Government of Canada Gouvernement du Canada

HEALTHY CANADIANS

A FEDERAL REPORT ON COMPARABLE HEALTH INDICATORS

2008

Canada

Health Canada is the federal department responsible for helping Canadians maintain and improve their health. We assess the safety of drugs and many consumer products, help improve the safety of food, and provide information to Canadians to help them make healthy decisions. We provide health services to First Nations people and to Inuit communities. We work with the provinces to ensure our health care system serves the needs of Canadians.

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Message from the Minister of Health

The Government of Canada is committed to strengthening health care and to maintaining and improving the health of Canadians. To this end, I am pleased to release *Healthy Canadians—A Federal Report on Comparable Health Indicators 2008.*

This report, the fourth of the *Healthy Canadians* series, provides Canadians with important information on areas such as timely access to and quality of health care. This information allows us to track changes over time, make international comparisons and identify potential areas where improvements may be required so that Canadians can continue to enjoy one of the best qualities of life in the world.

It is gratifying to see that, since our last report, most Canadians remain satisfied overall with health care services. Life expectancy, meanwhile, continues to improve, and teenage smoking is at its lowest rate since 2000. Although this is encouraging, work still needs to be done in several areas, including reducing wait times for health care.

As set out in Budget 2007, the Government of Canada is investing $1 billion in new funding to support the provinces and territories in the implementation of wait times guarantees. Other recent initiatives include the creation of the Canadian Partnership Against Cancer to reduce rates of cancer and help Canadians living with cancer. The Government has also recently created the Mental Health Commission of Canada to focus national attention on mental health issues and to work to improve the health and social outcomes of people living with mental illness.

I am grateful to Statistics Canada and the Canadian Institute for Health Information for their important contributions to the production of this report.

I am confident that *Healthy Canadians 2008* will inform discussions on health system renewal and support continued improvements to the health care system and the health of Canadians.

Sincerely,

Leona Aglukkaq
Minister of Health

Statement of Responsibility

Deputy Minister of Health
Health Canada

Management's Responsibility for Health Indicator Reporting

On behalf of the Government of Canada, Health Canada is responsible for the production of *Healthy Canadians—A Federal Report on Comparable Health Indicators 2008*. This report includes information on health indicators that were approved by federal, provincial and territorial Ministers of Health. For this edition, the number of featured indicators has increased substantially, from eighteen to thirty-seven, and demonstrates the commitment of the Government of Canada to improved public reporting.

The comparable health indicators featured in this edition of *Healthy Canadians* reflect the theme areas referred to in the 2003 First Ministers' Accord on Health Care Renewal and the 2004 10-Year Plan to Strengthen Health Care, such as access to health services, quality of care, and health status and well-being.

Health Canada collaborated with Statistics Canada and the Canadian Institute for Health Information to acquire most of the data in this report, and also with the Public Health Agency of Canada to acquire information on the prevalence and incidence of diabetes.

We are confident that data acquired from these sources are reliable and accurate. As a result, this report provides a representative national picture of some of the health issues affecting Canadians. In addition, it helps support health-related activities carried out by the federal government and the health sector by providing the information needed for evidence-based decision making. This will ultimately help Canadians maintain and improve their health.

Challenges continue in the collection and reporting of data, however. For example, infrastructure and data collection standards vary to some extent across the country, affecting the quality of information available to stakeholders. Furthermore, we would like to acknowledge ongoing challenges in the collection and reporting of data on First Nations living on-reserve. Health Canada continues to work with its partners in order to improve data collection across Canada.

This report was produced according to the specifications undertaken for previous *Healthy Canadians* reports. Health indicators used for this current edition have been defined and limitations on data quality have been disclosed and explained. To the best of our knowledge the report is complete and accurate (unless otherwise noted and explained).

Morris Ro

Morris Rosenberg
Deputy Minister of Health

Table of Contents

Annexes

List of Figures

Executive Summary

In 2000, the *First Ministers' Communiqué on Health* outlined the commitment of federal, provincial and territorial governments to improve accountability and reporting to Canadians. It directed them to collaborate and develop a framework of comparable health indicators on health status, health outcomes and quality of service. It also committed governments to comprehensive and regular public reporting. These commitments were reiterated in the 2003 and 2004 Health Accords.

Healthy Canadians—A Federal Report on Comparable Health Indicators 2008 is the fourth in a series of reports on the health status of Canadians and the performance of our health care system.

Healthy Canadians 2008 presents 37 indicators that are based on input from health partners, experts and the public at large, and were identified as being of greatest interest and/or use to Canadians. Data in this report come largely from Statistics Canada and the Canadian Institute for Health Information and concern the general population. In addition, limited information is presented on First Nations and Inuit. Most data are from 2007 except where stated, and all highlighted differences are statistically significant.

Selected highlights from *Healthy Canadians 2008* are presented below:

The General Canadian Population

- Most Canadians (85.2%) aged 15 years and older reported being "very satisfied" or "somewhat satisfied" with the way overall health care services were provided, unchanged from 2005.
- Fewer Canadians younger than 75 years of age were hospitalized in 2005–2006 for chronic conditions (such as diabetes or hypertension) that can be cared for in the community—385 admissions per 100,000 population, down from 459 in 2002–2003.
- Life expectancy for Canadian men has increased to 77.8 years in 2004 from 76.7 in 2000, while it has increased for women to 82.6 years in 2004 from 81.9 years in 2000.
- Canadian men had a prostate cancer incidence rate of 121.0 new cases per 100,000 males in 2005, a decrease from 125.3 new cases per 100,000 males in 2000.
- Canadian women had a breast cancer incidence rate of 97.5 new cases per 100,000 females in 2005, a decrease from 101.9 new cases per 100,000 females in 2000.
- Fewer teenagers reported smoking—12.0% of 12- to 19-year-olds said they were current smokers in 2007, compared to 18.7% in 2000–2001.
- More Canadians aged 15 years and older who required health services for themselves or a family member reported difficulty obtaining immediate care for a minor health problem—25.3% in 2007 compared to 20.7% in 2005.
- Fewer Canadians (61.1%) aged 12 years and older reported that their health was "excellent" or "very good." This is a decrease from 62.5% in 2000–2001.
- Almost one third of Canadians (31.5%) aged 18 years and older reported a height and weight that corresponded to a body mass index (BMI) in the overweight category, unchanged from 2000–2001. In addition, 15.5% reported a height and weight that corresponded to a BMI in the obese category, an increase from 14.1% in 2000–2001.

- Almost half of Canadians (49.7%) aged 12 years and older stated they were active or moderately active—a decrease from 51.6% in 2005. More males (52.1%) than females (47.3%) reported that they were active or moderately active in 2007.
- Fewer seniors (64.1%) aged 65 and older reported having received a flu shot during the 12 months before they were surveyed—a decrease from 66.2% in 2005.

