care, health information or advice, immediate care for a minor health problem**

**Results:** Survey results for 2001 show that 93.7% of the Canadian population sought at least one type of first contact service over the preceding 12-month period for themselves or for a family member.

An estimated 4.3 million Canadians indicated that they had difficulties accessing first contact services: 2.5 million Canadians for routine care, 1.5 million for health information or advice and 1.6 million for immediate care for a minor health problem. Some respondents noted difficulties accessing more than one service.

The table below shows the percentage of the population who needed these services and reported difficulty obtaining them during regular hours, evenings and weekends and the middle of the night.

According to preliminary data from the *National Aboriginal Health Organization Public Opinion Poll on Health Care* (2002), 17% of survey respondents felt that in the past 12 months, there had been times when they

Type of Service	Regular Hours	Evenings and Weekends	Middle of the Night
Routine care	8.6%	8.1%	n/a
Health information or advice	10.1%	10.6%	5.5%*
Immediate care for a minor health problem	11.4%	16.4%	12.4%*

Source: Statistics Canada, *Access to Health Care Services in Canada*, 2001

\*Use with caution (high sampling variability).

<sup>8</sup> Canadian Institute for Health Information, Hospital Morbidity database.

<sup>9</sup> Ibid.

<sup>10</sup> Statistics Canada, *Access to Health Care Services in Canada* (2001).

needed health care, but did not receive it. The primary reasons reported for not receiving care were that waiting times were too long, the services sought were not available in the area, and the services sought were not available at the time required.

**Comments:** Twenty-four hours a day, 7 days a week (24/7) health services include information and advice and direct treatment services, which may be obtained through first contact with the health system, to meet immediate or routine health care needs.

For First Nations populations, there is usually timely access to care for non-urgent conditions through the local nursing station. More serious conditions often require transport to a provincial hospital or other treatment facility.

## 12. Home and community care services

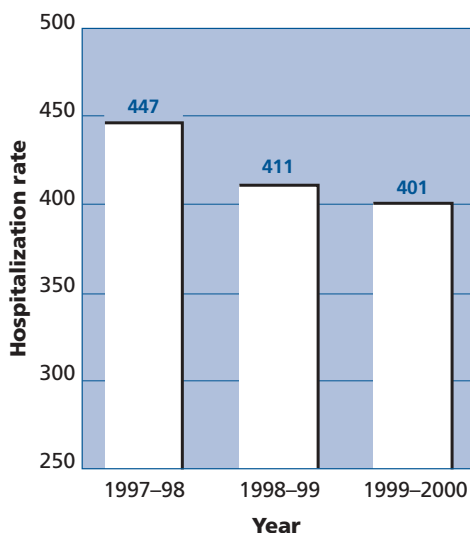
**Description:** Ambulatory care sensitive conditions

**Results:** Canada's hospitalization rates for ambulatory care sensitive conditions have been declining in recent years, from 447 admissions per 100,000 population in 1997–98 to 401 in 1999–2000.

**Comments:** Ambulatory care sensitive conditions, such as asthma and diabetes, are long-term health conditions that can often be managed with timely and effective treatment in the community, without hospitalization.

### Ambulatory Care Sensitive Conditions

Age Standardized, Canada, 1997–98 to 1999–2000



Sources: Canadian Institute for Health Information, Hospital Morbidity Database; Statistics Canada, Canadian Vital Statistics, 1991 Census of Population  
Notes: Expressed as rate per 100,000 population. Age standardized to the 1991 Canadian population.

Rates of hospitalization for ambulatory care sensitive conditions are one indicator of appropriate access to community-based care.

Based on provincial data from British Columbia, Manitoba and Saskatchewan, Health Canada's First Nations and Inuit Health Branch estimates that the rate of hospitalization for ambulatory care sensitive conditions in First Nations populations on and off reserve is four times as great (1,807 per 100,000 population in 1997–98) as for the Canadian population as a whole.

Since 1981, **Veterans Affairs Canada** has administered the Veterans Independence Program, a national long-term/home care community-based program, offering self-managed care based on an assessment of needs, development of a care plan and follow-up monitoring. In 2001, the program provided services to approximately 69,000 veterans.

### 13. Public health surveillance and protection

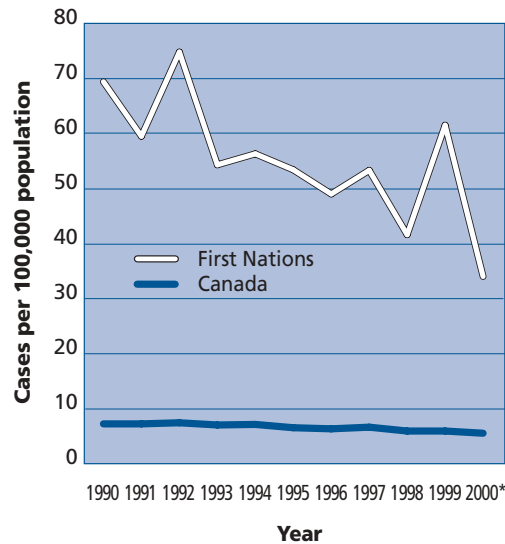
**Description:** Tuberculosis incidence rate

**Results:** The incidence of tuberculosis in the Canadian population has been relatively low and stable in the last decade. In 2000, the rate was 5.5 cases per 100,000 population.

**Incidence** — The number of new instances of illness commencing, or of persons falling ill, during a given period, in a specified population.

### Tuberculosis Incidence Rates

Canada and First Nations (on reserve), 1990 to 2000\*



Sources: Health Canada, Canadian Tuberculosis Reporting System; First Nations and Inuit Health Branch, in-house statistics  
\*Data for 2000 are preliminary.

In contrast, tuberculosis rates for First Nations populations on reserve are 8 to 10 times higher than for the Canadian population. Tuberculosis eradication programs have been successful. However, clustered outbreaks continue, particularly in western Canada and the territories.

**Description: Reported HIV diagnoses**

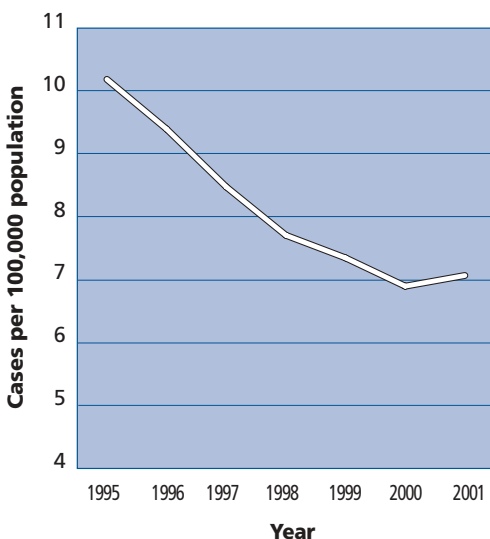
**Results:** Compared with other developed countries, Canada has a rate of reported HIV diagnoses that is about in the middle of the range. According to the Centers for Disease Control and Prevention, the rate of newly diagnosed HIV cases in the United States is approximately twice the Canadian rate.<sup>11</sup>

Between 1995 and 2000, positive HIV test reports declined in Canada, from 10.2 to 6.9, but increased in 2001 to 7.1 per 100,000 population.

Among Aboriginal populations, about half of those who test positive for HIV are female. In the non-Aboriginal population,

**Reported HIV Diagnoses**

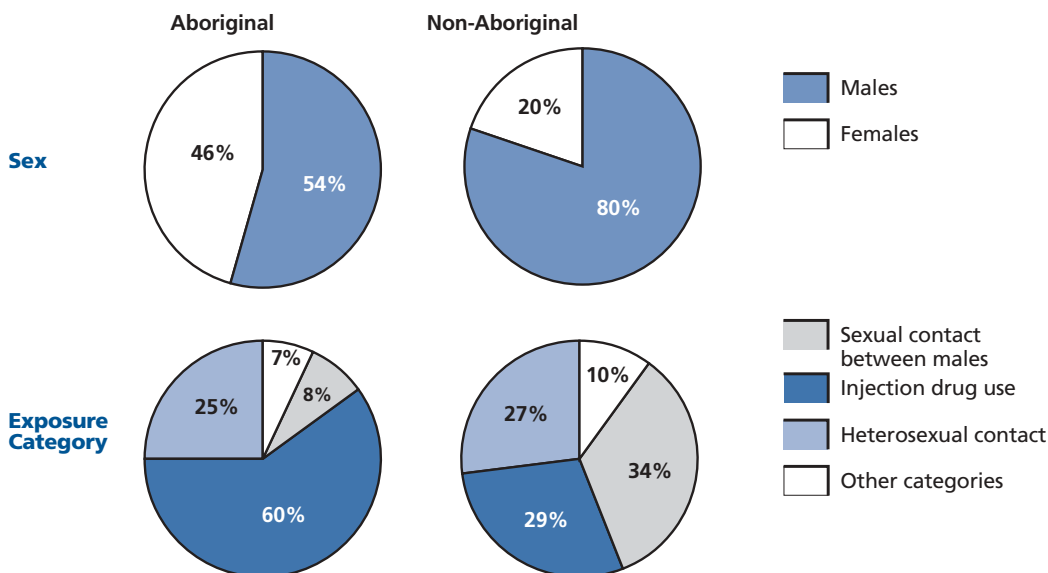
Canada, 1995 to 2001



Source: Health Canada, *HIV and AIDS in Canada*, Surveillance report to December 31, 2001

**Positive HIV Test Reports, Aboriginal and Non-Aboriginal Persons**

By Sex and Exposure Category, Canada, \* 1998–2001\*\*



Source: Health Canada, *HIV / AIDS among Aboriginal Persons in Canada: A Continuing Concern, HIV/AIDS Epi Update*, April 2002  
 \*Provinces reporting ethnicity: British Columbia, Yukon, Alberta, Manitoba, Saskatchewan, Prince Edward Island, Newfoundland and Labrador.  
 \*\*Data presented are for the years 1998 to 2001 inclusive.

<sup>11</sup> Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report*; 13 (No. 1) (2001). Note: The data for the United States are from 34 states that have HIV reporting.

80% of the positive HIV test reports are for males. The Aboriginal population has a higher proportion of reports attributed to injection drug use and a smaller proportion attributed to sexual contact between males than does the non-Aboriginal population. The annual proportion of AIDS cases attributed to Aboriginal persons increased from less than 1.0% before 1990 to 10.0% in 1999.<sup>12</sup>

*Comments:* Data are only available for those who came forward for testing and were reported to Health Canada. As a result, data will underestimate the total number of people infected with HIV.

The **Correctional Service of Canada** is facing increasing pressure to provide a complex array of health services to inmates, increasing numbers of whom are being admitted with serious, multiple health problems associated with and exacerbated by substance abuse, chronic disease, mental health issues and a history of poor health habits. Inmates in federal institutions have much higher levels of HIV and Hepatitis C than the Canadian population as a whole. For example, about 2% of inmates are known to be infected with HIV,<sup>13</sup> whereas in 1999, the estimated prevalence rate for the Canadian population was approximately 0.2%.<sup>14</sup> About 70% of inmates are admitted with substance abuse problems, 18% have been previously hospitalized in a mental health facility and 9% have a current psychiatric diagnosis.

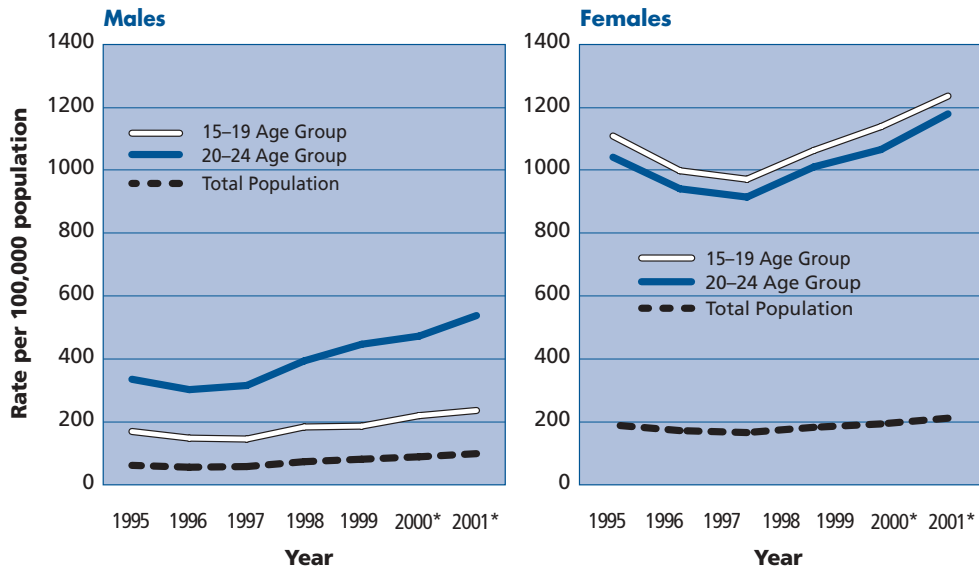
<sup>12</sup> Health Canada, *HIV/AIDS Epi Update* (April 2002).

<sup>13</sup> Correctional Service of Canada. Health Services Division: National Headquarters, unpublished monthly statistics (2001).

<sup>14</sup> Health Canada, *HIV/AIDS Epi Update* (April 2002).

## Chlamydia Incidence

By Sex and Selected Age Groups, Canada, 1995 to 2001\*



Source: Health Canada, Centre for Infectious Disease Prevention and Control, Division of Sexual Health Promotion and STD Prevention and Control

\* 2000 and 2001 figures are preliminary and are subject to change.

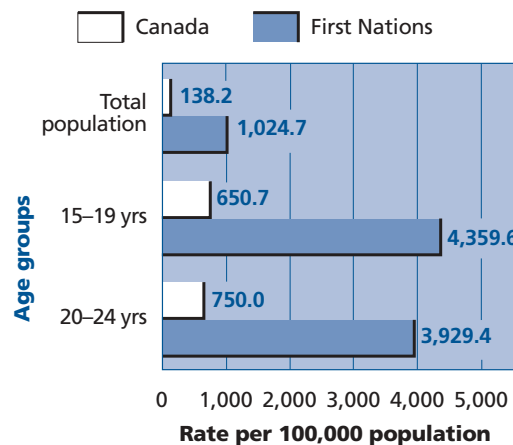
### Description: Chlamydia incidence rate

**Results:** From 1995 to 2001, the incidence of chlamydia increased in Canada from 126.8 to 161.0 cases per 100,000 population. The rate was higher in females than in males. Preliminary figures for 2001 show that females 15–19 years of age had the highest reported rate, almost six times the national rate for females.

In 1999, the incidence rates of reported chlamydia in First Nations populations on reserve were seven times higher than in the Canadian population overall.

## Chlamydia Incidence

By Selected Age Groups, Canada and First Nations (on reserve), 1999



Sources: Health Canada, Centre for Infectious Disease Prevention and Control Division of Sexual Health Promotion and STD Prevention and Control; Health Canada, First Nations and Inuit Health Branch, in-house statistics

Note: First Nations data covers all regions except Alberta, and parts of Quebec and Ontario.



## 14. Health promotion and disease prevention

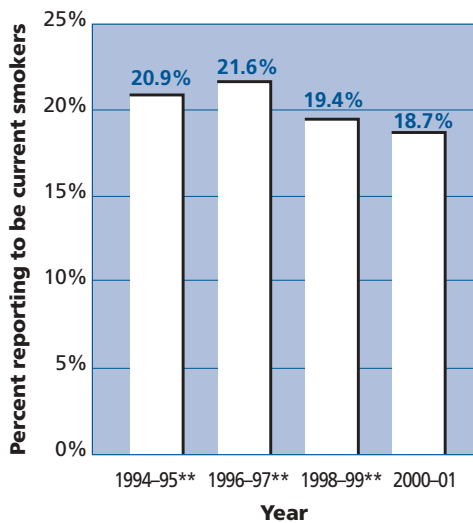
### Description: Percent of current teenaged smokers

**Results:** The prevalence of smoking among teenagers continues to be high, with approximately one in five youths (aged 12–19) reporting that they smoke.

In 2000–01, 19.8% of young women reported that they were smokers compared with 17.6% of young men.

### Current Teenaged Smokers

Canada, \* 1994–95 to 2000–01



Source: Statistics Canada, *National Population Health Survey*, 1994–95, 1996–97 and 1998–99, cross-sectional sample, health file; *Canadian Community Health Survey*, 2000–01  
 \*Includes population aged 12 to 19.  
 \*\*Data for *National Population Health Survey* excludes the territories.

**Comments:** According to the *Canadian Community Health Survey* in 2001, 39.3% of the non-smoking population aged 12–19 years reported being exposed to second-hand smoke.

Tobacco use is a leading cause of preventable illness and death in Canada. According to recent results from the *Canadian Tobacco Use Monitoring Survey* (conducted by Statistics Canada on behalf of Health Canada), smoking rates in the overall Canadian population continue to drop. The survey results revealed that in 2001, 5.4 million people (or 22% of the population aged 15 and over) were smokers, compared with 24% in 2000 and 25% in 1999. The majority of new smokers are adolescents, and it is important to understand the process leading to regular smoking and to monitor the prevalence among Canadian youth.

In 2002, 48.3% of First Nations on reserve respondents (aged 18 and over) participating in a Health Canada–commissioned survey<sup>15</sup> reported that they smoke.

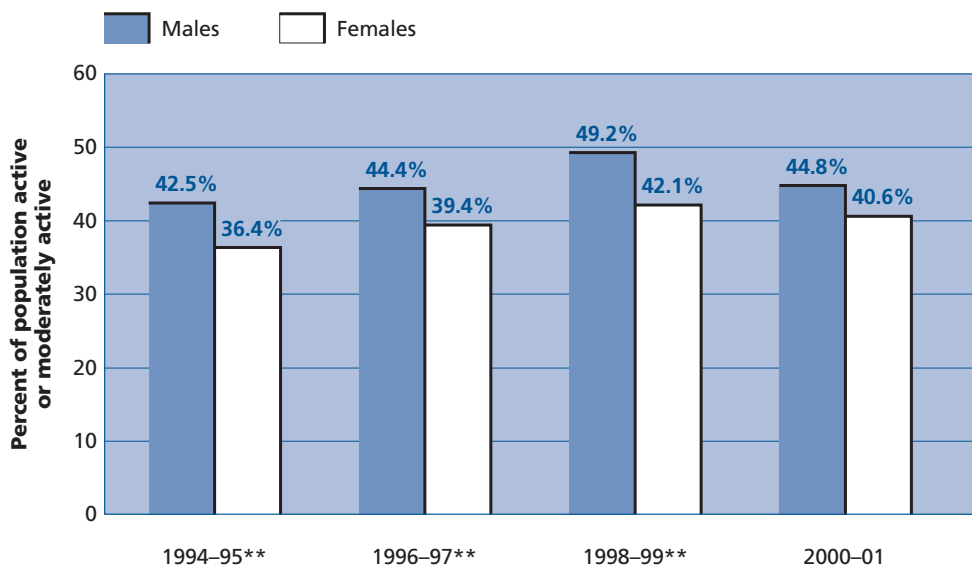
### Description: Physical activity

**Results:** For each year shown, more Canadian men than women reported that they engaged in regular physical activity. In 2000–01, 44.8% of Canadian men reported that they were either active or moderately active, compared with 40.6% of Canadian women.

<sup>15</sup> Health Canada, First Nations and Inuit Health Branch, secondary analysis of Ipsos-Reid, *Awareness and Knowledge Levels of Type 2 Diabetes Among Aboriginal Peoples in Canada* (2002).

## Physical Activity

By Sex, Canada,\* 1994–95 to 2000–01



Source: Statistics Canada, *National Population Health Survey*, 1994–95, 1996–97 and 1998–99, cross-sectional sample, health file; *Canadian Community Health Survey*, 2000–01

\* Includes household population 12 years of age and over.

\*\* Data for *National Population Health Survey* excludes the territories.

In a 2002 Health Canada–commissioned survey,<sup>16</sup> the majority (76.4%) of First Nations on reserve respondents rated themselves as either very fit or somewhat fit, while only 5.4% rated themselves as being not fit at all.

According to the *Canadian Forces Health and Lifestyle Information Survey* (2000), 36% of the Regular Force members were physically active and 27% were moderately active.

**Comments:** Maintaining physical activity is associated with a range of health benefits, including heart health benefits and reduced likelihood of depression.

The 2000–01 data reported for the Canadian population come from the *Canadian Community Health Survey* and, for the first time, include data from the territories and the provinces.

Physical activity levels are defined according to units of kilocalorie/kilogram/day (KKD) where 1 KKD is approximately the energy expended in walking or running one kilometre. The proportion of the population deemed to engage in regular physical activity included those classified as *active* (expending 3.0 or more KKD) or *moderately active* (expending 1.5–2.9 KKD).

<sup>16</sup> Health Canada, First Nations and Inuit Health Branch, secondary analysis of Ipsos-Reid, *Awareness and Knowledge Levels of Type 2 Diabetes Among Aboriginal Peoples in Canada* (2002).



## HEALTH INFORMATION — CHALLENGES AND NEXT STEPS

*L*arge amounts of information are collected on the health of Canadians each year. This includes vital statistics such as births and deaths, information on people's contacts with the health care system, and information from outside the traditional health sector on such important matters as traffic injuries, infectious and communicable diseases, housing and employment. These data are collected through hospital administrative systems, surveillance systems that monitor new and emerging health problems, and through national, provincial and local health surveys.

Historically, the collection of population health statistics has been sporadic in Canada. There is not yet a fully coordinated, comprehensive, long-term and fully funded approach to the collection of these statistics. Considerable work remains to better collect, develop, identify and report on data in a consistent and comparable way, and to improve the quality of the data.

The Canadian Institute for Health Information is working with jurisdictions to build on administrative data generated from the health care system to develop and report on indicators of health system performance. Statistics Canada is further developing its *Canadian Community Health Survey* to provide timely and targeted information at a regional level. Jurisdictions are working individually and collectively to improve and report on health

measures. The work of the Performance Indicators Reporting Committee, which populated the September 2000 framework provided by First Ministers and identified indicators for this report, will continue its work under the auspices of a new federal/provincial/territorial committee on governance and accountability. The next reports on comparable health indicators are scheduled for November 2004.

There are weaknesses in the data collected on the health of Canadians, especially within specific demographic groups such as Aboriginal people. For example, the inability to consistently track treatment for Aboriginal clients once they are in a provincial system, low population numbers and under-coverage in 1996 Census statistics, among other problems, make

Aboriginal health information less reliable than information for Canadians as a whole. Moreover, there is little information available in the health system to distinguish between the various Aboriginal groups.

There are also challenges in collecting information on the health of those Canadians served by the federal government. Often the health services provided to these clients are delivered by a combination of federal and provincial or territorial systems, making it difficult to extract health data from administrative sources.

The Government of Canada is committed to providing information on the health of Canadians and the health care system. In 1999, \$95 million was invested over four years to strengthen the capacity of all jurisdictions to report. In 2001, the federal government renewed this commitment, providing another \$95 million for an additional four years.

Recent new investments in health information for First Nations on reserve populations have been made to address data quality and availability issues. In partnership with Aboriginal organizations, the federal government is developing surveys and databases that are comparable to those for the non-Aboriginal population. However, this remains an ongoing challenge and there is a need for population-specific identifiers in health registries, which would enable us to track health services and outcomes for the Aboriginal population.

# AUDITOR'S REPORT

OFFICE OF THE AUDITOR GENERAL



BUREAU DU VÉRIFICATEUR GÉNÉRAL

## AUDITOR'S REPORT

To the Minister of Health

I have audited the national health indicators presented in the Federal Government report on comparable health indicators of September, 2002 based on the commitment made in the First Ministers' Meeting Communiqué on Health, of September 11<sup>th</sup>, 2000. The Conference of Deputy Ministers defined the specific indicators to be regularly reported to Canadians. The preparation of this health indicators report is the responsibility of the Federal Government and my responsibility is to express an opinion on the health indicators based on my audit. However, my responsibility does not extend to assessing the performance achieved or the relevance of the health indicators.

Except as explained in the following three paragraphs, I conducted my audit in accordance with standards for assurance engagements of the Canadian Institute of Chartered Accountants. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the health indicators are free of significant misstatements and meet suitable criteria. To this end, I audited these health indicators to determine whether they meet the criteria set out in Appendix 1. My audit included examining, on a test basis, evidence supporting the health indicators and disclosures. My audit also included assessing significant judgements made by management in the Federal Government report. As well, my audit was limited to information related to the most recent year in which each indicator was reported.

Data used for seven indicators were drawn from the relevant Canadian Institute for Health Information (CIHI) databases:

- 30-day acute myocardial infarction mortality rate,
- 30-day stroke mortality rate,
- total hip replacement rate,
- total knee replacement rate,
- hospital re-admission rate for acute myocardial infarction,
- hospital re-admission rate for pneumonia, and
- hospitalization rate for ambulatory care sensitive conditions.

Documentation of the CIHI quality assurance process for the systems that support the above indicators is inadequate. As well, the three-year re-abstraction study, which will provide information on the quality of the input data, will not be completed for another two years. Therefore, I am unable to form an opinion on the accuracy of the data or on the adequacy of disclosure for the seven indicators.

National data for eight disease surveillance indicators were drawn from three Health Canada databases:

- invasive meningococcal disease incidence rate,
- measles incidence rate,
- haemophilus influenzae b (invasive) disease incidence rate for children,
- prevalence of diabetes,

- tuberculosis incidence rate,
- reported HIV diagnosis,
- verotoxigenic E. coli incidence rate, and
- chlamydia incidence rate.

Participation in these databases is voluntary, and there is a lack of formal federal/provincial/territorial agreements on data sharing, data standards and data definitions. The quality assurance processes for these databases are inadequate to ensure the accuracy of the data. Health Canada states in the federal health indicators report that improvements are required on data quality. Therefore, I am unable to form an opinion on the accuracy of the data or on the adequacy of disclosure for these indicators.

The Federal Government report presents health indicators for all of Canada as well as for specific populations. Of the specific populations that receive health services through the Federal Government, comparable data were reported only for First Nations populations. Data were drawn from multiple sources and different levels of government. There is also a lack of common data standards and data definitions. The quality assurance processes for these indicators are inadequate to ensure the accuracy of the data. Health Canada states in the federal health indicators report that work is required on the data quality and availability of First Nations data. Therefore, I am unable to form an opinion on the accuracy of the First Nations data or on the adequacy of disclosure for these indicators.

In my opinion, except for the 15 indicators specifically mentioned in the third and fourth paragraphs above and except for the indicators for First Nations populations discussed in the fifth paragraph, the 43 remaining health indicators included in the Federal Government report and subject to my audit are, in all significant respects, presented fairly in accordance with the criteria in Appendix 1 and provide the information required by the public reporting commitment of the First Ministers. Furthermore, departures from criteria are stated and properly described in Annex 1 of the federal report for nine of the health indicators.

Management reported the absence of nine health indicators and explained that data were derived from hospital and facility administrative data that are not yet standardized or collected comparably across jurisdictions.

The Federal Government report includes comparative performance indicators relating to foreign governments. I have not audited any data from foreign sources that are included in this report.

I am encouraged by the work undertaken by Health Canada in the preparation of the first federal health indicators report.



Sheila Fraser, FCA  
Auditor General of Canada  
Ottawa, September 9<sup>th</sup>, 2002

## **APPENDIX 1: Audit Criteria**

Health Canada has acknowledged the suitability of the following criteria for the Federal Government health report:

### **Complete**

The health indicators reported meet all performance measurement and reporting requirements of the commitment of the First Ministers' Meeting Communiqué on Health. The health indicators comply with the definitions, technical specifications and standards of presentation approved by the Conference of Deputy Ministers.

### **Accurate**

The health indicators reported adequately reflect the facts, to an appropriate level of accuracy.

### **Adequate disclosure**

The health indicators are defined and, their significance and limitations are explained. The report states and properly describes departures from what was approved by the Conference of Deputy Ministers and explains plans for the future resolution of the non-compliance issue.





# ANNEX 1 — COMPARABLE HEALTH INDICATORS

## List of 67 indicators agreed to by federal/provincial/territorial jurisdictions

In September 2000, First Ministers directed Canada’s Health Ministers to develop a framework of jointly agreed comparable indicators of health status, health outcomes and quality of service. First Ministers identified 14 areas for reporting, and jurisdictions, working with the Performance Indicators Reporting Committee, chaired by Alberta, have agreed to 67 specific indicators.

The federal report includes data on 58 of these 67 indicators at a national level. The areas that we cannot report on are derived from hospital and facility administrative data that are not yet standardized or collected comparably across jurisdictions. The report also includes information on First Nations populations for 38 of these indicators and supplementary information for other populations for whom the federal government has particular responsibilities in the area of health care delivery such as veterans, military personnel and inmates of federal penitentiaries.