First Nations[1]

- Most (89.4%) First Nations females aged 18 years and over and living on-reserve reported in 2002–2003 ever having a Pap test. The majority (75.6%) reported having at least one Pap test in the past three years.
- Close to half (47.6%) of First Nations females aged 40 to 49 years and living on-reserve reported in 2002–2003 having had a mammogram in their lifetime. In addition, 73.3% of those aged 50 to 59 years and 71.0% of those aged 60 years and over also reported having had a mammogram in their lifetime.
- Over one third (37%) of First Nations adults reported in 2002–2003 a height and weight corresponding to a BMI in the overweight category. Another 31.2% reported a height and weight corresponding to a BMI in obese classes I and II (BMI 30.0 to 39.9), and 4.8% reported a height and weight corresponding to a BMI in obese class III (BMI 40.0 and greater).
- More than a fifth (21.3%) of First Nations adults living on-reserve reported sufficient physical activity in 2002–2003.
- Almost one third (30.1%) of First Nations adults living on-reserve reported in 2002–2003 that they had experienced a time when they felt sad, blue or depressed for two weeks or more in a row.

Inuit[2]

- Life expectancy at birth in Inuit-inhabited areas for the period 1999–2002 was estimated to be 66.9 years.
- The age-standardized suicide rate in Inuit-inhabited areas was 112 per 100,000 population from 1999 to 2003.

Healthy Canadians 2008 also includes information on data limitations to help the reader assess the reliability and validity of the information presented in this report.

This report, as well as the reports from 2002, 2004 and 2006, are available online at:
http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/index-eng.php.

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[1] First Nations data in this report do not come from the same data source used to report on the general population. In addition, caution should be exercised in making direct comparisons with the overall Canadian population as the age structure differs between these two groups.

[2] Inuit data in this report come from two research papers that use a new approach designed to generate Inuit-specific data by matching census information and vital statistics to the geographic locations made up of predominately Inuit inhabitants (such as Nunavut). Caution should be exercised in making direct comparisons with the overall Canadian population as the age structure differs between these two groups.

INTRODUCTION

1.
Introduction

This section provides some background on the Government of Canada's Healthy Canadians series, as well as information on how indicators featured in this report were selected, what is included and what is new for 2008, information on Health Accord theme areas, as well as how the report is organized.

Purpose of this Report

The Government of Canada is committed to being accountable and to reporting to Canadians. To accomplish this, it provides information on comparable health indicators to help stakeholders—such as federal, provincial and territorial jurisdictions and health care providers—track trends and progress towards improving the health of Canadians.

Healthy Canadians—A Federal Report on Comparable Health Indicators 2008, is the fourth in a series of reports to provide the most current information available on the performance of our health care system and the health status of Canadians. Information contained in this report refers mainly to the general population and focuses primarily on youth and adults. Some information is also presented on registered First Nations and recognized Inuit as the federal government—and Health Canada in particular—has a role to play in the provision of health services to these populations.[3]

Background

In 2000, the *First Ministers' Meeting Communiqué on Health*[4] (also referred to as the 2000 Communiqué) outlined the commitment of the federal, provincial and territorial governments to improve accountability and reporting to Canadians. This agreement directed federal, provincial and territorial health ministers to collaborate and develop a framework of comparable health indicators on health status, health outcomes and quality of service.[5] The agreement also committed governments to comprehensive and regular public reporting. By 2002, all jurisdictions had information on some of the comparable indicators and all jurisdictions published a first report.

Building on the work that began under the 2000 Communiqué, the 2003 *First Ministers' Accord on Health Care Renewal*[6] (also known as the 2003 Health Accord) included a commitment to develop additional indicators focused on four themes—Timely Access, Quality, Sustainability, and Health Status and Wellness. Reviewed by experts and stakeholders, these indicators were to measure progress on achieving the reforms set out in the 2003 Health Accord. First Ministers also agreed that jurisdictions would develop the necessary data infrastructure and collect the data needed for quality reporting.

The First Ministers' meeting of 2004 built upon the 2003 Health Accord by reiterating the commitment of governments to strengthen health care in Canada. The meeting resulted in the *10-Year Plan to Strengthen Health Care*, also known as the 2004 Health Accord.[7] It addressed the priorities of Canadians for sustaining and renewing health care, and included additional investments by the federal government of $41.3 billion over 10 years to provinces and territories. As part of their commitment to accountability, First Ministers also agreed to report to Canadians on health system performance.

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[3] Details on these services can be found in Part 2, *The Federal Government's Role in Health*, pages 11–12.

[4] Details on the *First Ministers' Meeting Communiqué on Health* are available at: http://www.tbs-sct.gc.ca/rma/eppi-ibdrp/hrs-ceh/5/FMH-PMS_e.asp .

[5] Part 4, *Health Information—Challenges and Next Steps*, highlights some of the limitations of comparable health indicators.

[6] Additional information on the 2003 *First Ministers' Accord on Health Care Renewal* is available at: http://www.hc-sc.gc.ca/hcs-sss/delivery-prestation/fptcollab/2003accord/index-eng.php .

[7] Additional information on the 2004 Health Accord is available at: http://www.hc-sc.gc.ca/hcs-sss/delivery-prestation/fptcollab/2004-fmm-rpm/index-eng.php .

Development of *Healthy Canadians 2008*

Data and technical descriptions in this report come largely from Statistics Canada and the Canadian Institute for Health Information (CIHI). The companion document, *Comparable Indicators Operational Definitions 2008*, includes details about indicator definitions, rationale, technical specifications, data availability, considerations for indicator quality and comparability, and the parties responsible for data production. It can be viewed on websites hosted by Statistics Canada (http://www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=82-401-XIE&lang=eng) and CIHI (http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=prtwg_2008_e).

Selection of Indicators

Healthy Canadians—A Federal Report on Comparable Health Indicators 2008 acknowledges the important work undertaken in support of the previously mentioned Accords. It uses indicators from the original group of 70 that were developed in consultation with stakeholders and approved by Ministers of Health in 2004. Consultations included subject experts, health professionals and Canadians who provided input through written submissions, public opinion polling, an invitational workshop and focus groups. Although the 70 indicators that were selected represent a good start, they are only the beginning of a longer process both to develop relevant indicators in a changing landscape and to implement a robust data collection infrastructure. Health Canada is committed to ensuring that processes are in place (such as reviewing the 70 indicators to determine if they are still relevant to Canadians and interpreting indicator data in relation to Accord commitments) to provide further advice on the development of additional indicators. Plans for improvements to indicators are outlined in Part IV, *Health Information—Challenges and Next Steps*.

Also in 2004, it was recognized that data were not available for every jurisdiction. For example, information on home care and wait times for cardiac bypass surgery, hip replacement surgery and knee replacement surgery are not routinely available for each province and territory. Therefore, a subset of 18 indicators was selected from the original 70. These 18 indicators were reported on in both the 2004 and 2006 editions of *Healthy Canadians*.

While the availability of comparable health data across jurisdictions continues to be a challenge, *Healthy Canadians—A Federal Report on Comparable Health Indicators 2008* includes the previously reported on subset of 18 indicators, as well as 19 others from the original 70. (These 37 indicators are referred to as “featured” indicators in this report.) An advisory group composed of officials from Health Canada and the Public Health Agency of Canada provided advice and guidance on the development of the report, including the selection of additional indicators. Criteria used to select indicators included data availability across all provinces and territories, and whether indicators were specifically mentioned in the Accords. The complete list of indicators featured in this report can be found in Annex 1. All 70 indicators can be found in Annex 2.