INDICATOR AREA	INDICATOR AND PIRC CODE	INDICATOR NUMBER	FEDERAL REPORT	
			Canada	First Nations
<b>Health Status</b>				
1 Life expectancy	1a Life expectancy	1	✓	*
	1b Disability-free life expectancy	2	✓	*
2 Infant mortality	2 Infant mortality	3	✓	*
3 Low birth weight	3 Low birth weight	4	✓	*
4 Self-reported health	4 Self-reported health	5	✓	*
<b>Health Outcomes</b>				
5 Change in life expectancy	5a Mortality rate for lung cancer	6	✓	*
	5a Mortality rate for prostate cancer	7	✓	*
	5a Mortality rate for breast cancer	8	✓	*
	5a Mortality rate for colorectal cancer	9	✓	*
	5a Mortality rate for acute myocardial infarction	10	✓	*
	5a Mortality rate for stroke	11	✓	*
	5b Five-year relative survival rate for lung cancer	12	✓	

INDICATOR AREA	INDICATOR AND PIRC CODE	INDICATOR NUMBER	FEDERAL REPORT	
			Canada	First Nations
	5b Five-year relative survival rate for prostate cancer	13	✓	
	5b Five-year relative survival rate for breast cancer	14	✓	
	5b Five-year relative survival rate for colorectal cancer	15	✓	
	5c 30-day acute myocardial infarction mortality rate	16	✓	
	5d 30-day stroke mortality rate	17	✓	
	5e 365-day survival rate for acute myocardial infarction	18		
	5f 180-day survival rate for stroke	19		
6 Improved quality of life	6a Total hip replacement rate	20	✓	*
	6b Total knee replacement rate	21	✓	*
7 Reduced burden of disease, illness and injury	7a Incidence rate for lung cancer	22	✓	*
	7a Incidence rate for prostate cancer	23	✓	*
	7a Incidence rate for breast cancer	24	✓	*
	7a Incidence rate for colorectal cancer	25	✓	*
	7b Potential years of life lost due to lung cancer	26	✓	*
	7b Potential years of life lost due to prostate cancer	27	✓	*
	7b Potential years of life lost due to breast cancer	28	✓	*
	7b Potential years of life lost due to colorectal cancer	29	✓	*
	7b Potential years of life lost due to acute myocardial infarction	30	✓	*
	7b Potential years of life lost due to stroke	31	✓	*
	7b Potential years of life lost due to suicide	32	✓	*
	7b Potential years of life lost due to unintentional injury	33	✓	*
	7ci Invasive meningococcal disease	34	✓	
	7cii Measles	35	✓	*
	7ciii Haemophilus influenzae b (invasive) (Hib) disease	36	✓	*
	7d Prevalence of diabetes	37	✓	*

INDICATOR AREA	INDICATOR AND PIRC CODE	INDICATOR NUMBER	FEDERAL REPORT	
			Canada	First Nations
<b>Quality of Service</b>				
8 Waiting times for key diagnostic and treatment services	8ai-iii Wait times for cardiac surgery — months to clear wait list; median wait time; distribution of wait times	38		
	8bi-iii Wait times for hip replacement surgery — months to clear wait list; median wait time; distribution of wait times	39		
	8bi-iii Wait times for knee replacement surgery — months to clear wait list; median wait time; distribution of wait times	40		
	8ci-ii Waiting for radiation therapy for breast cancer — weeks to clear current wait list; median wait time	41		
	8ci-ii Waiting for radiation therapy for prostate cancer — weeks to clear current wait list; median wait time	42		
	8dia; 8diia Reported wait times for specialist physician visits — median wait time; distribution of reported wait times	43	✓	
	8dib; 8diib Reported wait times for diagnostic services — median wait time; distribution of wait times	44	✓	
	8dic; 8diic Reported wait times for surgery — median wait time; distribution of wait times	45	✓	
9 Patient satisfaction	9a Overall health care services received	46	✓	*
	9b Services received in a hospital	47	✓	
	9c Services received from a family doctor or other physician	48	✓	
	9d Community-based services received	49	✓	
10 Hospital re-admissions for selected conditions	10a Re-admission for acute myocardial infarction	50	✓	
	10c Re-admission for pneumonia	51	✓	
11 Access to 24/7 first contact health services	11a(a)-(b) Difficulty obtaining routine or ongoing health services	52	✓	
	11b(a)-(c) Difficulty obtaining health information or advice	53	✓	
	11c(a)-(c) Difficulty obtaining immediate care	54	✓	
	11d Percent having a regular family doctor	55	✓	*

INDICATOR AREA	INDICATOR AND PIRC CODE	INDICATOR NUMBER	FEDERAL REPORT	
			Canada	First Nations
12 Home and community care services	12a-b Home care admissions; home care admissions, age 75+	56		
	12c Utilization of home care services	57		*
	12d Ambulatory care sensitive conditions	58	✓	*
	13 Public health surveillance and protection	13a Tuberculosis	59	✓
13 Public health surveillance and protection	13b HIV	60	✓	*
	13c Verotoxigenic <i>E. coli</i>	61	✓	
	13d Chlamydia	62	✓	*
	13e Exposure to environmental tobacco smoke	63	✓	
	14 Health promotion and disease prevention	14a Smoking	64	✓
14 Health promotion and disease prevention	14b Physical activity	65	✓	*
	14c Body weight	66	✓	*
	14d Immunization for influenza for 65+	67	✓	

Note: Some indicators (e.g., under indicator areas #8, #11, #12) have several highly related components.

\* Indicates data available for First Nations.

# ANNEX 2 — COMPARABLE HEALTH INDICATORS

## Data Tables

The following indicators were identified through a collaborative federal, provincial and territorial performance indicators reporting process.

The proposal for reporting, which was prepared by the Performance Indicators Reporting Committee, contains descriptions, definitions and rationale for the selection of indicators. The proposal and the technical specifications may be found at: [www.cihi.ca](http://www.cihi.ca).

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3. Low birth weight . . . . .	54
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## Health Outcomes

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a. Mortality rates for lung, prostate, breast and colorectal cancer, acute myocardial infarction (AMI) and stroke . . . . .	59
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c. 30-day acute myocardial infarction mortality rate . . . . .	64
d. 30-day stroke mortality rate . . . . .	64
e-f 365-day survival rate for acute myocardial infarction (AMI) and 180-day survival rate for stroke . . . . .	65
6. Improved quality of life . . . . .	66
a. Total hip replacement rate . . . . .	66
b. Total knee replacement rate . . . . .	67

7. Reduced burden of disease, illness and injury . . . . .	68
a. Incidence rates for lung, prostate, breast and colorectal cancer . . . . .	68
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a. Re-admission for acute myocardial infarction . . . . .	88
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11. Access to 24/7 first contact health services . . . . .	89
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b. Difficulty obtaining health information or advice. . . . .	89
c. Difficulty obtaining immediate care . . . . .	89
d. Percent having a regular family doctor . . . . .	90
12. Home and community care services . . . . .	93
a-b. Home care admissions; home care admissions age 75+. . . . .	93
c. Utilization of home care services. . . . .	93
d. Ambulatory care sensitive conditions (ACSC). . . . .	93
13. Public health surveillance and protection . . . . .	95
a. Tuberculosis. . . . .	95
b. HIV . . . . .	96
c. Verotoxogenic <i>E. coli</i> . . . . .	97
d. Chlamydia. . . . .	98
e. Exposure to environmental tobacco smoke . . . . .	99
14. Health promotion and disease prevention . . . . .	100
a. Smoking. . . . .	100
b. Physical activity . . . . .	101
c. Body weight. . . . .	104
d. Immunization for influenza for 65+ . . . . .	106



# 1. LIFE EXPECTANCY

## 1a. Life expectancy

### Description

The life expectancy for a given population indicates the number of years that a person born in a specific year could be expected to live. It reflects a number of determinants, including educational, social and economic status, as well as the performance of the health system. The figure is usually expressed as life expectancy at birth, however, it can also be expressed as life expectancy at age 65; this number represents how many years beyond the age of 65 that a member of the population would be expected to live.

### Definition

The number of years a person would be expected to live, starting from birth (for life expectancy at birth) or age 65 (for life expectancy at 65), on the basis of the mortality statistics for a given observation period, typically a calendar year.

## CANADA

### Life Expectancy at Birth and at Age 65, by Sex, 1979 to 1999

Year	Life expectancy in years at birth			Life expectancy in years at age 65		
	Both sexes	Males	Females	Both sexes	Males	Females
1979	74.9	71.4	78.8	16.9	14.6	19.0
1980	75.2	71.7	78.9	16.8	14.5	18.9
1981	75.6	72.1	79.3	17.0	14.7	19.2
1982	75.8	72.4	79.4	16.9	14.7	19.1
1983	76.1	72.7	79.7	17.1	14.8	19.2
1984	76.4	73.1	79.9	17.3	15.0	19.4
1985	76.4	73.1	79.9	17.2	14.9	19.3
1986	76.6	73.3	79.9	17.3	15.0	19.3
1987	76.9	73.6	80.3	17.5	15.2	19.5
1988	77.0	73.6	80.3	17.5	15.1	19.5
1989	77.3	74.0	80.6	17.7	15.4	19.7
1990	77.6	74.4	80.8	17.9	15.7	19.9
1991	77.8	74.6	80.9	18.0	15.8	19.9
1992	78.0	74.8	81.2	18.2	15.9	20.1
1993	77.9	74.8	80.9	18.0	15.8	19.9
1994	78.0	75.0	81.0	18.1	16.0	19.9
1995	78.2	75.1	81.1	18.1	16.0	20.0
1996	78.4	75.5	81.2	18.2	16.1	20.0
1997	78.6	75.8	81.3	18.2	16.2	20.0
1998	78.8	76.0	81.5	18.3	16.3	20.1
1999	79.0	76.3	81.7	18.5	16.5	20.3

Source: Statistics Canada, Canadian Vital Statistics, Birth and Death Databases, Demography Division (population estimates)

## FIRST NATIONS

### Life Expectancy at Birth, First Nations (on and off reserve), Selected Years Between 1975 to 2000\*

	Life expectancy in years at birth					
	1975	1980	1985	1990	1995	2000*
<b>Males</b>	59.2	60.9	63.9	66.9	68.0	68.9
<b>Females</b>	65.9	68.0	71.0	74.0	75.7	76.6

Source: Department of Indian Affairs and Northern Development, basic Departmental Data, 2001  
\*2000 data are estimates.

## 1b. Disability-free life expectancy (DFLE)

### Description

A related indicator to life expectancy, disability-free life expectancy indicates how many years an average person would be expected to live an able-bodied life, that is, a life free of moderate or severe disability.

### Definition

The number of years an average individual would be expected to live free of moderate or severe disability, starting from birth (for DFLE at birth) or at age 65 (for DFLE at age 65), on the basis of the mortality statistics and disability prevalence patterns by age and sex for a given observation period, typically a calendar year.

### CANADA AND FIRST NATIONS Disability-Free Life Expectancy at Birth, by Sex, 1996

	Disability-free life expectancy in years	
	Canada	First Nations
<b>Both sexes</b>	68.6	60.7
<b>Males</b>	66.9	58.2
<b>Females</b>	70.2	63.1

Sources: Statistics Canada, Canadian Vital Statistics, Birth and Death Databases, Demography Division (population estimates); 1996 Census (20% sample); Health Canada, First Nations and Inuit Health Branch, in-house statistics

### CANADA Disability-Free Life Expectancy at Age 65, by Sex, 1996

	Disability-free life expectancy in years at age 65
<b>Both sexes</b>	11.7
<b>Males</b>	10.9
<b>Females</b>	12.4

Sources: Statistics Canada, Canadian Vital Statistics, Birth and Death Databases, Demography Division (population estimates); 1996 Census (20% sample)

## 2. INFANT MORTALITY

### Description

The infant mortality rate in a given year is expressed as the number of infants (per 1,000 live births) who died before reaching the age of one. Infants who weighed less than 500 grams at birth are generally not factored into the infant mortality rate.

### Definition

The number of infants who die in the first year of life, expressed as a rate (per 1,000 live births) for that year.

### CANADA Infant Mortality Rate, 1979 to 1999

Year	Infant mortality rate
1979	10.5
1980	10.0
1981	9.1
1982	8.6
1983	8.0
1984	7.7
1985	7.5
1986	7.4
1987	6.9
1988	6.7
1989	6.7
1990	6.2
1991	5.6
1992	5.6
1993	5.5
1994	5.7
1995	5.3
1996	4.8
1997	4.8
1998	4.5
1999	4.4

Source: Statistics Canada, Canadian Vital Statistics, Birth and Death Databases

Note: Rate per 1,000 live births of 500 grams or more.

## FIRST NATIONS

For First Nations and Canada comparisons, infants who weighed less than 500 grams at birth *are* factored into the infant mortality rate.

### Infant Mortality Rates,\* Canada and First Nations (on reserve\*\*), 1979 to 1999

Year	Canada	First Nations
1979	10.9	27.6
1980	10.4	23.7
1981	9.6	21.8
1982	9.1	17.1
1983	8.5	18.2
1984	8.1	18.9
1985	7.9	18.2
1986	7.9	17.5
1987	7.3	12.5
1988	7.2	12.6
1989	7.1	11.8
1990	6.8	11.2
1991	6.4	12.3
1992	6.1	12.8
1993	6.3	10.9
1994	6.3	..
1995	6.1	..
1996	5.6	..
1997	5.5	..
1998	5.3	..
1999	5.3	8.0

Sources: Statistics Canada, Canadian Vital Statistics, Birth and Death Databases; Health Canada, First Nations and Inuit Health Branch, in-house statistics

\* Rates are per 1,000 live births, including those under 500 grams.

\*\* Contains data from British Columbia and Alberta that are both on and off reserve.

.. Indicates no data available.

### 3. LOW BIRTH WEIGHT

#### Description

Low birth weight measures the proportion of newborns whose weight at birth is less than 2,500 grams but at least 500 grams.

#### Definition

The proportion of live births (birth weight known) with a birth weight less than 2,500 grams and at least 500 grams.

#### CANADA Low Birth Weight, 1979 to 1999

Year	Low birth weight rate
1979	5.9
1980	5.8
1981	5.8
1982	5.6
1983	5.5
1984	5.5
1985	5.5
1986	5.4
1987	5.5
1988	5.6
1989	5.5
1990	5.5
1991	5.5
1992	5.4
1993	5.6
1994	5.7
1995	5.8
1996	5.7
1997	5.7
1998	5.7
1999	5.5

Source: Statistics Canada, Canadian Vital Statistics, Birth Database

Notes: Rates are a proportion of all live births.  
Includes birth weight less than 2,500 grams but more than 500 grams.

## FIRST NATIONS

For First Nations and Canada comparisons, infants who weighed less than 500 grams at birth *are* factored into the infant mortality rate.

### Low Birth Weight, Canada and First Nations (on reserve\*), 1999

	Percent of all live births	
	500 to 2,500 grams	Less than 2,500 grams
Canada	5.5	5.6
First Nations	..	6.0

Sources: Statistics Canada; Health Canada, First Nations and Inuit Health Branch, in-house statistics

\* Contains data from British Columbia and Alberta that is both on and off reserve.

.. Indicates data not available.

## 4. SELF-REPORTED HEALTH

### Description

Self-reported health measures the percent of the population (aged 12 and over) who rated their general health as either “very good” or “excellent” in the most recent year for which survey data are available.

### Definition

Percent of the population age 12+ who report that their health is very good or excellent.

### CANADA\*

#### Self-Reported Health, by Sex, 1994–95 to 2000–01

Year	Sex	Percentage of population with very good or excellent self-reported health	Percentage of population with excellent self-reported health	Percentage of population with very good self-reported health
1994–95**	<b>Both sexes</b>	63.1	25.5	37.6
	<b>Males</b>	65.5	26.8	38.6
	<b>Females</b>	60.8	24.2	36.5
1996–97**	<b>Both sexes</b>	63.4	25.0	38.5
	<b>Males</b>	65.3	26.5	38.9
	<b>Females</b>	61.6	23.6	38.1
1998–99**	<b>Both sexes</b>	65.2	25.7	39.5
	<b>Males</b>	67.3	28.3	39.0
	<b>Females</b>	63.2	23.1	40.1
2000–01	<b>Both sexes</b>	61.4	25.6	35.8
	<b>Males</b>	62.9	27.3	35.7
	<b>Females</b>	59.9	24.0	35.9

Sources: Statistics Canada, *National Population Health Survey*, 1994–95, 1996–97 and 1998–99, cross-sectional sample, health file; *Canadian Community Health Survey*, 2000–01

\* Includes household population aged 12 and over.

\*\* Data for *National Population Health Survey* excludes the territories.

## CANADA\*

### Self-Reported Health, by Sex and Selected Age Groups, 2000–01

Sex	Age group (years)	Percent of population with very good or excellent self-reported health	Percent of population with excellent self-reported health	Percent of population with very good self-reported health
Both sexes	12–19	70.8	30.0	40.8
	20–34	73.0	31.8	41.2
	35–44	66.7	28.9	37.8
	45–64	55.8	22.7	33.1
	65 and over	36.5	11.9	24.5
	Total		61.4	25.6
Males	12–19	73.4	32.3	41.1
	20–34	75.0	33.8	41.2
	35–44	66.8	29.1	37.7
	45–64	56.3	24.0	32.2
	65 and over	36.7	13.2	23.5
	Total		62.9	27.3
Females	12–19	68.0	27.5	40.5
	20–34	70.9	29.7	41.2
	35–44	66.6	28.8	37.8
	45–64	55.4	21.3	34.0
	65 and over	36.3	10.9	25.3
	Total		59.9	24.0

Source: *Canadian Community Health Survey, 2000–01*

\* Includes household population aged 12 and over.

## FIRST NATIONS

The First Nations data for this indicator are derived from preliminary results of the *National Aboriginal Health Organization Public Opinion Poll on Health Care 2002*, with approximately 900 respondents. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues.

### Self-Reported Health, First Nations (on reserve), 2002

Self-reported health status	Percent of survey respondents
Excellent	13.0
Very good	25.0
Good	33.0
Fair	20.0
Poor	8.0
Did not know	1.0

Source: National Aboriginal Health Organization, preliminary results of the *NAHO Public Opinion Poll on Health Care, July 2002*



## CANADIAN FORCES

The data were derived from the *Canadian Forces Health and Lifestyle Information Survey, 2000*. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues.

### Self-Reported Health, by Sex and Selected Age Groups, Canadian Forces, 2000

		Percent of Regular Force member respondents				
	Age group (years)	Excellent	Very good	Good	Fair	Poor
Males	20-29	30	45	23	2	0
	30-44	19	43	31	6	1
	45-64	17	40	35	8	1
Females	20-29	28	49	20	3	0
	30-44	21	42	29	6	2
	45-64	17	42	32	8	1
<b>Total</b>		20	42	30	8	1

Source: *Canadian Forces Health and Lifestyle Information Survey, 2000* (Regular Force members aged 20-64)

## 5. CHANGE IN LIFE EXPECTANCY

### 5a. Mortality rates for lung, prostate, breast and colorectal cancer, acute myocardial infarction (AMI) and stroke

Age-standardized mortality rates for lung, prostate, breast and colorectal, acute myocardial infarction (AMI) and stroke.

#### Description

The indicators in this category measure mortality rates for four common life-threatening cancers (lung, breast, prostate and colorectal) and two kinds of cardiovascular failures (acute myocardial infarction and stroke) per 100,000 population.

#### Definition

The number of deaths of individuals where the underlying cause of death is one of those specified, per 100,000 population, that would have occurred in the standard population if the actual age-specific rates observed in a given population had occurred in the standard population.

#### CANADA

#### Mortality Rates of Selected Cancers and Cardiovascular Diseases (Age-standardized), Canada, 1979 to 1999

	Year	Lung cancer	Male prostate cancer	Female breast cancer	Colorectal cancer	AMI	Stroke
Both sexes	1979	40.9	26.7	29.8	25.6	148.1	64.5
	1980	42.2	25.7	29.7	25.0	143.3	61.3
	1981	42.1	27.1	30.1	24.8	138.1	60.8
	1982	44.8	26.0	29.7	23.6	132.7	59.0
	1983	45.4	26.7	30.4	23.2	125.5	54.7
	1984	47.4	27.4	30.7	23.6	120.5	53.0
	1985	47.1	28.9	31.8	23.4	114.7	51.2
	1986	47.6	29.4	32.0	22.9	111.8	50.5
	1987	48.2	29.4	31.3	22.9	105.2	48.1
	1988	50.2	30.7	31.4	22.5	100.7	47.9
	1989	50.2	29.7	31.2	21.5	93.9	47.5
	1990	49.9	30.1	31.3	21.1	88.0	44.7
	1991	50.6	31.2	30.1	20.4	83.9	44.0
	1992	50.1	31.0	30.4	20.5	80.2	43.6
	1993	51.4	31.0	29.4	20.1	78.2	44.7
	1994	50.5	30.7	30.0	19.9	73.2	43.1
	1995	49.1	31.0	28.7	20.0	71.2	42.2
	1996	50.2	29.0	28.9	19.4	69.4	41.3
	1997	48.2	28.4	27.4	18.8	66.7	41.3
	1998	49.6	27.9	26.4	19.2	63.6	39.0
1999	50.0	26.7	25.2	19.1	60.2	37.0	

Source: Statistics Canada, Canadian Vital Statistics, Death Database and Demography Division (population estimates), 1991 Census of Population

Notes: Rates are per 100,000 population.

Age standardized to the 1991 Canadian population.

## Mortality Rates of Selected Cancers, by Sex (Age-standardized), Canada, 1979 to 1999

Year	Lung cancer		Male prostate and female breast cancer		Colorectal cancer	
	Males	Females	Males	Females	Males	Females
1979	71.7	16.3	26.7	29.8	28.6	23.3
1980	74.0	17.1	25.7	29.7	28.9	22.2
1981	73.2	17.9	27.1	30.1	29.2	21.6
1982	77.4	19.5	26.0	29.7	28.2	20.3
1983	78.4	19.9	26.7	30.4	27.7	19.9
1984	80.2	22.2	27.4	30.7	28.3	20.4
1985	78.0	23.8	28.9	31.8	28.6	19.8
1986	79.0	24.0	29.4	32.0	27.2	19.7
1987	78.6	25.3	29.4	31.3	27.5	19.6
1988	81.3	26.9	30.7	31.4	27.6	18.8
1989	81.1	27.0	29.7	31.2	26.8	17.6
1990	79.5	27.6	30.1	31.3	25.7	17.7
1991	78.8	29.5	31.2	30.1	25.1	16.8
1992	77.5	29.6	31.0	30.4	25.9	16.6
1993	77.9	31.7	31.0	29.4	24.7	16.6
1994	75.5	31.9	30.7	30.0	25.0	16.1
1995	73.2	31.3	31.0	28.7	25.1	16.2
1996	72.9	33.6	29.0	28.9	24.3	15.7
1997	69.9	32.3	28.4	27.4	23.5	15.2
1998	70.1	34.5	27.9	26.4	24.1	15.7
1999	70.3	34.8	26.7	25.2	24.1	15.2

Source: Statistics Canada, Canadian Vital Statistics, Death Database and Demography Division (population estimates), 1991 Census of Population

Notes: Rates are per 100,000 population.

Age standardized to the 1991 Canadian population.

### Mortality Rates for AMI and Stroke, by Sex (Age-standardized), Canada, 1979 to 1999

Year	Acute myocardial infarction (AMI)		Stroke	
	Males	Females	Males	Females
1979	214.6	94.1	71.1	59.3
1980	204.9	93.4	67.4	56.6
1981	200.3	88.9	67.5	56.0
1982	189.9	87.5	64.5	54.7
1983	180.5	82.2	58.9	51.3
1984	173.0	79.4	57.9	49.1
1985	165.2	75.5	55.7	47.6
1986	158.7	75.3	54.3	47.4
1987	149.0	71.0	52.9	44.3
1988	143.4	67.8	51.1	45.2
1989	134.0	62.9	52.1	44.0
1990	122.7	60.9	49.7	40.8
1991	117.2	58.0	48.2	40.7
1992	113.8	54.4	47.0	40.8
1993	111.0	53.1	48.6	41.5
1994	102.9	50.3	47.2	39.9
1995	98.8	50.0	46.9	38.7
1996	96.4	48.4	44.9	38.4
1997	92.8	46.6	44.7	38.4
1998	89.7	43.6	41.9	36.6
1999	84.5	41.6	40.1	34.6

Source: Statistics Canada, Canadian Vital Statistics, Death Database and Demography Division (population estimates), 1991 Census of Population

Notes: Rates per 100,000 population.

Age standardized to the 1991 Canadian population.

## FIRST NATIONS

### Cancer Mortality Rates, by Sex (Age-standardized), Canada and First Nations (on reserve\*), 1999

		Lung cancer	Colorectal cancer	Male prostate and female breast cancer
<b>Males</b>	Canada	70.3	24.1	26.7
	First Nations	60.6	24.0	33.0
<b>Females</b>	Canada	34.8	15.2	25.2
	First Nations	33.4	16.8	23.3

Sources: Statistics Canada; Health Canada, First Nations and Inuit Health Branch, in-house statistics

Notes: Rates per 100,000 population.

Age standardized to the 1991 population.

\*Contains data from British Columbia and Alberta that are both on and off reserve.

### Cardiovascular Disease Mortality Rates, by Sex (Age-standardized), Canada and First Nations (on reserve), 1999

		Acute myocardial infarction	Stroke
<b>Males</b>	Canada	84.5	40.1
	First Nations	80.3	42.3
<b>Females</b>	Canada	41.6	34.6
	First Nations	38.2	34.6

Sources: Statistics Canada; Health Canada, First Nations and Inuit Health Branch, in-house statistics

Notes: Rates per 100,000 population.

Age standardized to the 1991 population.

## 5b. Five-year relative survival rates for lung, prostate, breast and colorectal cancer

Five-year age-standardized relative survival rates for lung, prostate, breast and colorectal cancer.

### Description

The indicators in this category measure survival rates for four common life-threatening cancers (lung, breast, prostate and colorectal) as a percent of the population aged 15 to 99.

### Definition

The ratio of the observed survival in the group of cancer patients under study five years after diagnosis and the survival that would have been expected had they been subject only to the mortality rates of the general population similar in characteristics such as age, sex and geographic place of residence.

### CANADA Five-year Relative Survival Rate for Cancer Cases, by Sex and Selected Cancers (Age-standardized), 1997

Sex	Percent of relative survival rate		
	Lung cancer	Male prostate and female breast cancer	Colorectal cancer
Both sexes	15	..	58
Males	14	87	56
Females	17	82	59

Sources: Statistics Canada, Canadian Cancer Registry; National Cancer Incidence Reporting System; Canadian Vital Statistics, Death Database and Demography Division (population estimates), 1991 Census of Population

Notes: Expressed as a percent of population aged 15 to 99.

Age standardized to the 1991 Canadian population.

Data is restricted to cases diagnosed in 1992 that were the first primary cancer for the individual.

Québec data were not included.

.. Indicates data not applicable.

### 5c. 30-day acute myocardial infarction mortality rate

30-day acute myocardial infarction in-hospital mortality rate.

#### Description

The indicator in this category measures the proportion of mortality of acute myocardial infarction (AMI) patients (age 20 to 105) from all causes occurring within 30 days of admission to hospital.

#### Definition

The risk adjusted rate of all cause in-hospital deaths occurring within 30 days of first admission to an acute care hospital with a diagnosis of acute myocardial infarction (AMI).

#### CANADA

The 3-year, 30-day acute myocardial infarction in-hospital mortality rate average for 1997–1999 was calculated to be 12.6% of all AMI cases.

Source: Canadian Institute for Health Information, Hospital Morbidity Database

### 5d. 30-day stroke mortality rate

30-day stroke in-hospital mortality rate.

#### Description

The indicator in this category measures the proportion of mortality of stroke patients (aged 20 to 105) from all causes occurring within 30 days of admission to hospital.

#### Definition

The risk adjusted rate of all cause in-hospital death occurring within 30 days of admission to an acute care hospital with a diagnosis of stroke.

#### CANADA

The 3-year, 30-day stroke in-hospital mortality rate average for 1997–1999 was calculated to be 19.2% of all stroke cases.

Source: Canadian Institute for Health Information, Hospital Morbidity Database

## 5e-f. 365-day survival rate for acute myocardial infarction (AMI) and 180-day survival rate for stroke

365-day net survival rate for acute myocardial infarction (AMI).

180-day net survival rate for all stroke.

### Description

The indicators in this category measure survival rates for two kinds of cardiovascular failures (acute myocardial infarction and stroke).

### Definition

The net survival rate for individuals with an incident case of acute myocardial infarction (AMI) or stroke is estimated using the cause-specific survival rate. In the case of AMI, survival is at least 365 days after initial admission to hospital, while for stroke, survival is for at least 180 days. The net survival rate measures mortality due to AMI or stroke, i.e., survival where the only possible underlying cause of death is the disease in question.

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No data for Canada currently available.

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## 6. IMPROVED QUALITY OF LIFE

### 6a. Total hip replacement rate

#### Description

Total hip replacement rate measures the rate of people (classified by age and sex categories) who received a hip replacement while they were in-patients in an acute care hospital.

#### Definition

Age-standardized rate of total unilateral or bilateral hip replacement surgery performed on in-patients in acute care hospitals.

#### CANADA and FIRST NATIONS

#### Hip Replacement Rate, by Sex, Canada and First Nations (on reserve), 1995-96 to 1999-2000

Year	Canada			First Nations*		
	Both sexes	Males	Females	Both sexes	Males	Females
1995-96	56.8	53.0	59.4	..	..	..
1996-97	56.3	53.1	58.7	..	..	..
1997-98	55.8	51.6	58.9	..	..	..
1998-99	57.0	54.5	58.6	..	..	..
1999-2000	59.5	56.0	62.0	57.7	52.0	63.5

Sources: Health Canada, First Nations and Inuit Health Branch, in-house estimates; Canadian Institute for Health Informatics, Hospital Morbidity Database; Statistics Canada, 1991 Census of Population

Notes: Rates are per 100,000 population.

Age standardized to the 1991 Canadian population.

.. Indicates data not available.

\* First Nations rates are for calendar year 1999.

## 6b. Total knee replacement rate

### Description

Total knee replacement rate measures the rate of people (classified by age and sex categories) who received a knee replacement while they were in-patients in an acute care hospital.

### Definition

Age-standardized rate of total unilateral or bilateral knee replacement surgery performed on in-patients in acute care hospitals.