What is Included

To facilitate comparisons with the 2004 and 2006 reports, *Healthy Canadians 2008* includes:

A description of themes—This report, like its predecessors in 2004 and 2006, incorporates the themes identified in recent Health Accords, notably the 2003 Health Accord (see *Health Accord Theme Areas*, on page 4).

A description of featured indicators—Each description states what the indicator measures, including the age of the population the indicator covers, and any special advisories (such as whether data have been updated, or who may have been excluded from the calculation).

An emphasis on Canadians—This report provides the latest available comparable health information on the general population, as well as limited health information on registered First Nations and recognized Inuit.

Data presentation—In Part III, *Measuring Performance*, data are presented in graph and/or table form. Highlights are presented in accompanying text.

Data on all indicators are available on websites hosted by CIHI (http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=prtwg_2008_e) and Statistics Canada (http://www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=82-401-XIE&lang=eng). The data can also be accessed on Health Canada's website at:
http://www.hc-sc.gc.ca/hcs-sss/indicat/index-eng.php.

Data exclusions and limitations—Exclusions and limitations are identified, where possible, for each graph and table included in the report, and they are also listed in Annex 3.

What is New

Healthy Canadians 2008 includes two new features—additional indicators and a description of relevant Accord commitments for each indicator:

Additional indicators—A detailed examination of the Health Accords and the availability of data against the list of 70 original indicators (see Annex 2 for details) yielded a recommended list of additional comparable health indicators.

Examples of these indicators include: Proportion of the population that reports having a regular family doctor; wait times for surgery and specialist visits; infant mortality; low birth weight; mortality rates for lung, prostate, breast and colorectal cancer; mortality rates for acute myocardial infarction and stroke; and potential years of life lost due to suicide or unintentional injury.

Relevance to Accord commitment—For each indicator in *Healthy Canadians 2008*, a description is provided of the Accord commitment that relates to it. For example, the 2000 Communiqué, the 2003 Health Accord and the 2004 Health Accord recognised the importance of health promotion and disease prevention, directing Health Ministers to work on healthy living strategies and initiatives to reduce disparities in health. Smoking is a risk factor in many diseases and smoking cessation can occur as a result of health promotion and education. The indicator, *Self-reported teenage smoking rates*, is an important measure of the prevalence of teenage smoking in Canada and the effectiveness of health promotion initiatives that target this behaviour.

Health Accord Theme Areas

Recent Health Accords included the broad themes outlined below, which are the focus of this report.[8] Examples of performance indicators are provided next to each theme. All featured performance indicators related to the themes are included in Part III, *Measuring Performance*.

Themes

1. Access
2. Quality
3. Health Status and Wellness

Access—Measures access to and waiting times for essential health services across the country. Essential health services encompass a spectrum of primary health care services that provide Canadians with care as soon as possible from multidisciplinary primary health care organizations or teams. Patients often experience their initial point of contact and first level of care with the health system when they access primary health care services. This includes consultations with family physicians, nurses, nurse practitioners and mental health workers, as well as calls to telephone health information lines and advice received from pharmacists. *Examples: self-reported difficulty obtaining routine or ongoing health services; self-reported wait times for specialist physician visits;* and *self-reported wait times for surgery*.

Many people are able to achieve positive health outcomes through early access to diagnostic equipment, which is an essential component in disease detection, diagnosis and treatment. Diagnostic equipment includes high technology devices such as magnetic resonance imagers (MRIs), computed tomography (CT) scanners, nuclear medicine cameras and radiation therapy equipment. *Example: self-reported wait times for diagnostic services*.

Prescription drugs have become a cornerstone in the timely treatment of illness and they represent the second largest share of major health expenditures in Canada (after hospitals).[9] Canadians spend more of their own money (referred to as out-of-pocket expenditures) on prescription drugs than on any other category of health expenditure. Most provincial and territorial governments also provide some drug coverage to certain populations (e.g., low-income Canadians and seniors). This coverage includes items not covered under the *Canada Health Act*, such as drugs prescribed outside of hospitals, as well as ambulance costs and hearing, vision and dental care. However, supplementary health services are largely privately financed. For example, individuals and families who do not qualify for publicly funded coverage may pay for services out-of-pocket, be covered under an employment-based group insurance plan or buy private insurance. *Example: prescription drug spending as a percentage of income.*

Quality—Measures various aspects of the quality of health care services across Canada, such as patient satisfaction and health outcomes. Like access, quality care is an essential part of the health care system and helps ensure that Canadians are able to maintain and improve their health. In addition to addressing satisfaction with hospital, community-based and physician care, this theme also includes the hospitalization rate for ambulatory care sensitive conditions. This refers to long-term health conditions that can generally be managed outside of a hospital setting, such as diabetes or hypertension. *Example: patient satisfaction with the way that services were provided.*

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[8] The themes are based on objectives originating from the Accords, in particular the 2003 Health Accord. Details about the objectives are available at: http://www.hc-sc.gc.ca/hcs-sss/delivery-prestation/fptcollab/2003accord/index-eng.php.

[9] Canadian Institute for Health Information. *Drug Expenditure in Canada, 1985 to 2007*. Ottawa: CIHI; 2008. Available from: http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_80_E.

Health Status and Wellness—Measures the health status of Canadians. Health is determined by a number of factors, including the physical environment, working conditions, biological and genetic endowment, and personal health behaviours. The private, non-governmental and public sectors also have a pivotal role to play and need to work collaboratively to help Canadians achieve and maintain good health. A strong regulatory framework, legislation, health promotion and disease surveillance are examples of what is required to address complex problems such as obesity and health inequities. *Examples: physical activity* and *body mass index.*

Limitations of the Theme-Based Approach

The use of themes can highlight an indicator's relationship to access, quality, and health status and wellness. This helps underscore, for example, the link between difficulties individuals may have accessing health care and the quality of the health system. In many instances an indicator may relate to more than one theme. To illustrate this, consider the indicator *Incidence rate for prostate cancer.* While it can tell us something about health status, it can also be related to quality (if the system implements, for example, more effective screening techniques), or even access (if there are not enough health care providers who are able to provide the screening and diagnostic tests in the first place). Thus, caution should be exercised when attempting to interpret themes.

Organization of this Report

Part II, *The Federal Government's Role in Health*, highlights some of the federal government's activities in the health sector. It also provides a short description of the critical role the provinces and territories play in the delivery of health services. In addition, a brief description is given of some services for First Nations and Inuit.

In Part III, *Measuring Performance*, national-level information is presented on the 37 indicators featured in this report, including: the theme they address; relevance to the Accords; a description and technical definition of what the indicators measure and what data were collected; results; and data sources and related notes. Information on the general population and First Nations and Inuit are presented in separate subsections to help limit comparisons across distinct population groups. For example, First Nations and Inuit tend to be younger than the total Canadian population.[10] In addition, First Nations living on-reserve have their own data source, *The First Nations Regional Longitudinal Health Survey* (RHS), because Statistics Canada's Canadian Community Health Survey (CCHS), one of the main data sources for *Healthy Canadians 2008*, excludes persons living on First Nation reserves. The RHS is a First Nations initiative designed to reflect First Nations health through a cultural perspective.