### CANADA and FIRST NATIONS

#### Knee Replacement Rate, by Sex, Canada and First Nations (on reserve), 1995–96 to 1999–2000

Year	Canada			First Nations*		
	Both sexes	Males	Females	Both sexes	Males	Females
1995–96	55.6	48.9	61.3	..	..	..
1996–97	58.1	51.5	63.9	..	..	..
1997–98	59.9	53.2	65.6	..	..	..
1998–99	61.4	55.0	67.1	..	..	..
1999–2000	65.6	59.0	71.4	75.5	66.9	86.7

Sources: Health Canada, First Nations and Inuit Health Branch, in-house estimates; Canadian Institute for Health Informatics, Hospital Morbidity Database; Statistics Canada, 1991 Census of Population

Notes: Rates are per 100,000 population.

Age standardized to the 1991 Canadian population.

.. Indicates data not available.

\* First Nations rates are for calendar year 1999.

## 7. REDUCED BURDEN OF DISEASE, ILLNESS AND INJURY

### 7a. Incidence rates for lung, prostate, breast and colorectal cancer

Age-standardized incidence rates for lung, prostate, breast and colorectal cancer.

#### Description

Incidence rates for lung, prostate, breast and colorectal cancer measure the number (per 100,000 of population) of primary cancer cases diagnosed during the reporting year.

#### Definition

The number of newly diagnosed primary cancer cases in a given year for specific sites per 100,000 that would have occurred in the standard population if the actual age-specific rates observed in a given population had occurred in the standard population.

#### CANADA Cancer Incidence Rates, by Selected Cancers (Age-standardized), 1976 to 2002\*

	Year	Lung cancer	Male prostate cancer	Female breast cancer	Colorectal cancer
Both sexes	1976	43.3	62.1	84.6	49.3
	1977	45.4	67.9	84.4	51.2
	1978	49.3	74.0	86.1	53.7
	1979	48.8	72.0	87.3	53.1
	1980	49.0	71.4	83.3	51.2
	1981	53.7	78.5	86.5	53.7
	1982	55.3	77.8	86.0	53.8
	1983	57.6	79.6	89.3	55.2
	1984	59.1	80.9	90.3	55.0
	1985	58.0	85.0	92.2	56.4
	1986	59.6	86.1	88.6	54.5
	1987	60.0	89.6	91.1	54.2
	1988	61.1	90.4	97.8	53.4
	1989	60.4	91.8	96.4	52.3
	1990	60.9	99.8	96.0	52.5
	1991	60.6	112.3	100.1	51.7
	1992	61.4	125.3	102.0	52.1
	1993	62.7	140.4	99.2	51.3
	1994	60.2	129.4	98.9	51.6
	1995	59.7	111.3	98.7	50.3
	1996	59.2	109.7	98.5	49.2
	1997	57.9	115.0	102.0	49.3
1998*	..	113.7	102.6	..	
1999*	..	113.9	103.6	..	
2000*	..	116.0	104.4	..	
2001*	..	118.2	105.3	..	
2002*	..	120.3	106.1	..	

Source: Statistics Canada, Canadian Cancer Registry Database, National Cancer Incidence Reporting System, Demography Division (population estimates)

Notes: Rates are per 100,000 population.

Age standardized to the 1991 Canadian population.

.. Indicates data not available.

\*1998 to 2002 rates are estimates only.

**CANADA**  
**Cancer Incidence Rates, by Sex and Selected Cancers**  
**(Age-standardized), Canada, 1976 to 2002\***

	Year	Lung cancer	Male prostate cancer	Colorectal cancer
<b>Males</b>	1976	75.7	62.1	55.3
	1977	78.6	67.9	56.4
	1978	85.1	74.0	59.4
	1979	83.9	72.0	58.5
	1980	83.2	71.4	57.3
	1981	91.2	78.5	61.6
	1982	92.6	77.8	61.9
	1983	95.2	79.6	63.0
	1984	97.1	80.9	64.0
	1985	93.2	85.0	65.4
	1986	96.4	86.1	63.8
	1987	95.0	89.6	64.0
	1988	95.5	90.4	63.7
	1989	93.6	91.8	62.1
	1990	92.7	99.8	62.2
	1991	90.7	112.3	62.3
	1992	90.3	125.3	63.4
	1993	91.9	140.4	61.3
	1994	87.3	129.4	62.4
	1995	84.8	111.3	60.8
1996	82.3	109.7	60.1	
1997	79.4	115.0	59.6	
1998*	79.3	113.7	61.3	
1999*	78.5	113.9	59.9	
2000*	76.9	116.0	59.6	
2001*	75.4	118.2	59.3	
2002*	73.9	120.3	59.0	

Source: Statistics Canada, Canadian Cancer Registry Database, National Cancer Incidence Reporting System, Demography Division (population estimates)

Notes: Rates are per 100,000 population.

Age standardized to the 1991 Canadian population.

\* 1998 to 2002 rates are estimates only.

**CANADA**  
**Cancer Incidence Rates, by Sex and Selected Cancers**  
**(Age-standardized), Canada, 1976 to 2002\***

	Year	Lung cancer	Female breast cancer	Colorectal cancer
<b>Females</b>	1976	16.3	84.6	44.6
	1977	17.9	84.4	47.2
	1978	20.1	86.1	49.5
	1979	20.3	87.3	49.1
	1980	21.7	83.3	46.8
	1981	24.3	86.5	47.8
	1982	25.9	86.0	48.0
	1983	28.3	89.3	49.4
	1984	29.6	90.3	48.3
	1985	30.9	92.2	49.8
	1986	31.6	88.6	47.4
	1987	33.2	91.1	46.9
	1988	34.8	97.8	45.4
	1989	35.0	96.4	44.7
	1990	36.5	96.0	45.0
	1991	37.7	100.1	43.5
	1992	39.6	102.0	43.4
	1993	40.6	99.2	43.6
	1994	39.8	98.9	43.1
	1995	40.8	98.7	42.0
	1996	42.0	98.5	40.4
	1997	41.9	102.0	41.1
	1998*	42.9	102.6	43.1
	1999*	44.6	103.6	40.5
	2000*	45.5	104.4	40.1
	2001*	46.4	105.3	39.6
	2002*	47.3	106.1	39.2

Source: Statistics Canada, Canadian Cancer Registry Database, National Cancer Incidence Reporting System, Demography Division (population estimates)

Notes: Rates are per 100,000 population.

Age standardized to the 1991 Canadian population.

\* 1998 to 2002 rates are estimates only.

## FIRST NATIONS

### Cancer Incidence Rates, by Sex (Age-standardized), Canada\* and First Nations (on reserve), 1999

		Lung cancer	Colorectal cancer	Male prostate and female breast cancer
<b>Males</b>	Canada	78.5	59.9	113.9
	First Nations	93.9	85.1	177.5
<b>Females</b>	Canada	44.6	40.5	103.6
	First Nations	27.5	39.9	80.8

Sources: Statistics Canada; Health Canada, First Nations and Inuit Health Branch *Health Report 1999*

Notes: Rates are per 100,000 population.

Age standardized to the 1991 Canadian population.

\* Canada's 1999 data are forecasts/estimates.

## 7b. Potential years of life lost due to lung, prostate, breast and colorectal cancer, acute myocardial infarction (AMI), stroke, suicide and unintentional injury

### Description

Potential years of life lost (PYLL) due to lung, prostate, breast and colorectal cancer; acute myocardial infarction; stroke; suicide and unintentional injury tallies how many years of life were lost prematurely owing to each of these causes. It subtracts the age at death from a possible average life expectancy of age 75.

### Definition

Potential years of life lost (PYLL) is the number of years of life “lost” when a person dies “prematurely” from any cause — defined as dying before age 75. A person dying at age 25, for example, has lost 50 potential years of life.

PYLLs can also be estimated for a specific cause, in which case the indicator measures the number of years of life “lost” when a person dies before age 75 due to a cause like injury, cancer, acute myocardial infarction or stroke.

### CANADA

#### Potential Years of Life Lost, by Selected Causes, 1979 to 1999

	Year	Lung cancer	Male prostate cancer	Female breast cancer	Colorectal cancer	AMI	Stroke	Suicide	Unintentional injuries
Both sexes	1979	363.8	54.5	377.7	169.2	886.5	252.5	500.7	1,774.6
	1980	370.5	52.0	373.0	161.3	846.0	229.2	479.2	1,642.0
	1981	372.9	53.7	369.7	161.1	815.4	229.8	479.4	1,560.2
	1982	387.8	55.2	376.5	155.1	761.8	216.3	498.2	1,242.0
	1983	396.0	56.9	371.0	151.2	723.9	209.5	515.5	1,214.6
	1984	414.9	51.8	377.3	155.6	689.4	195.0	469.9	1,153.5
	1985	413.9	64.4	398.8	148.3	654.5	181.6	439.8	1,112.7
	1986	420.2	68.5	406.8	155.7	624.2	181.2	490.9	1,059.7
	1987	426.8	66.4	410.0	151.7	581.7	170.0	473.3	1,084.9
	1988	425.4	66.5	394.3	148.1	544.2	171.8	462.5	1,026.7
	1989	432.0	64.4	397.1	140.6	506.4	167.4	449.3	1,041.3
	1990	426.1	68.7	400.3	148.3	468.1	162.6	435.5	931.8
	1991	437.0	71.7	384.8	139.0	445.8	159.7	453.6	886.6
	1992	435.2	66.8	381.4	139.6	425.7	147.0	464.2	836.3
	1993	432.1	66.8	374.1	138.0	412.5	158.8	461.7	869.6
	1994	427.0	65.3	396.7	136.4	391.0	150.1	450.8	780.8
	1995	410.4	66.9	376.9	139.1	367.7	144.0	475.5	780.1
	1996	417.0	61.8	372.8	138.5	359.8	136.0	456.3	698.7
	1997	398.7	60.0	359.3	135.7	344.0	143.9	419.1	701.0
1998	414.6	59.5	353.2	134.5	321.1	131.4	420.2	682.3	
1999	417.9	55.6	338.5	134.7	312.1	123.1	453.2	706.6	

Source: Statistics Canada, Canadian Vital Statistics, Death Database and Demography Division (population estimates)

Note: Rates are per 100,000 population aged 0 to 74.

## Potential Years of Life Lost, by Sex and Selected Causes, Canada, 1979 to 1999

	Year	Lung cancer	Male prostate cancer	Female breast cancer	Colorectal cancer	AMI	Stroke	Suicide	Unintentional injuries
<b>Males</b>	1979	544.4	54.5	..	173.6	1,377.4	272.1	766.0	2,696.3
	1980	552.7	52.0	..	168.9	1,309.3	242.3	740.3	2,465.1
	1981	541.2	53.7	..	174.1	1,256.2	237.3	745.5	2,388.0
	1982	558.2	55.2	..	165.3	1,173.3	228.7	786.3	1,883.6
	1983	573.0	56.9	..	164.2	1,117.1	221.6	812.8	1,849.9
	1984	588.3	51.8	..	162.2	1,063.5	210.2	747.5	1,755.5
	1985	565.4	64.4	..	163.3	1,007.0	191.3	705.7	1,674.3
	1986	578.1	68.5	..	172.6	955.8	191.3	777.7	1,589.5
	1987	574.6	66.4	..	166.3	886.1	188.7	748.6	1,637.6
	1988	574.5	66.5	..	165.1	834.0	178.5	730.5	1,579.8
	1989	581.1	64.4	..	163.4	778.7	178.7	705.6	1,544.6
	1990	567.1	68.7	..	170.2	709.6	183.1	694.6	1,405.1
	1991	568.8	71.7	..	162.8	679.1	175.2	734.3	1,330.0
	1992	553.2	66.8	..	159.6	656.6	154.5	738.4	1,254.0
	1993	540.5	66.8	..	159.0	632.6	174.6	741.8	1,276.7
	1994	529.1	65.3	..	157.4	594.2	160.3	719.8	1,169.0
	1995	502.9	66.9	..	161.2	552.4	157.2	763.6	1,158.2
	1996	485.1	61.8	..	156.7	544.6	145.6	721.3	1,036.0
	1997	474.2	60.0	..	156.8	526.2	155.8	666.3	1,041.3
	1998	480.5	59.5	..	148.4	498.0	140.2	666.1	1,013.6
1999	490.9	55.6	..	158.5	477.8	127.1	724.7	1,036.0	
<b>Females</b>	1979	181.4	..	377.7	164.9	391.0	232.7	232.8	844.0
	1980	186.7	..	373.0	153.7	378.8	216.0	215.9	811.8
	1981	203.3	..	369.7	148.1	371.2	222.2	211.3	726.1
	1982	216.1	..	376.5	144.8	347.4	203.9	208.1	595.8
	1983	217.8	..	371.0	138.1	328.0	197.4	216.3	575.0
	1984	240.5	..	377.3	149.0	312.9	179.6	190.5	547.8
	1985	261.5	..	398.8	133.3	299.9	172.0	172.3	547.8
	1986	261.4	..	406.8	138.7	290.9	170.9	202.6	527.2
	1987	278.2	..	410.0	137.1	275.6	151.3	196.6	529.2
	1988	275.5	..	394.3	130.9	252.7	165.2	193.0	470.6
	1989	282.1	..	397.1	117.7	232.5	156.1	191.5	535.1
	1990	284.2	..	400.3	126.2	225.2	142.1	174.9	455.7
	1991	304.4	..	384.8	115.1	210.9	144.1	171.1	440.5
	1992	316.4	..	381.4	119.5	193.3	139.5	188.3	416.0
	1993	322.9	..	374.1	116.9	191.0	142.9	179.9	459.9
	1994	324.2	..	396.7	115.3	186.5	139.8	180.1	390.2
	1995	317.4	..	376.9	116.9	181.8	130.8	185.5	399.6
	1996	348.6	..	372.8	120.2	173.8	126.3	189.7	359.2
	1997	322.7	..	359.3	114.6	160.5	131.9	170.0	358.0
	1998	348.2	..	353.2	120.5	142.7	122.6	172.3	348.4
1999	344.3	..	338.5	110.8	144.9	119.2	179.4	374.5	

Source: Statistics Canada, Canadian Vital Statistics, Death Database and Demography Division (population estimates)

Notes: Rates are per 100,000 population aged 0 to 74.

.. Indicates not applicable.



**FIRST NATIONS**  
**Potential Years of Life Lost, by Selected Causes,**  
**Canada and First Nations (on reserve\*), 1999**

Selected Causes	Canada	First Nations
Unintentional injury	706.6	3,218.8
Suicides	453.2	1,495.8
Breast cancer	338.5	292.5
Acute myocardial infarction	312.1	220.5
Lung cancer	417.9	139.3
Stroke	123.1	127.4
Colorectal cancer	134.7	83.8
Prostate cancer	55.6	33.9

Sources: Statistics Canada, Canadian Vital Statistics, Death Database and Demography Division (population estimates); Health Canada, First Nations and Inuit Health Branch, in-house statistics

\* Contains data from British Columbia and Alberta that are both on and off reserve.

**7c. Incidence rates of vaccine-preventable diseases**

There are certain diseases that all jurisdictions are required to report to Health Canada and that are preventable by vaccination.

**7c(i). Invasive meningococcal disease**

Invasive meningococcal disease incidence rate.

**Description**

This indicator represents the number of new cases per year of meningococcal disease (per 100,000 population less than 20 years of age).

**Definition**

The rate of new cases reported by year, age and serogroup.

A confirmed case is defined as invasive disease with laboratory confirmation of infection: isolation of *Neisseria meningitidis* from a normally sterile site (blood, cerebrospinal fluid, joint, pleural or pericardial fluid) or demonstration of *N. meningitidis* antigen in cerebrospinal fluid.

**CANADA**  
**Meningococcal Disease (Invasive) in Persons under 20 Years,**  
**by Serogroup, 1990 to 2001\***

Year	Group C	Total non-C	Group unknown**	Total
1990	1.55	1.03	1.46	4.04
1991	2.07	1.14	0.91	4.12
1992	2.37	1.28	0.47	4.13
1993	1.37	1.23	0.48	3.09
1994	1.26	1.39	0.40	3.06
1995	0.84	1.37	0.25	2.46
1996	0.67	1.05	0.35	2.07
1997	0.59	1.31	0.17	2.07
1998	0.22	0.79	0.29	1.30
1999*	..	..	..	1.50
2000*	..	..	..	1.69
2001*	..	..	..	2.59

Sources: Health Canada, Centre for Infectious Disease Prevention and Control, Provincial and Territorial Ministries of Health, Laboratories across Canada, and National Microbiology Laboratory, Winnipeg

Notes: Rates are per 100,000 population < 20 years of age.

.. Indicates data not available.

Non-serogroup C: includes cases where serogroup was confirmed as A, B, W-135, X, Y, or Z or not available.

Total: includes serogroup C, non-serogroup C and serogroup unknown.

Based on Health Canada's Enhanced Surveillance System and data shown above are the best available at the national level.

\* Data for 1999 to 2001 are provisional; validation and verification in progress.

\*\* Serogroup unknown: includes cases where serogroup information was unknown (missing) or non-groupable.

## 7c(ii). Measles

Measles incidence rate.

### Description

This indicator represents the number of new cases per year of measles (per 100,000 population).

### Definition

The rate of new cases reported by year.

A confirmed case is defined as laboratory confirmation of infection in the absence of recent immunization with measles-containing vaccine: isolation of measles virus from an appropriate clinical specimen or significant rise in measles specific antibody titre between acute and convalescent sera or positive serologic test for measles IgM using a recommended assay or clinical case in a person who is epidemiologically linked to a laboratory confirmed case.

### CANADA Measles, 1980 to 2001

Year	Reported rate
1980	56.55
1981	9.29
1982	4.24
1983	3.68
1984	15.92
1985	10.90
1986	57.24
1987	9.02
1988	2.28
1989	40.84
1990	3.73
1991	22.04
1992	9.66
1993	0.71
1994	1.80
1995	8.04
1996	1.13
1997	1.95
1998	0.04
1999	0.09
2000	0.64
2001	0.11

Source: Health Canada, Provinces/Territories, Notifiable Disease Reporting and Enhanced Surveillance System

Notes: Data for 2001 are provisional.

Rates are per 100,000 population.

Since 1998, all measles cases are imported or import-related.

## FIRST NATIONS

For First Nations (on reserve) there were no reported cases of measles in 1999.

Source: Health Canada, First Nations and Inuit Health Branch, in-house statistics

### 7c(iii). Haemophilus influenzae b (invasive) (Hib) disease

Haemophilus influenzae b (invasive) (Hib) disease incidence rate in children.

#### Description

This indicator represents the number of new cases per year of Haemophilus influenzae b (per 100,000 children under the age of five).

#### Definition

The rate of new cases reported by year in children under 5.

A confirmed case is defined as invasive disease with laboratory confirmation of infection in the absence of recent immunization with Hib-containing vaccine: isolation of H. influenzae type b from a normally sterile site or epiglottitis in a person with epiglottitis, or demonstration of H. influenzae type b antigen in cerebrospinal fluid. Invasive disease includes meningitis, bacteraemia, epiglottitis, pneumonia, pericarditis, septic arthritis or empyema.

#### CANADA Haemophilus Influenzae b (Invasive) Disease, Canada, 1990 to 2001

Year	Reported rate
1990	16.62
1991	9.60
1992	10.44
1993	3.33
1994	1.14
1995	1.06
1996	1.22
1997	1.56
1998	0.80
1999	0.77
2000	0.65
2001	0.92

Source: Health Canada; Provinces/Territories, Notifiable Disease Reporting and Enhanced Surveillance System  
Notes: Rates are per 100,000 children < 5 years of age.  
Data for 2000 and 2001 are provisional.

## FIRST NATIONS

For First Nations (on reserve), there were no reported cases of *Haemophilus influenzae* b (invasive) disease in 1999.

Source: Health Canada, First Nations and Inuit Health Branch, in-house statistics

## 7d. Prevalence of diabetes

### Description

This indicator represents the number of individuals aged 20 years and older with diabetes.

### Definition

The proportion of individuals in the population aged 20 and over with the disease at a specific point in time.

## CANADA

### Prevalence of Diabetes, by Sex and Selected Age Groups, Canada, 1997-98 to 1999-2000

Age group (years)	Percent of population aged 20 years and older								
	1997-98			1998-99			1999-2000		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
20-29	0.6	0.4	0.7	0.7	0.5	0.8	0.7	0.5	0.9
30-39	1.2	1.0	1.4	1.3	1.1	1.6	1.5	1.2	1.8
40-49	2.4	2.6	2.2	2.6	2.9	2.4	2.8	3.0	2.6
50-54	4.9	5.7	4.1	5.3	6.2	4.5	5.6	6.4	4.7
55-59	7.1	8.3	6.0	7.7	9.0	6.5	8.1	9.5	6.8
60-64	9.4	10.7	8.1	10.3	11.9	8.9	10.9	12.5	9.3
65-69	11.5	12.9	10.2	12.5	14.1	11.0	13.2	15.0	11.6
70-74	12.9	14.5	11.7	14.1	15.9	12.7	15.0	16.9	13.5
75-79	13.2	14.8	12.1	14.5	16.3	13.2	15.5	17.4	14.2
80-84	12.5	14.0	11.6	13.8	15.4	12.8	14.8	16.7	13.7
85+	10.1	11.5	9.5	11.3	12.8	10.6	12.2	13.8	11.5
Total	4.3	4.5	4.1	4.8	5.0	4.6	5.1	5.4	4.9

Source: Health Canada, National Diabetes Surveillance System

Notes: Excludes New Brunswick, Newfoundland and Labrador, Nunavut and Northwest Territories.

Provisional data.

The National Diabetes Surveillance System is a new reporting system, and with the first years of data, prevalence may be underestimated.

## FIRST NATIONS

The First Nations data for this indicator are derived from a telephone survey commissioned by Health Canada with approximately 500 respondents. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues.

### Self-Reported Prevalence of Diabetes, First Nations (on reserve), 2002

Do you have diabetes?	Percent of survey respondents (aged 18 and over)
Yes	9.7
No	90.1
Do not know	0.2

Source: Health Canada, First Nations and Inuit Health Branch, secondary analysis of Ipsos-Reid, *Awareness and Knowledge Levels of Type 2 Diabetes Among Aboriginal Peoples in Canada, 2002*

## CANADIAN FORCES

The data were derived from the *Canadian Forces Health and Lifestyle Information Survey, 2000*. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues.

In 2000 only 1% of Canadian Forces member respondents self-reported having diabetes diagnosed by a physician.

Source: *Canadian Forces Health and Lifestyle Information Survey, 2000*

## 8. WAITING TIMES FOR KEY DIAGNOSTIC AND TREATMENT SERVICES

### 8a. Wait times for cardiac surgery

#### 8a(i). Months to clear wait list

#### 8a(ii). Median wait for surgery

#### 8a(iii). Distribution of wait times

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No data for Canada currently available.

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### 8b. Wait times for hip and knee replacement surgery

#### 8b(i). Months to clear wait list

#### 8b(ii). Median wait time

#### 8b(iii) Distribution of wait times

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No data for Canada currently available.

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### 8c. Waiting for radiation therapy for

#### (a) breast cancer (i) weeks to clear current wait list, (ii) median wait time

#### (b) prostate cancer (i) weeks to clear current wait list, (ii) median wait time

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No data for Canada currently available.

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### 8d. Reported wait times for specialist, diagnostic tests and surgery

#### 8d(i). Reported median wait time

#### 8d(ii). Reported median wait time and distribution of reported wait times

Reported median wait time and distribution of reported wait times for (a) specialist physician visits, (b) diagnostic services, and (c) surgery.

#### Description

This indicator compares different elements of waiting times that were incurred by individuals. It compares median waiting times for specialists, non-emergency surgeries and selected diagnostic tests, as well as the distribution of waiting times among less than 1 month, between 1 and 3 months, or more than three months.

## Definition

Wait time refers to the length of time, in weeks, between the patient being referred for a specialized service and receiving the service, during the 12 months prior to the survey.

The median is the 50<sup>th</sup> percentile of the distribution of wait times: half the patients wait less and half wait longer than the median number of weeks. Patients who have not yet received the service are excluded from the indicator calculation.

**Note:** Specialist physician visits include visits for a new illness or condition only; diagnostic tests include non-emergency MRIs, CT scans and angiographies only; surgery includes only non-emergency cases.

## CANADA

Service	Median waiting time	Distribution		
		Less than 1 month	1 to 3 months	Longer than 3 months
Specialist visits	4.3 weeks	46.4%	41.9%	11.7%
Non-emergency surgeries	4.3 weeks	39.5%	41.3%	19.2%
Selected diagnostic tests	3.0 weeks*	54.7%	36.1%	9.1%*

Source: Statistics Canada, *Access to Health Care Services in Canada*, 2001

\* Use with caution (high sampling variability).

## FIRST NATIONS

The First Nations data for this indicator are derived from preliminary results of the *National Aboriginal Health Organization Public Opinion Poll on Health Care 2002*, with approximately 900 respondents. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues.

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In 2002, 78% of First Nations on reserve reported that they had easy access to a nurse while 59% reported easy access to a family physician.

Source: National Aboriginal Health Organization, preliminary results of the *NAHO Public Opinion Poll on Health Care*, July 2002

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## 9. PATIENT SATISFACTION

### 9. Patient satisfaction

#### Description

Patient satisfaction is the percent of adults (individuals 15 and over) who used health care services in the past 12 months who considered the quality of their care to be excellent or very good, as well as the percent who reported being “very satisfied” or “somewhat satisfied” with the way health services were provided.

#### Definition

Percentages of the adult population who rate themselves as either very satisfied or somewhat satisfied with the way the following services were provided: (a) overall health care services received, (b) services received in a hospital, (c) services received from a family doctor or other physician, and (d) community-based services received.

#### CANADA

#### Patient Satisfaction — Overall Health Care Services Received, by Sex and Selected Age Groups,\* 2000–01

Sex	Age group (years)	Percent of population who rated the quality of health care services received as excellent or very good	Percent of population who are very or somewhat satisfied with health care services received
Both sexes	15–19	85.0	86.5
	20–34	80.0	81.8
	35–44	81.2	83.3
	45–64	87.2	85.0
	65 and over	90.2	89.3
	Total	84.4	84.6
Males	15–19	86.7	89.2
	20–34	78.6	81.4
	35–44	79.6	82.0
	45–64	87.3	85.1
	65 and over	91.2	88.8
	Total	84.0	84.4
Females	15–19	83.3	83.8
	20–34	81.1	82.1
	35–44	82.6	84.4
	45–64	87.1	85.0
	65 and over	89.5	89.6
	Total	84.7	84.8

Source: Statistics Canada, *Canadian Community Health Survey, 2000–01*

\* Includes population aged 15 and over who reported receiving health care services in the past 12 months.

**Patient Satisfaction —  
Services Received in a Hospital, by Sex and Selected  
Age Groups,\* Canada, 2000–01**

Sex	Age group (years)	Percent of population who rated the quality of health care services received as excellent or very good	Percent of population who are very or somewhat satisfied with health care services received
<b>Both sexes</b>	15–19	69.6	71.2
	20–34	72.7	74.4
	35–44	77.1	77.3
	45–64	85.0	82.3
	65 and over	90.3	87.7
	Total	80.2	79.5
<b>Males</b>	15–19	75.0	76.0
	20–34	71.6	74.3
	35–44	77.6	76.6
	45–64	82.8	83.0
	65 and over	90.4	86.8
	Total	79.8	79.7
<b>Females</b>	15–19	62.5	64.9
	20–34	73.4	74.4
	35–44	76.7	77.9
	45–64	86.7	81.8
	65 and over	90.3	88.3
	Total	80.5	79.3

Source: Statistics Canada, *Canadian Community Health Survey, 2000–01*

\* Includes population aged 15 and over who reported receiving health care services during a hospital visit.

**Patient Satisfaction —  
Services Received from a Family Doctor or Other Physician,  
by Sex and Selected Age Groups,\* Canada, 2000–01**

Sex	Age group (years)	Percent of population who rated the quality of family doctor or other physician care received as excellent or very good	Percent of population who are very or somewhat satisfied with family doctor or other physician care received
<b>Both sexes</b>	15–19	90.6	92.7
	20–34	87.0	88.8
	35–44	88.5	90.3
	45–64	90.5	90.9
	65 and over	93.3	93.6
	Total	89.7	90.9
<b>Males</b>	15–19	92.5	94.6
	20–34	83.1	87.1
	35–44	86.8	90.7
	45–64	89.9	90.5
	65 and over	94.1	94.8
	Total	88.7	90.8
<b>Females</b>	15–19	89.0	91.0
	20–34	89.6	90.0
	35–44	89.7	90.1
	45–64	91.0	91.3
	65 and over	92.7	92.7
	Total	90.5	90.9

Source: Statistics Canada, *Canadian Community Health Survey, 2000–01*

\* Includes population aged 15 and over who reported receiving health care services from a family doctor or other physician, excluding those services that may have been received during a hospital visit.

**Patient Satisfaction —  
Community Based Services, by Sex and Selected  
Age Groups,\* Canada, 2000–01**

Sex	Age group (years)	Percent of population who rated the quality of community-based health care received as excellent or very good	Percent of population who are very or somewhat satisfied with community-based health care received
<b>Both sexes</b>	15–19	75.5	78.2
	20–34	72.3	77.6
	35–44	75.3	82.8
	45–64	80.4	82.5
	65 and over	89.8	89.5
	Total	77.8	81.7
<b>Males</b>	15–19	86.3	85.4
	20–34	70.2	76.5
	35–44	73.1	79.0
	45–64	77.6	82.0
	65 and over	85.4	82.7
	Total	76.3	80.1
<b>Females</b>	15–19	68.4	73.5
	20–34	73.8	78.3
	35–44	76.6	85.2
	45–64	82.7	83.0
	65 and over	92.5	93.6
	Total	78.8	82.8

Source: Statistics Canada, *Canadian Community Health Survey, 2000–01*

\* Includes population 15 and over who reported receiving community-based health care, excluding those services that may have been received in a hospital or doctor's office.

## FIRST NATIONS

The First Nations data for this indicator are derived from preliminary results of the *National Aboriginal Health Organization Public Opinion Poll on Health Care 2002*. Approximately 700 respondents said they had received health care over the last year; and were asked to rate the health care they had received. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues.