In Part IV, *Health Information—Challenges and Next Steps*, challenges facing the collection and reporting of health information are highlighted, notably for First Nations and Inuit populations.

Three annexes supplement this report. Annex 1 lists the 18 indicators featured in previous editions of Healthy Canadians and the 19 additional ones selected by Health Canada and the Public Health Agency of Canada for inclusion in this edition. All these indicators were drawn from the list of 70 indicators approved by Ministers of Health for public reporting in 2004 (shown in Annex 2). Annex 3 highlights the main data sources for this report as well as important exclusions and limitations.

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[10] See page 80 for details on the age distribution of First Nations and Inuit.

Note to Readers

All differences shown in the presentation of results on the 37 featured indicators and on First Nations and Inuit indicators are statistically significant ($p<0.05$),[11] and are based on tests that take into account the size of the sample and the design of the survey used, as well as the number of comparisons made.

Comparisons were made between the year for which the most recent data were available and the baseline year. Baseline refers to the year 2000, when the First Ministers' Meeting Communiqué on Health was signed, or the earliest subsequent year for which data were available. Comparisons were also made between the most recent year and the previous period. For example, comparisons may be made between 2007 and 2000 (to describe statistically significant changes that have occurred since the baseline year), and 2007 and 2006 (to describe statistically significant changes that have occurred since the last period). Where possible, comparisons were also made between the sexes.

Age-standardized data are presented when possible. Age-standardization presents the indicator as it would be if the population had a standard age structure. This allows comparisons between areas or time periods, improving comparisons between data from different years by correcting for Canada's aging population[12], or in the case of international comparisons, correcting for the differences in population age structures between the countries involved in the comparison. If the age structures between populations differ substantially, direct comparisons should be limited. For Canadian data, the 1991 Canadian age structure is used as the standard population, but other countries and organizations employ different standard populations (e.g., the 1980 OECD total population). Comparisons between data standardized to different populations should be limited; it is worth noting that the choice of standard population can have an impact on the ranking of the countries being compared.[13]

Caution should be exercised when attempting to identify or describe trends using the information and data found in *Healthy Canadians 2008*. This is because data are often not available covering a long enough time period to reach any conclusions about trends. In addition, the reader should note that statistical significance tells us nothing about what may be causing the noted change. For example, while we may observe a change between two time periods for a given indicator, we may not be able to adequately or fully explain the reasons behind these changes. This is because a given phenomenon (such as physical activity or body mass index) may be influenced by any of a number of variables that are not captured by this report. Other relevant details are presented in the notes beneath the graphs.

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[11] Statistical significance means that an observed difference would be unlikely to occur due to chance alone; the observed difference, therefore, can be attributed to a real difference in the population. The term "$p<0.05$" means there is less than a 5% probability that the difference is due to chance alone. Of note, the sample size in a study is an important determinant in how chance may affect the findings.

[12] Details about Canada's aging population are available at: http://www.phac-aspc.gc.ca/seniors-aines/pubs/fed_paper/pdfs/fedpager_e.pdf.

[13] Ahmad OE, Boschi-Pinto C, Lopez AD, Murray CJL, Lozano R, Inoue M. Age Standardization of Rates: a New WHO Standard (GPE Discussion Paper Series, No. 31) [Internet]. Geneva: World Health Organization; 2000 [cited 2008 Dec 9]. Available from: http://www.who.int/entity/healthinfo/paper31.pdf.

THE FEDERAL GOVERNMENT’S ROLE IN HEALTH

2

2.

The Federal Government's Role in Health

This section presents information on the federal government's role in health. It also includes a brief description of some of the activities that are undertaken within provincial and territorial jurisdictions, and identifies the main health-related expenditures in Canada. A description follows of selected services provided by the Government of Canada.

Many stakeholders are involved in Canada's health care system, including federal, provincial and territorial governments, health care providers, non-governmental organizations, the private sector and the Canadian public. While the provinces and territories are responsible for the management, organization and delivery of health care services to the vast majority of Canadians, the Government of Canada supports the publicly funded health care system by:

- providing funding to provinces and territories through the Canada Health Transfer (CHT) and other transfers targeted to health care
- supporting health research, health promotion and health protection
- direct spending initiatives in areas of federal responsibility

Details of these three activities are provided in the following section, *Expenditures on Health*.

The Government of Canada also administers the *Canada Health Act.* The Act articulates the main objective of Canadian health care policy, which is, "to protect, promote and restore the physical and mental well-being of residents of Canada and to facilitate reasonable access to health services without financial or other barriers." It specifies the criteria and conditions provinces and territories must adhere to—universality, accessibility, portability, comprehensiveness and public administration—in order to receive their full share of the federal cash contribution under the CHT.

The Government of Canada serves as guardian and regulator through legislation and the regulation of drugs and medical devices, consumer products and food, pesticides, chemicals, nuclear and radiological safety, illicit drugs, and through the use of science to assess health risks to Canadians and to put into place mechanisms to mitigate these risks. In addition to providing health services to some populations such as First Nations and Inuit (see description on page 11 for details), the Government of Canada acts as an information provider by generating and sharing knowledge and information for personal decision making, regulations and standards, and health innovations.[14]

The *Canada Health Act* excludes

members of the Canadian Forces, persons appointed to a position of rank within the Royal Canadian Mounted Police, persons serving a prison term in a federal penitentiary, and persons who have not completed a minimum period of residence in a province or territory (a period that must not exceed three months). In addition, the definition of "insured health services" excludes services to persons provided under any other Act of Parliament (e.g., foreign refugees) or under the workers' compensation legislation of a province or territory (see: http://www.hc-sc.gc.ca/hcs-sss/medi-assur/cha-lcs/index-eng.php).

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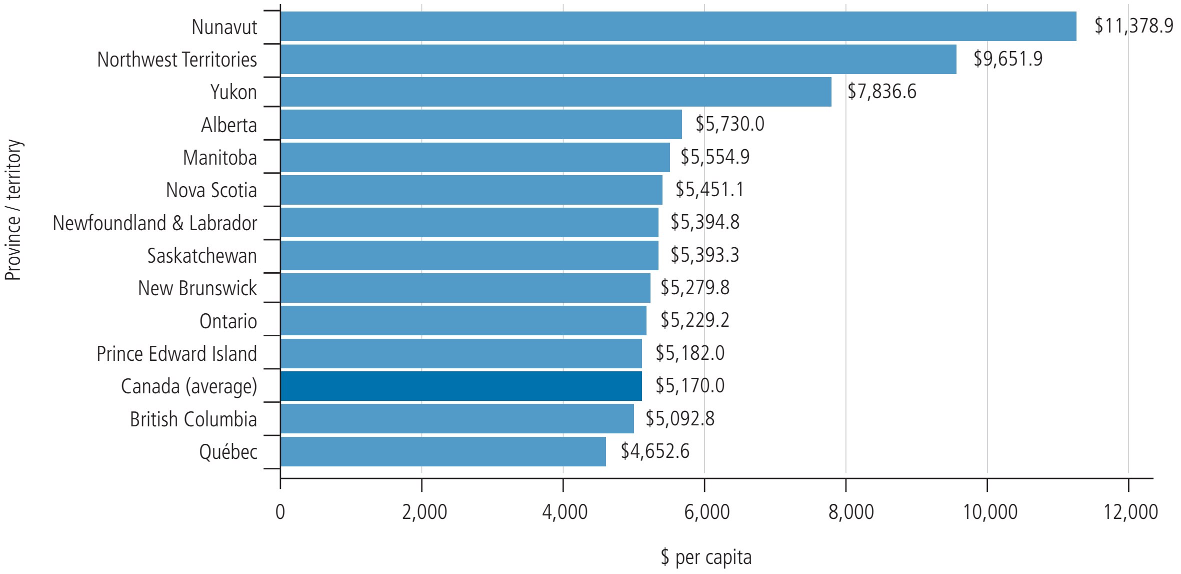
[14] Details about Health Canada's plans, priorities and strategic outcomes are available at: http://www.tbs-sct.gc.ca/rpp/2008-2009/inst/shc/shc-eng.pdf.

Expenditures on Health

Collectively, Canada's federal, provincial and territorial governments ensure that Canadians have access to insured health services on the basis of need and not their ability to pay.[15] Funding to the provinces and territories will amount to over $22.6 billion in cash transfers in 2008–2009 and, with an annual 6% escalator, it will reach over $30 billion per year by 2013–2014.[16]

Figure 1 **Total Health Expenditure**

By province/territory and for Canada, per capita, 2008.



Source: Canadian Institute for Health Information. *National Health Expenditure Trends, 1975–2008, Table B.1.2.*

Notes: These figures are forecast estimates. Final figures will not be available until December 2010.

In 2008, total health expenditures in Canada are forecast to have reached $171.9 billion.[17] While federal health investments are substantial, the provinces and territories have the lion's share of health expenditures, accounting for about 65% of total health expenditures in Canada.[18] It is estimated that they spent over $110.7 billion on health in 2008.[19] Also in 2008, total health expenditures per capita in Canada were estimated to be approximately $5,170 (as shown in the figure *Total Health Expenditure*).

The Government of Canada provided an estimated $6.1 billion in 2008 (as shown in the figure *Federal/ Provincial/ Territorial Government Sector Health Expenditure*) for health research, health promotion and health protection, and for health services provided to population subgroups excluded under the *Canada Health Act*.[20] These population subgroups

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[15] A description of the *Canada Health Act* is available at: http://www.hc-sc.gc.ca/hcs-sss/medi-assur/cha-lcs/index-eng.php.

[16] Details about the Canada Health Transfer are available at: http://www.fin.gc.ca/FEDPROV/chte.html.

[17] Information about health expenditures in Canada is available at: http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=download_form_e&cw_sku=NHEXT7508PDF&cw_ctt=1&cw_dform=N.

[18] CIHI defines health expenditures as encompassing activities that are undertaken with the direct purpose of improving or maintaining health. Details can be found at the web link provided in footnote 17, above.

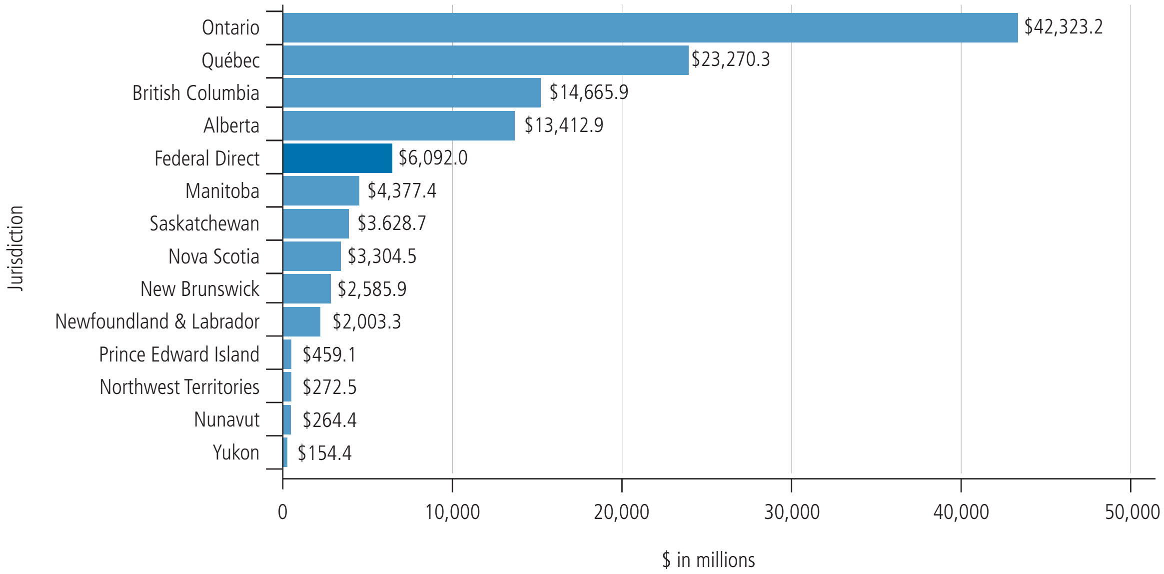
[19] Provincial and territorial health expenditures include provincial/territorial government funds, federal health transfers to the provinces/territories, and provincial government health transfers to municipal governments.

[20] This figure includes direct health care spending to the populations directly served by the federal government, and also includes expenditures for health research, health promotion and health protection. Federal direct health expenditures, as noted in the graph, *Federal/Provincial/Territorial Government Sector Health Expenditure*, do not include federal health transfers to the provinces. Details are available at: http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=download_form_e&cw_sku=NHEXT7508PDF&cw_ctt=1&cw_dform=N .

include military personnel and veterans, members of the Royal Canadian Mounted Police, inmates in federal penitentiaries and persons for whom immigration authorities are responsible (such as refugee claimants, resettled refugees, persons detained under the *Immigration and Refugee Protection Act*, victims of human trafficking and the in-Canada dependents of these individuals).

Figure 2 Federal/Provincial/Territorial Government Sector Health Expenditure

By jurisdiction, 2008



Source: Canadian Institute for Health Information. *National Health Expenditure Trends, 1975–2008, Tables A.2.1 and B.4.1.*

Notes: These figures are forecast estimates. Final figures will not be available until December 2010.

The Government of Canada also advances work on health care priorities—such as the reduction of wait times, the development of Patient Wait Times Guarantees or the strengthening of health human resources—by providing $5.5 billion (from 2004–2005 to 2013–2014) through the Wait Times Reduction Fund[21] and $612 million (from 2007–2008 to 2009-2010) through the Patient Wait Times Guarantee Trust. Moreover, Budget 2007 provided $400 million to Canada Health Infoway to support provincial and territorial development of electronic health records that will reduce wait times and the risk of medical errors, leading to better outcomes, and $30 million over three years to help the provinces and territories undertake innovative projects that will support the implementation of their Patient Wait Times Guarantees.[22]

As a leader in health care renewal, the Government of Canada funds independent, third-party organizations that support the development and transfer of knowledge related to health care issues. These organizations include the Canadian Partnership Against Cancer Corporation, the Mental Health Commission of Canada, the Canadian Patient Safety Institute, and the Canadian Agency for Drugs and Technologies in Health. The Government of Canada also invests in research by funding organizations like the Canadian Institutes of Health Research (CIHR), and supports the development and dissemination of information to advance accountability and informed decision-making by funding CIHI and the Health Council of Canada.