### Rating of Health Care Received Over the Last Year, First Nations, 2002

	Percent of respondents who reported receiving health care over the last year
Excellent	26
Good	40
Fair	25
Poor	9

Source: National Aboriginal Health Organization, preliminary results of the *NAHO Public Opinion Poll on Health Care*, July 2002

## CANADIAN FORCES

The data were derived from the *Canadian Forces Health and Lifestyle Information Survey, 2000*. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues.

### Satisfaction with Canadian Forces Medical System Knowledge, by Sex and Selected Age Groups, Canadian Forces, 2000

		Percent of Regular Force member respondents				
Sex	Age group (years)	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Males	20–29	7	32	32	22	7
	30–44	3	32	32	27	6
	45–64	6	42	29	19	4
Females	20–29	6	30	30	27	8
	30–44	5	34	30	26	6
	45–64	8	36	30	17	10
<b>Total</b>		4	34	31	25	6

Source: *Canadian Forces Health and Lifestyle Information Survey, 2000* (Regular Force members aged 20–64)

### Satisfaction with Personal Health Information Conveyed by Canadian Forces Medical System Providers, by Sex and Selected Age Groups, Canadian Forces, 2000

Percent of Regular Force member respondents						
Sex	Age group (years)	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Males	20–29	7	29	32	22	10
	30–44	3	30	28	28	11
	45–64	5	37	26	25	8
Females	20–29	8	24	27	29	16
	30–44	4	27	20	36	14
	45–64	6	30	19	32	13
<b>Total</b>		4	31	27	28	11

Source: Canadian Forces Health and Lifestyle Information Survey, 2000 (Regular Force members aged 20–64)

### Confidence in the Level of Care Provided by the Canadian Forces Medical System, by Sex and Selected Age Groups, Canadian Forces, 2000

Percent of Regular Force member respondents						
Sex	Age group (years)	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Males	20–29	6	30	31	20	13
	30–44	3	26	31	26	13
	45–64	7	37	28	22	7
Females	20–29	4	26	33	24	13
	30–44	5	22	34	25	15
	45–64	4	27	37	22	11
<b>Total</b>		5	28	31	25	12

Source: Canadian Forces Health and Lifestyle Information Survey, 2000 (Regular Force members aged 20–64)

## 10. HOSPITAL RE-ADMISSIONS FOR SELECTED CONDITIONS

### 10a. Re-admission for acute myocardial infarction

Re-admission rate for acute myocardial infarction.

#### Description

This indicator measures the percent of patients who were re-admitted to hospital within 28 days with selected conditions, given the initial diagnosis of acute myocardial infarction (AMI).

#### Definition

Risk adjusted rate of unplanned re-admission following admission for acute myocardial infarction (AMI). A case is counted as a re-admission if it is for a relevant diagnosis or procedure and occurs within 28 days after the index AMI episode of care. An episode of care refers to all continuous acute care hospitalizations including transfers.

#### CANADA

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The three-year 1997–1999 average re-admission rate for acute myocardial infarction (AMI) was 7.3% of AMI cases.

Source: Canadian Institute for Health Information, Hospital Morbidity database

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### 10c. Re-admission for pneumonia

Re-admission rate for pneumonia.

#### Description

This indicator measures the percent of patients who were re-admitted to hospital within 28 days with selected conditions, given the initial diagnosis of pneumonia.

#### Definition

Risk adjusted rate of unplanned re-admission following admission for pneumonia. A case is counted as a re-admission if it is for a relevant diagnosis or procedure and occurs within 28 days after the index episode of care. An episode of care refers to all continuous acute care hospitalizations including transfers.

#### CANADA

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The three-year 1997–1999 average re-admission rate for pneumonia was 3.3% of pneumonia cases.

Source: Canadian Institute for Health Information, Hospital Morbidity database

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## 11. ACCESS TO 24/7 FIRST CONTACT HEALTH SERVICES

### 11a. Difficulty obtaining routine or ongoing health services

Percent who experience difficulties obtaining routine or ongoing health services.

### 11b. Difficulty obtaining health information or advice

Percent who experience difficulties obtaining health information or advice.

### 11c. Difficulty obtaining immediate care

Percent who experience difficulties obtaining immediate care for a minor health problem.

#### Description

Grouped in this category are indicators that measure the inability of individuals to obtain needed health services, information and advice, expressed as a percent of the population aged 15 and over.

#### Definition

Percent who required routine care or ongoing health services, health information or advice, or immediate care for a minor health problem for self or a family member in the past 12 months and experienced difficulties obtaining them a) during regular daytime hours, b) during evenings or weekends, and c) at night.

#### CANADA

Type of Service	Regular Hours	Evenings and Weekends	Middle of the Night
Routine care	8.6%	8.1%	N/A
Health information or advice	10.1%	10.6%	5.5%*
Immediate care for a minor health problem	11.4%	16.4%	12.4%*

Source: Statistics Canada, *Access to Health Care Services in Canada*, 2001

\* Use with caution (high sampling variability).

#### FIRST NATIONS

The First Nations data for this indicator are derived from preliminary results of the *National Aboriginal Health Organization Public Opinion Poll on Health Care 2002*, with approximately 900 respondents. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues.



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Seventeen percent of survey respondents felt that in the past 12 months there had been times when they needed health care, but did not receive it. Of that 17%, the primary reasons were found to be waiting times were too long, the services were not available in the area, and services were not available at the time required.

Source: National Aboriginal Health Organization, preliminary results of the *NAHO Public Opinion Poll on Health Care*, July 2002

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## 11d. Percent having a regular family doctor

Percent of population having a regular family doctor.

### Description

Percent of total survey respondents (aged 15 and over) who answered “yes” to the question: “Do you have a regular family doctor?”

### Definition

Percent of total survey respondents who say “yes” to the question: “Do you have a regular family doctor?”

### CANADA

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In Canada, 87.7% of respondents reported having a regular family physician for 2001.

Source: Statistics Canada, *Access to Health Care Services in Canada*, 2001

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### FIRST NATIONS

The First Nations data for this indicator are derived from preliminary results of the *National Aboriginal Health Organization Public Opinion Poll on Health Care 2002*, with approximately 900 respondents. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues.

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For First Nations, 77% of respondents reported having a regular family physician for 2001.

Source: National Aboriginal Health Organization, preliminary results of the *NAHO Public Opinion Poll on Health Care*, July 2002

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## CANADIAN FORCES

The data were derived from the *Canadian Forces Health and Lifestyle Information Survey, 2000*. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues.

### Self-Report of a Needed Health Care Service not Received in the Past 12 Months, by Sex and Selected Age Groups, Canadian Forces, 2000

Sex	Age group (years)	Percent of Regular Force member respondents	
		Yes	No
Males	20–29	25	75
	30–44	27	73
	45–64	20	80
Females	20–29	31	69
	30–44	33	67
	45–64	39	62
<b>Total</b>		26	74

Source: *Canadian Forces Health and Lifestyle Information Survey, 2000* (Regular Force members, aged 20–64)

### Availability of Timely Routine Medical Appointments, by Sex and Selected Age Groups, Canadian Forces, 2000

Sex	Age group (years)	Percent of Regular Force member respondents		
		Very timely	Somewhat timely	Not timely
Males	20–29	24	55	21
	30–44	24	53	24
	45–64	31	53	16
Females	20–29	23	55	22
	30–44	22	47	29
	45–64	20	61	19
<b>Total</b>		25	53	22

Source: *Canadian Forces Health and Lifestyle Information Survey, 2000* (Regular Force members, aged 20–64)

## Availability of Timely Routine Specialists Appointments, by Sex and Selected Age Groups, Canadian Forces, 2000

Sex	Age group (years)	Percent of Regular Force member respondents		
		Very timely	Somewhat timely	Not timely
Males	20–29	19	43	38
	30–44	18	41	41
	45–64	23	33	34
Females	20–29	14	39	46
	30–44	21	42	37
	45–64	19	51	31
<b>Total</b>		19	42	39

Source: Canadian Forces Health and Lifestyle Information Survey, 2000 (Regular Force members, aged 20–64)

## Availability of Timely Physiotherapy Appointments, by Sex and Selected Age Groups, Canadian Forces, 2000

Sex	Age group (years)	Percent of Regular Force member respondents		
		Very timely	Somewhat timely	Not timely
Males	20–29	28	47	25
	30–44	32	46	22
	45–64	38	43	19
Females	20–29	34	43	23
	30–44	36	47	17
	45–64	43	46	12
<b>Total</b>		33	46	21

Source: Canadian Forces Health and Lifestyle Information Survey, 2000 (Regular Force members, aged 20–64)

## 12. HOME AND COMMUNITY CARE SERVICES

### 12a-b. Home care admissions; home care admissions 75+

Admissions to publicly funded home care services per capita; admissions to publicly funded home care services per capita 75+.

### 12c. Utilization of home care services

Estimated percent of population receiving homemaking, nursing or respite services.

#### CANADA

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No data for Canada currently available.

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#### FIRST NATIONS

The First Nations data for this indicator are derived from Health Canada's First Nations and Inuit Health Branch, Home and Community Care Program, in-house statistics and may not match the Performance Indicators Reporting Committee requirements, but do address similar issues.

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Sixty-five percent of First Nations on reserve and Inuit communities have access to home and community care services. Furthermore, 97% of First Nations and Inuit communities have been engaged in home and community care program development and service delivery.

Source: Health Canada, First Nations and Inuit Health Branch, in-house statistics

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### 12d. Ambulatory care sensitive conditions (ACSC)

Hospitalization rate for ambulatory care sensitive conditions.

#### Description

This indicator measures the hospitalization rates (per 100,000 population) for chronic conditions that can often be cared for in the community such as diabetes, asthma, alcohol and drug dependence, neuroses, depression and hypertensive disease.

#### Definition

Age-standardized in-patient acute care hospitalization rate for conditions where appropriate ambulatory care may prevent or reduce the need for admission to hospital.

**CANADA**  
**Hospitalization Rate for Ambulatory Care Sensitive**  
**Conditions, by Sex (Age-standardized), 1995-96**  
**to 1999-2000**

Year	Both Sexes	Males	Females
1995-96	503	513	492
1996-97	463	475	450
1997-98	447	461	431
1998-99	411	425	397
1999-2000	401	418	383

Sources: Canadian Institute for Health Information, Hospital Morbidity Database; Statistics Canada, 1991 Census of Population

Notes: Rates per 100,000 population.

Age standardized to the 1991 Canadian population.

**FIRST NATIONS**

Health Canada's First Nations and Inuit Health Branch, using provincial data from British Columbia, Manitoba and Saskatchewan, estimates that ambulatory care sensitive conditions are approximately 4 times higher (1,807 per 100,000 population in 1997-98) for First Nations and Inuit populations than for the rest of Canada. Due to reporting difficulties, this ratio includes all First Nations and Inuit communities in the provinces, and not only those on reserves. It is believed that about one half of the First Nations population are on reserves that have varying degrees of remoteness. Also, the figure may be misinterpreted due to the fact that these numbers allow for more than one admission for the same person per year.

## 13. PUBLIC HEALTH SURVEILLANCE AND PROTECTION

### 13a. Tuberculosis

Tuberculosis incidence rate.

#### Description

The tuberculosis incidence rate is measured as the number of new cases of tuberculosis per year, per 100,000 population.

#### Definition

Rate of incident cases of new active and relapsed tuberculosis reported by calendar year.

#### CANADA AND FIRST NATIONS Tuberculosis Incidence Rate, Canada and First Nations (on reserve), 1990 to 2000

Year	Canada	First Nations
1990	7.2	69.4
1991	7.2	59.5
1992	7.4	74.8
1993	7.0	54.3
1994	7.1	56.3
1995	6.5	53.4
1996	6.3	49.0
1997	6.6	53.3
1998	5.9	41.6
1999	5.9	61.5
2000*	5.5	34.0

Sources: Health Canada, Canadian Tuberculosis Reporting System (CTBRS); Health Canada, First Nations and Inuit Health Branch, in-house statistics

Note: Rates are per 100,000 population.

\* Data for 2000 is provisional until publication of *Tuberculosis in Canada — 2000 Annual Report*.

#### Tuberculosis Incidence Rate, by Origin of Birth, Canada, 1996 to 1999

Year	Canadian-born	Foreign-born
1996	2.7	22.5
1997	2.8	23.9
1998	2.5	21.2
1999	2.6	20.8

Source: Health Canada, Canadian Tuberculosis Reporting System

Note: Rates are per 100,000 population.

## 13b. HIV

Reported HIV diagnoses.

### Description

The annual rate of reported new HIV diagnoses from all jurisdictions in Canada, per 100,000 population.

### Definition

Estimates of new diagnoses of HIV infection, based on new positive HIV test reports.

#### CANADA Positive HIV Test Reports, by Year of Test, Canada, 1995 to 2001

Year	Rate
1995	10.2
1996	9.4
1997	8.5
1998	7.7
1999	7.3
2000	6.9
2001	7.1

Sources: Health Canada, HIV and AIDS in Canada, Surveillance report to December 31, 2001; Health Canada, Centre for Infectious Disease Prevention and Control, Division of HIV / AIDS Epidemiology and Surveillance, 2002  
Note: Rates expressed as positive results per 100,000 population.

### FIRST NATIONS

In the case of First Nations, this indicator measures the different sex and exposure categories of the population reporting positive HIV tests.

#### Positive HIV Tests, by Sex and Exposure Category, Aboriginal and Non-Aboriginal Persons, Selected Jurisdictions,\* 1998-2001

		Percent of positive tests	
		Aboriginal	Non-Aboriginal
Sex	Males	54.4	80.2
	Females	45.6	19.8
Exposure category	Heterosexual contact	24.9	27.0
	Injection drug use	59.7	29.0
	Sexual contact between males	8.3	33.7
	Other categories	7.1	10.3

Source: Health Canada, Centre for Infectious Disease Prevention and Control, Division of HIV / AIDS Epidemiology and Surveillance, 2002

Note: Includes British Columbia, Yukon, Alberta, Manitoba, Saskatchewan, Prince Edward Island, Newfoundland and Labrador.

### 13c. Verotoxogenic *E. coli*

Verotoxogenic *E. coli* incidence rate.

#### Description

The incidence rate of *Escherichia coli* is the number of reported (laboratory-confirmed) cases per 100,000 population.

#### Definition

The rate of incident cases reported by year.

A confirmed case is defined as laboratory confirmation of infection with or without symptoms with isolation of verotoxin producing *Escherichia coli* from an appropriate clinical specimen.

#### CANADA Verotoxogenic *E. coli* Incidence Rate, Canada, 1991 to 2001

Year	Total rate
1991	7.04
1992	6.05
1993	4.09
1994	4.07
1995	5.09
1996	4.20
1997	4.25
1998	4.91
1999	4.89
2000	5.77
2001	4.04

Source: Health Canada, Notifiable Disease Reports

Notes: 2000 and 2001 numbers are preliminary and are subject to change.

Rates are reported cases per 100,000 population.



### 13d. Chlamydia

Chlamydia incidence rate.