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[21] Details about this are available at: http://www.fin.gc.ca/budget05/bp/bpc3e.htm.

[22] Information about Budget 2007 (which includes the $612 million, $400 million and $30 million mentioned above) is available at: http://www.budget.gc.ca/2007/themes/papemhe.html.

Selected Health Services at a Glance

While several federal government departments provide health services directly to specific populations, this section will only highlight *selected* services provided by Health Canada and the Public Health Agency of Canada.[23]

Health Canada—Plays an important role as knowledge broker, regulator and funder. For example, it helps ensure that Canada's food supply is safe. Although maintaining safety is a shared responsibility among government, industry and consumers, Health Canada's role is to establish policies, set standards and provide advice and information on the safety and nutritional value of food. It promotes the nutritional health and well-being of Canadians by collaboratively defining, promoting and implementing evidence-based nutrition policies and standards. It administers the provisions of the Food and Drugs Act that relate to public health, safety and nutrition, and evaluates the safety, quality and effectiveness of veterinary drugs.

Health Canada plays an active role in ensuring that Canadians have access to safe and effective drugs and health products. Indeed, before drug products (such as prescription and non-prescription pharmaceuticals, disinfectants and sanitizers with disinfectant claims) are authorized for sale in Canada, Health Canada reviews them to assess their safety, efficacy and quality. The Department strives to maintain a balance between the potential health benefits and risks posed by all drugs and health products, and its highest priority in determining this balance is public safety. To accomplish this, it works with other levels of government, health care professionals, patient and consumer interest groups, and research communities and manufacturers. These efforts help minimize the health risks to Canadians.

Health Canada helps protect the Canadian public by researching, assessing and collaborating in the management of the health risks and safety hazards associated with the many consumer products, including pest management products, that Canadians use everyday. For example, Health Canada is actively involved in injury prevention by supporting the development of safety standards and guidelines, enforcing legislation by conducting investigations, inspections, seizures and prosecutions, and testing and conducting research on consumer products. In addition, it provides importers, manufacturers and distributors with hazard and technical information, publishes product advisories, warnings and recalls, and promotes safety and the responsible use of products.

The Department works to protect the health of Canadians from environmental risks. It offers information and advice on some of the most common environmental factors that affect human health: air, noise, soil and water pollution, climate change, environmental contaminants, occupational health and safety, pest control, and radiation. Furthermore, it promotes initiatives to reduce and prevent the harm caused by tobacco and the abuse of alcohol and other controlled substances.

Health Canada develops and enforces numerous regulations (such as Food and Drugs Regulations or Medical Devices Regulations) under Government of Canada legislation. The Department consults with the Canadian public, industry and other interested parties in the development of laws that protect health and safety (such as the previously mentioned Food and Drugs Act). It also prepares guidelines and policies in order to help interpret and clarify the legislation surrounding drugs and health products.

Health Canada provides a range of health programs and services to **First Nations and Inuit**. Primary health care services are provided through nursing stations and community health centres in remote and/or isolated communities to supplement and support the services that provincial, territorial and regional health authorities provide. Non-Insured Health Benefits (NIHB) coverage includes drug, dental care, vision care, medical supplies and equipment, mental health services and medical transportation. NIHB is available to approximately 799,000 registered Indians and recognized Inuit in Canada, regardless of residence. Disease prevention and health promotion programs, public health, environmental health, alcohol/

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[23] For more information about health-related programs and services undertaken by the Government of Canada, consult the following websites: http://www.hc-sc.gc.ca/ (Health Canada), and/or http://www.phac-aspc.gc.ca/ (Public Health Agency of Canada).

drug addiction treatment, and home and community care services are also provided on-reserve. In addition, Health Canada administers targeted health promotion programs for all Aboriginal people regardless of residence (such as the Aboriginal Diabetes Initiative), and other programs that support the development and implementation of activities to promote healthy lifestyle choices and contribute to the prevention of chronic disease and injuries. In 2007–2008, resources of approximately $2.1 billion were made available for federal First Nations and Inuit Health Programs. For definitions related to Aboriginal populations, see page 14.

For more information about Health Canada's programs and services, visit: http://www.hc-sc.gc.ca/.

Public Health Agency of Canada—Focuses on understanding the factors that underlie our collective health, preventing injuries and chronic disease, and effectively preparing for and responding to public health emergencies and infectious disease outbreaks.

Working with partners at the local, regional, national and international levels, the Agency's primary role is to lead federal efforts and mobilize pan-Canadian action in preventing disease and injury, and promoting and protecting national and international public health by:

- anticipating, preparing for, responding to and recovering from threats to public health
- carrying out surveillance, monitoring, researching, investigating and reporting on diseases, injuries, other preventable health risks and their determinants, as well as the general state of public health in Canada and in the international community
- using the best available evidence and tools to advise and support public health stakeholders nationally and internationally as they work to enhance the health of their communities
- providing public health information, advice and leadership to Canadians and stakeholders
- building and sustaining a public health network with stakeholders

The Public Health Agency of Canada manages numerous centres, including the Centre for Chronic Disease Prevention and Control, the Center for Communicable Diseases and Infection Control, and the Centre for Emergency Preparedness and Response.

The **Centre for Chronic Disease Prevention and Control** (CCDPC) has a mandate to provide strategic leadership in the development and implementation of integrated chronic disease prevention and control strategies, and to work with relevant stakeholders at national and international levels to ensure an integrated approach to chronic disease prevention and control. The CCDPC focuses on three key strategic priorities:

- Knowledge development and dissemination—building and disseminating the evidence base on best practices and lessons learned to support chronic disease policies and programs.
- Policy and program development—supporting policies and programs that inform on comprehensive approaches to chronic disease prevention and control.
- Surveillance—supporting the development of integrated surveillance systems that inform chronic disease policy.

The **Centre for Communicable Diseases and Infection Control** (CCDIC) promotes improvement in the health status of Canadians in the area of infectious diseases through public health action. These public health actions include surveillance and epidemiology, risk management, research including laboratory science, health promotion, public health policy development, and prevention and care programs.

The objectives of CCDIC are to decrease transmission of infectious diseases and to improve the health status of those infected. Its program areas include infectious disease surveillance and risk assessments, foodborne, zoonotic and environmentally acquired infections, immunization and respiratory infections, community acquired infections (hepatitis C, sexually transmitted infections, and tuberculosis), blood safety surveillance and health care acquired infections, HIV/AIDS policy/coordination/programs, and HIV and retrovirology laboratories.

CCDIC works in close partnership with Canada’s provinces and territories and with international agencies to accomplish its goals.

The **Centre for Emergency Preparedness and Response** (CEPR) is Canada’s central coordinating point for public health security issues. Among its many responsibilities, CEPR:

- develops and maintains national emergency response plans for the Public Health Agency of Canada and Health Canada
- monitors outbreaks and global disease events
- assesses public health risks during emergencies
- contributes to keeping Canada’s health and emergency policies in line with threats to public health security and general security for Canadians in collaboration with other federal and international health and security agencies
- is responsible for the important federal public health rules governing laboratory safety and security, quarantine and similar issues
- is the health authority in the Government of Canada on bioterrorism, emergency health services and emergency response

For more information about the Public Health Agency of Canada’s programs and services, visit: http://www.phac-aspc.gc.ca/.

Definitions Related to Aboriginal Populations

Aboriginal: A person who reports identifying with at least one Aboriginal group (North American Indian, Métis or Inuit), including Treaty or Registered Indians as defined by Canada's *Indian Act*, as well as members of an Indian Band or First Nation.[1]

First Nations peoples: Although there is no legal definition for the term First Nation, it is widely used to describe Status and Non-Status Indian peoples in Canada. The term replaced "Indian" in the 1970s because some people found this word offensive.[2]

North American Indians: Individuals who may or may not be Registered or Status Indians but who identify themselves as North American Indians.[1]

Inuit: In Inuktitut, the Inuit language, Inuit means "the people" and generally replaces the word "Eskimo" which is no longer in common usage in Canada. Most Inuit live in Nunavut, the Northwest Territories, and northern parts of Labrador and Québec.[2]

Recognized Inuit (for specific health services): Refers to Inuit recognized by one of the Inuit land claim organizations.[3]

Reserve: An area of land, whose legal title the Crown holds, which is designated for the use and advantage of an Indian band. Certain bands use more than one reserve.[2]

On-Reserve: Refers to people, services or objects relating to First Nations people that are part of a reserve (e.g., on-reserve businesses).[2]

Off-Reserve: Refers to people, services or objects relating to First Nations people that are not part of a reserve (e.g., off-reserve housing).[2]

Non-Reserve: Refers to Aboriginal people/populations who are not affiliated with a reserve, such as Inuit (who do not live on reserves).[1]

Status Indian (Registered First Nation): Refers to individuals recognized by the federal government as persons registered under the *Indian Act*.[2]

Non-Status Indian: People of First Nation ancestry who are not registered under the *Indian Act*.[2]

[1] Statistics Canada

[2] Indian and Northern Affairs Canada

[3] Health Canada

MEASURING PERFORMANCE

3

3.

Measuring Performance

Healthy Canadians—A Federal Report on Comparable Health Indicators 2008 provides the reader with the most current information available on the performance of our health care system and the health status of Canadians.

The first part of this section concerns the general population. It presents information on each of the 37 featured indicators and reflects the themes identified in recent Health Accords. The relevance of specific Accord commitments to each featured indicator is also highlighted.

In cases where data were available, international information is provided that compares data for various health indicators among the G7 countries. This may help the reader understand Canadian data in a broader international context and allows, in some instances, comparisons over time and between countries.

G7 countries…

… are the original seven largest industrialized economies in the world: Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

The second part of this section presents available data on First Nations living on-reserve and recognized Inuit, as the federal government has a role to play in the provision of health services to these populations.

Overall, information presented in *Healthy Canadians 2008* shows health status improvements in several areas, such as life expectancy, ambulatory care sensitive conditions (chronic conditions that can be managed within the community rather than hospital settings), teenage smoking rates and mortality rates for prostate and breast cancer. While this is certainly encouraging, declines have been observed in other areas, such as in body mass index (notably in the obese category), physical activity and incidence and prevalence rates for diabetes.

Although variation exists in the measurement and collection of wait times information across Canada, CIHI continues to make good progress in working with provinces and territories to develop and implement a common approach. As a complement to these efforts, Statistics Canada collects self-reported wait times information that is comparable across the country. However, as is mentioned in Annex 3, self-reported information is subject to known limitations.

It should be noted that indicators featured in Healthy Canadians represent only a part of the story on Canada's health care system and the health status of Canadians. In addition, some contradictions in the observed data have been noted. For example, most Canadians report that their health was "excellent" or "very good," yet the data also show that close to half of the population report a body mass index corresponding to the overweight and obese categories.

Further research —as well as the development of additional relevant indicators and the collection of data—will contribute to a more fully developed picture of health status and health system performance in Canada, and to our shared understanding of progress against Accord commitments.

THEME—ACCESS

GENERAL POPULATION

In the 2000 Communiqué, the 2003 Health Accord and the 2004 Health Accord (the Accords), jurisdictions agreed to work together to improve access to and the quality of health services that are of the highest priority to Canadians. The indicators in this subsection relate specifically to issues of access to health services.

1. Proportion of the population that reports having a regular family doctor

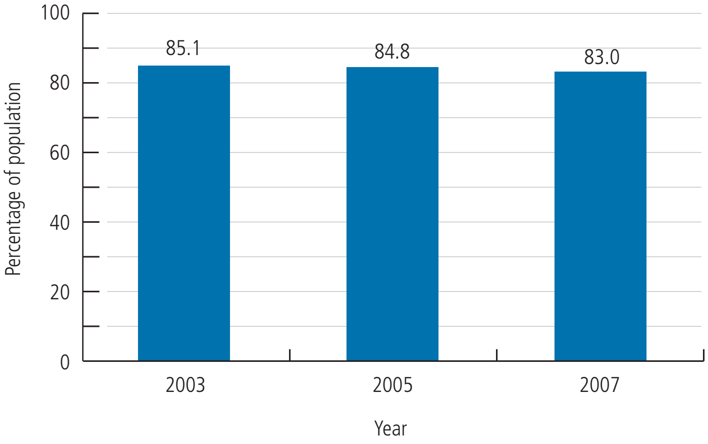
Relevance: All Accords stressed the importance of primary care renewal and improving access to primary care physicians. Access to a family doctor helps ensure that people requiring diagnostic services and treatment get it when they need it, and it is an essential part of Canada's health care system. Further to this, First Ministers agreed to continue and accelerate their work on health human resource action plans and/or initiatives to ensure an adequate supply and appropriate mix of health care professionals. The indicator *Proportion of the population that reports having a regular family doctor* helps us understand the extent to which this commitment is being accomplished.

Description: This indicator measures the percentage of the population aged 15 and over who answered "yes" to the question: "Do you have a regular family doctor?"

Advisory to Readers: Fundamental changes in the organization and delivery of health services are occurring as primary health care reform takes place in Canada. While family doctors are an important part of the delivery of health services, other health care professionals are also available to Canadians (including nurse practitioners and physicians working in walk-in clinics) to provide comprehensive prevention and treatment services which will result in improved health.[24]

Figure 3 Proportion of Population that Reports Having a Regular Family Doctor

Percentage of population aged 15 and over having a regular family doctor, both sexes (age-standardized), Canada,* 2003, 2005 and 2007



Sources: Statistics Canada. Health Services Access Survey; supplement to the Canadian Community Health Survey, 2003, 2005 and 2007.

Notes: *For 2003 and 2007, Canadian totals do not include the Yukon Territory, Northwest Territories and Nunavut. For 2005, the Canada total includes the Yukon Territory, Northwest Territories and Nunavut's 10 largest communities.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Results: In 2007, the percentage of Canadians reporting that they have a regular family doctor was 83.0%, a decrease from the 85.1% and 84.8% reported in 2003 and 2005, respectively.