#### Description

The incidence rate for chlamydia is the number of reported (laboratory-confirmed) genital infections per year, per 100,000 population.

#### Definition

Incidence rate of reported genital infections, by calendar year.

A confirmed case is defined as laboratory confirmation of infection — detection of *C. trachomatis* by appropriate laboratory techniques in genitourinary specimens.

#### CANADA

#### Chlamydia Incidence Rates, by Sex and Selected Age Groups, 1995 to 2001\*

Year	Sex	Total	Age group (years)	
			15–19	20–24
1995	Both sexes	126.8	627.6	683.7
	Males	61.9	169.6	335.6
	Females	190.4	1,109.1	1,041.7
1996	Both sexes	114.8	563.3	617.4
	Males	56.0	148.5	302.7
	Females	172.4	998.6	941.2
1997	Both sexes	112.7	548.5	611.2
	Males	58.1	145.6	315.9
	Females	166.2	971.6	914.9
1998	Both sexes	128.8	612.2	696.5
	Males	73.6	184.0	394.1
	Females	182.9	1,063.4	1,011.0
1999	Both sexes	138.2	650.7	750.0
	Males	81.4	186.7	446.9
	Females	193.7	1,138.9	1,066.0
2000*	Both sexes	151.1	714.4	818.7
	Males	89.1	220.0	472.8
	Females	211.8	1,236.1	1,179.4
2001*	Both sexes	161.0	738.5	881.8
	Males	99.1	236.4	538.2
	Females	221.0	1,266.8	1,236.2

Source: Health Canada, Centre for Infectious Disease Prevention and Control ; Division of Sexual Health Promotion and STD Prevention and Control

Notes: Rates are per 100,000 population.

Population estimates provided by Statistics Canada. When comparing with other national publications, minor variations in incidence may exist due to reporting delays, different cut-off dates and date of access to Statistics Canada's population estimates.

\* 2000 and 2001 data are preliminary and changes are anticipated.

### FIRST NATIONS Chlamydia Incidence Rates, by Selected Age Groups, Canada and First Nations (on reserve\*), 1999

		Canada	First Nations
<b>Total</b>		138.2	1,024.7
<b>Age group (years)</b>	15–19	650.7	4,359.6
	20–24	750.0	3,929.4

Sources: Health Canada, Centre for Infectious Disease Prevention and Control, Division of Sexual Health Promotion and STD Prevention and Control; Health Canada, First Nations and Inuit Health Branch, in-house statistics

Note: Rates are per 100,000 population.

\* First Nations data cover all regions except Alberta, 47 of 144 communities in Ontario and 29 of 41 communities in Quebec.

## 13e. Exposure to environmental tobacco smoke

### Description

Self-reported exposure to environmental tobacco smoke represents the percent of the non-smoking population aged 12 and over that reported exposure to environmental tobacco smoke (second-hand smoke) in Canada.

### Definition

Proportion of the non-smoking population regularly exposed to environmental tobacco smoke in public spaces and work places.

### CANADA Exposure to Second-hand Smoke, by Sex and Selected Age Groups, 2000–01

Sex	Age group (years)	Exposure to second-hand smoke %
<b>Both sexes</b>	12–19	39.3
<b>Males</b>		38.3
<b>Females</b>		40.5
<b>Both sexes</b>	20 and over	25.8
<b>Males</b>		28.8
<b>Females</b>		23.1

Source: Statistics Canada, *Canadian Community Health Survey, 2000–01*

Note: Includes non-smoking population aged 12 and over who were exposed to second-hand smoke on most days in the month preceding the survey.

## 14. HEALTH PROMOTION AND DISEASE PREVENTION

### 14a. Smoking

Percent current teenaged smokers.

#### Description

Percent of current teenaged smokers is the proportion of the population aged 12 to 19 that reported that they were current or daily smokers.

#### Definition

Population aged 12 to 19 reporting they are a) current smokers and b) daily smokers at the time of the interview.

### CANADA Smoking Status, by Sex, 1994–95 to 2000–01

Year	Sex	Current daily or occasional smokers %	Daily smokers %	Occasional smokers %
1994–95**	Both sexes	20.9	13.6	7.3
	Males	18.5	12.2	6.3*
	Females	23.5	15.1	8.4*
1996–97**	Both sexes	21.6	15.8	5.9
	Males	20.0	14.9	5.1
	Females	23.3	16.6	6.7
1998–99**	Both sexes	19.4	15.2	4.2
	Males	16.5	13.2	3.3*
	Females	22.4	17.4	5.0*
2000–01	Both sexes	18.7	12.9	5.8
	Males	17.6	12.1	5.5
	Females	19.8	13.6	6.2

Sources: Statistics Canada, *National Population Health Survey*, 1994–95, 1996–97 and 1998–99, cross-sectional sample, health file; *Canadian Community Health Survey*, 2000–01

Notes: Current smokers are defined as those who smoke daily or on an occasional basis.

Population aged 12–19 years.

\* Use with caution (high sampling variability)\*

\*\* Data for *National Population Health Survey* excludes the territories.

### FIRST NATIONS

The First Nations data for this indicator are derived from a telephone survey commissioned by Health Canada with approximately 500 respondents. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues.

### Smoking, First Nations (on reserve), 2002

"Thinking of today and smoking (cigarettes, cigars or pipes), please tell me which of the following best describes you?"	Percent of survey respondents (aged 18 and over)
I have never smoked	18.9
I used to smoke	32.8
I am a smoker	48.3

Source: Health Canada, First Nations and Inuit Health Branch, secondary analysis of Ipsos-Reid, *Awareness and Knowledge Levels of Type 2 Diabetes among Aboriginal Peoples in Canada*, 2002

## 14b. Physical activity

### Description

Physical activity is a set of two indicators that respectively measure the percent of individuals in the population aged 12 and over who reported that they were active or inactive.

### Definition

Population aged 12 and over who report a physical activity index of “active” or “inactive.”

### CANADA Physical Activity, by Sex, 1994–95 to 2000–01

Year	Sex	Moderately active or active* %	Active %	Moderately active %	Inactive %
1994–95**	<b>Both sexes†</b>	39.4	18.6	20.8	54.6
	<b>Males†</b>	42.5	21.9	20.6	49.3
	<b>Females</b>	36.4	15.4	21.0	59.8
1996–97**	<b>Both sexes</b>	41.9	20.0	21.9	55.1
	<b>Males</b>	44.4	23.0	21.4	51.6
	<b>Females</b>	39.4	17.1	22.3	58.5
1998–99**	<b>Both sexes</b>	45.5	21.9	23.7	51.3
	<b>Males</b>	49.2	24.6	24.5	46.9
	<b>Females</b>	42.1	19.2	22.8	55.5
2000–01	<b>Both sexes†</b>	42.6	21.0	21.6	49.1
	<b>Males†</b>	44.8	23.7	21.1	44.2
	<b>Females†</b>	40.6	18.4	22.1	53.8

Source: Statistics Canada, *National Population Health Survey*, 1994–95, 1996–97 and 1998–99, cross-sectional sample, health file; *Canadian Community Health Survey*, 2000–01

Note: Includes household population aged 12 and over.

\* Combined active (expending 3.0 or more kilocalories/kilogram/day) and moderately active (expending 1.5 to 2.9 kilocalories/kilogram/day) levels of physical activity.

\*\* Data excludes the territories.

† Non-response rates were greater than 5% and therefore the data should be interpreted with caution.

## Physical Activity, by Sex and Selected Age Groups, Canada, 2000–01

Sex	Age group (years)	Moderately active or active* %	Active %	Moderately active %	Inactive %
Both sexes	12–19	59.5	38.4	21.1	27.7
	20–34	44.5	22.5	22.0	47.2
	35–44	40.0	18.1	21.9	53.3
	45–64	39.5	17.1	22.4	53.6
	65 and over	34.5	15.2	19.3	56.1
Males	12–19	63.9	44.2	19.7	21.1
	20–34	46.4	25.3	21.1	42.9
	35–44	40.1	19.1	21.0	50.0
	45–64	39.7	18.0	21.7	50.8
	65 and over	40.6	19.5	21.2	46.1
Females	12–19	54.8	32.3	22.5	34.6
	20–34	42.7	19.7	23.0	51.6
	35–44	39.9	17.1	22.8	56.6
	45–64	39.3	16.1	23.2	56.4
	65 and over	29.7	11.8	17.8	63.8

Source: Statistics Canada, *Canadian Community Health Survey, 2000–01*

Note: Non-response rates were greater than 5% for all categories (except females 35–44 and 45–64 years of age) and therefore the data should be interpreted with caution.

Note: Includes household population aged 12 and over.

\* Combined active (expending 3.0 or more kilocalories/kilogram/day) and moderately active (expending 1.5 to 2.9 kilocalories/kilogram/day) levels of physical activity.

## FIRST NATIONS

The First Nations data for this indicator are derived from a telephone survey commissioned by Health Canada with approximately 500 respondents. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues.

### Physical Activity, First Nations (on reserve), 2002

"Thinking of your own level of physical activity, please tell me how many hours per week on average that you exercise, walk, jog, aerobics, etc.?"	Percent of survey respondents (aged 18 and over)
None	5.9
1 to 25	78.2
26 to 50	10.4
51 to 75	1.8
75+	2.4
Do not know	1.3

Source: Health Canada, Health Policy and Communications Branch, Ipsos-Reid, *Awareness and Knowledge Levels of Type 2 Diabetes Among Aboriginal Peoples in Canada, 2002*

### Fitness, First Nations (on reserve), 2002

"Thinking of your own fitness, how fit would you consider yourself to be?"	Percent of survey respondents (aged 18 and over)
Very fit	14.8
Somewhat fit	61.6
Not very fit	18.2
Not at all fit	5.4

Source: Health Canada, Health Policy and Communications Branch, Ipsos-Reid, *Awareness and Knowledge Levels of Type 2 Diabetes Among Aboriginal Peoples in Canada, 2002*

### CANADIAN FORCES

The data were derived from the *Canadian Forces Health and Lifestyle Information Survey, 2000*. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues.

### Physical Activity Index of Regular Members, by Sex and Selected Age Groups, Canadian Forces, 2000

Sex	Age group (years)	Percent of Regular Force member respondents		
		Active	Moderate	Inactive
Males	20–29	55	21	24
	30–44	35	28	37
	45–64	28	28	44
Females	20–29	48	22	31
	30–44	33	27	40
	45–64	26	31	43
<b>Total</b>		36	27	37

Source: *Canadian Forces Health and Lifestyle Information Survey, 2000* (Regular Force members aged 20–64)

## 14c. Body Weight

Body mass index.

### Description

The indicator called body mass index is the percent of the population aged 20 to 64 (excluding pregnant women) who reported a body mass index falling into the categories of either underweight, acceptable weight, overweight or obese.

### Definition

Percent of adults who report a [computed] body mass index in specified categories, ranging from underweight to obese.

Body mass index (BMI) is based on self-reported height and weight, and calculated for persons 20 to 64 years old, excluding pregnant women. Due to different rates of growth for individuals under 20 years of age, the standard BMI is not considered a suitable indicator for this group. BMI is calculated as weight (in kilograms) divided by height (in metres) squared.

### CANADA Body Weight, by Sex, 2000–01

Sex	Percent of population reported as being underweight: BMI under 18.5	Percent of population reported as being acceptable weight: BMI 18.5–24.9	Percent of population reported as being overweight: BMI 25.0–29.9	Percent of population reported as being obese: BMI 30.0 or higher
Both sexes	2.6	48.3	32.5	14.9
Males	1.1	42.7	39.6	16.0
Females	4.2	54.1	25.3	13.9

Source: Statistics Canada, *Canadian Community Health Survey*, 2000–01

Note: Includes household population aged 20 to 64 excluding pregnant women.

### Body Weight, by Selected Age Groups, 2000–01

Age group (years)	Percent of population reported as being underweight: BMI under 18.5	Percent of population reported as being acceptable weight: BMI 18.5–24.9	Percent of population reported as being overweight: BMI 25.0–29.9	Percent of population reported as being obese: BMI 30.0 or higher
20–34	4.3	57.1	26.1	11.3
35–44	2.5	48.4	32.7	14.7
45–64	1.3	40.9	37.8	18.2

Source: Statistics Canada, *Canadian Community Health Survey*, 2000–01

Note: Includes household population aged 20 to 64 excluding pregnant women.

## FIRST NATIONS

The First Nations data for this indicator are derived from a telephone survey commissioned by Health Canada with approximately 500 respondents. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues. It should be cautioned that First Nations data might include pregnant women, whereas Canada data do not.

### Body Weight, First Nations (on reserve), 2002

Percent of survey respondents (aged 18 and over)	
Underweight	1.8
Acceptable weight	20.5
Overweight	41.1
Obese	36.6

Source: Health Canada, First Nations and Inuit Health Branch, secondary analysis of Ipsos-Reid, *Awareness and Knowledge Levels of Type 2 Diabetes Among Aboriginal Peoples in Canada*, 2002

## CANADIAN FORCES

The data were derived from the *Canadian Forces Health and Lifestyle Information Survey*, 2000. The questions may not match the Performance Indicators Reporting Committee requirements, but do address similar issues. It should be cautioned that Canadian Forces data might include pregnant women, whereas Canada data do not.

### Body Weight, by Sex and Selected Age Groups, Canadian Forces, 2000

		Percent of Regular Force member respondents				
		BMI Less than 20	BMI 20–24.9	BMI 25–26.9	BMI 27–29.9	BMI 30 and over
Sex	Age group (years)	Underweight	Acceptable	Some excess	Overweight	Obese
Males	20–29	2	41	26	21	11
	30–44	1	25	26	30	19
	45–64	1	23	26	31	20
Females	20–29	8	63	15	9	5
	30–44	7	47	18	15	14
	45–64	2	44	18	20	16
<b>Total</b>		2	29	25	27	18

Source: *Canadian Forces Health and Lifestyle Information Survey*, 2000 (Regular Force members aged 20–64)



## 14d. Immunization for influenza for 65+

Immunization for influenza.

### Description

Immunization for influenza is the percent of the population aged 65 and older who reported that they had received a flu shot in the last 12–24 months.

### Definition

Population over 65 who report having a flu shot in the past year.

### CANADA

#### Immunization for Influenza, Aged 65 Years and Over, by Sex, 2000–01

Sex	Age group (years)	Percent of population reported to have had influenza immunization, less than one year ago	Percent of population reported to have had influenza immunization, one year or more ago	Percent of population reported to have never had influenza immunization
Both sexes	65 and over	63.0	7.7	23.6
Males		60.1	7.3	24.2
Females		65.2	8.0	23.1
Both sexes	65–74	59.4	7.7	27.8
Males		56.0	8.4	28.5
Females		62.4	7.1	27.1
Both sexes	75 and over	68.4	7.6	17.3
Males		67.8	5.2	16.4
Females		68.7	9.1	17.9

Source: Statistics Canada, *Canadian Community Health Survey, 2000–01*

Note: Non-response rates were greater than 5% for both sexes and males and therefore the data should be interpreted with caution.