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[24] Details about primary health care reform are available at: http://www.hc-sc.gc.ca/hcs-sss/prim/index-eng.php.

2. Self-reported difficulty obtaining routine or ongoing health services

3. Self-reported difficulty obtaining health information or advice

4. Self-reported difficulty obtaining immediate care

Relevance: The 2003 and 2004 Health Accords were clear that all Canadians should have timely access to health services and committed jurisdictions to reporting on access indicators to measure both access to services and the wait times associated with them. Reported difficulty accessing services is an important measure of the Canadian public's ease interacting with the health care system. Lower rates are, of course, desirable as they can be interpreted as meaning there has been either a reduction in the need for these services, or more likely that these services are easier to access.

Description: Grouped in this category are indicators measuring the percentage of the population 15 years of age and older who required health services for self or a family member in the 12 months prior to being surveyed, and who reported difficulties obtaining routine or ongoing health services, health information or advice, and immediate care for a minor health problem at any time of the day.

Routine or ongoing health services…

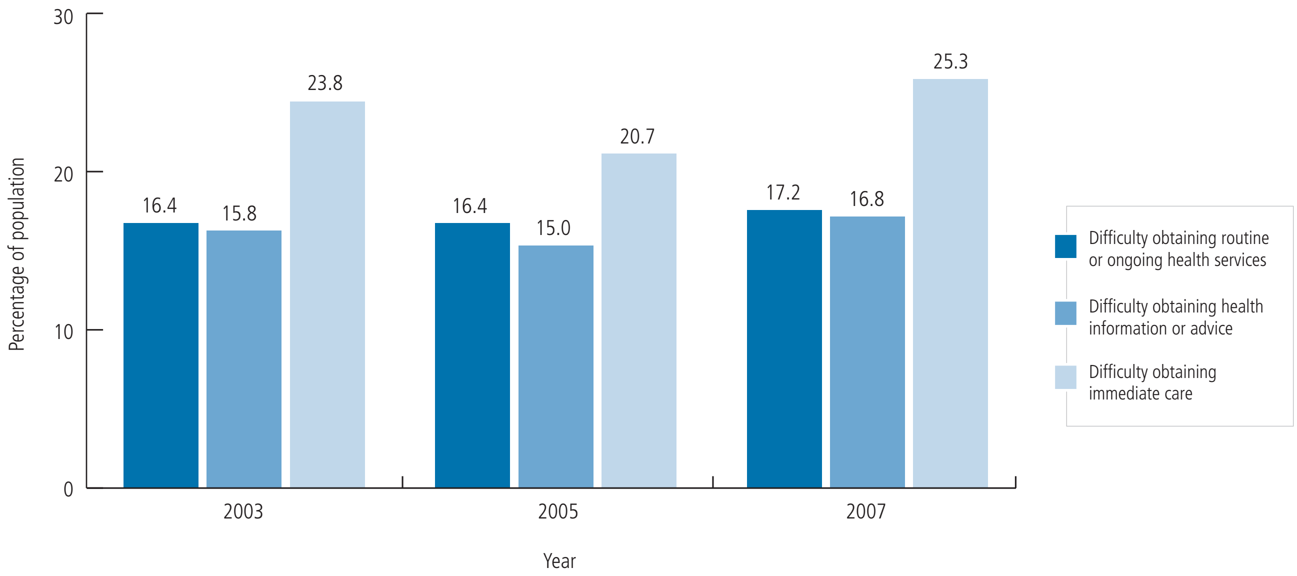
…corresponds to health care provided by a family or general physician including an annual check-up, blood tests or routine care for an ongoing illness (for example, prescription refills).

Minor health problem…

… includes fever, vomiting, major headaches, sprained ankle, minor burns, cuts, skin irritation, unexplained rash, and other non-life threatening health problems or injuries due to a minor accident.

Figure 4 Self-Reported Difficulty Accessing Health Services, Health Information or Advice, and Immediate Care

Percentage of population reporting difficulty obtaining various health services, both sexes (age-standardized), Canada,* 2003, 2005 and 2007



Sources: Statistics Canada. Health Services Access Survey; supplement to the Canadian Community Health Survey, 2003, 2005 and 2007.

Notes: Includes household population aged 15 and older reporting difficulties accessing these services in the 12 months prior to the survey, for self or a family member. *For 2003 and 2007, Canadian totals do not include the Yukon Territory, Northwest Territories and Nunavut.

For 2005, the Canada total includes the Yukon Territory, Northwest Territories and Nunavut's 10 largest communities.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Results: Most Canadians requiring routine or ongoing health services, health information or advice, and immediate care for a minor health problem do not report difficulties obtaining them. However, an increase was seen in the percentage of Canadians aged 15 years and older who required health services and who reported difficulties obtaining immediate care for a minor health problem—from 20.7% in 2005 to 25.3% in 2007. The percentage of Canadians aged 15 years and older who reported difficulties obtaining health information or advice also increased—from 15% in 2005 to 16.8% in 2007.

5. Self-reported wait times for diagnostic services

Relevance: Under the 2004 Health Accord, governments committed to establish evidence-based benchmarks for medically acceptable wait times in five priority areas: cancer, heart, diagnostic imaging, joint replacement and sight restoration. Tracking wait times is an important part of assessing health system performance. The indicator *Self-reported wait times for diagnostic services* is a valuable measure of wait times in Canada.

Description: This indicator includes two sub-indicators that report on wait times for diagnostic services. They are;

a) **Self-reported median wait time for diagnostic services,** which measures the median number of weeks people aged 15 years and older reported waiting for diagnostic services.

b) **Distribution of reported wait times for diagnostic services,** which measures the percentage of people aged 15 years and older that had a diagnostic service and reported waiting less than one month, between one and three months, or more than three months to receive the service, during the 12 months prior to being surveyed.

Median wait time …

… is the 50th percentile of the distribution of wait times: half the patients wait less and half wait longer than the median number of weeks.

Advisory to Readers: Patients who had not yet received the service were excluded from the indicator calculation.

Diagnostic tests only include the following: non-emergency magnetic resonance imaging (MRI) devices that do not use X-rays to detect and treat illness inside the body; computed tomography (CT or CAT) scans that use X-rays for illness detection and treatment; and angiographies that use X-rays to examine the inner opening of blood-filled structures such as veins and arteries.

Figure 5 Self-Reported Wait Times for Diagnostic Services

Median wait times, both sexes (age-standardized), Canada,* 2003, 2005 and 2007

	2003	2005	2007
Number of weeks	2**	3	2

Sources: Statistics Canada. Health Services Access Survey; supplement to the Canadian Community Health Survey, 2003, 2005 and 2007.

Notes: Based on household population aged 15 and older reporting having had a diagnostic test in the 12 months prior to the survey.

Diagnostic tests include non-emergency MRIs, CT scans and angiographies only.

* For 2003 and 2007, the Canada totals do not include the Yukon Territory, Northwest Territories and Nunavut. For 2005, the Canadian total includes the Yukon Territory, Northwest Territories and Nunavut's 10 largest communities.

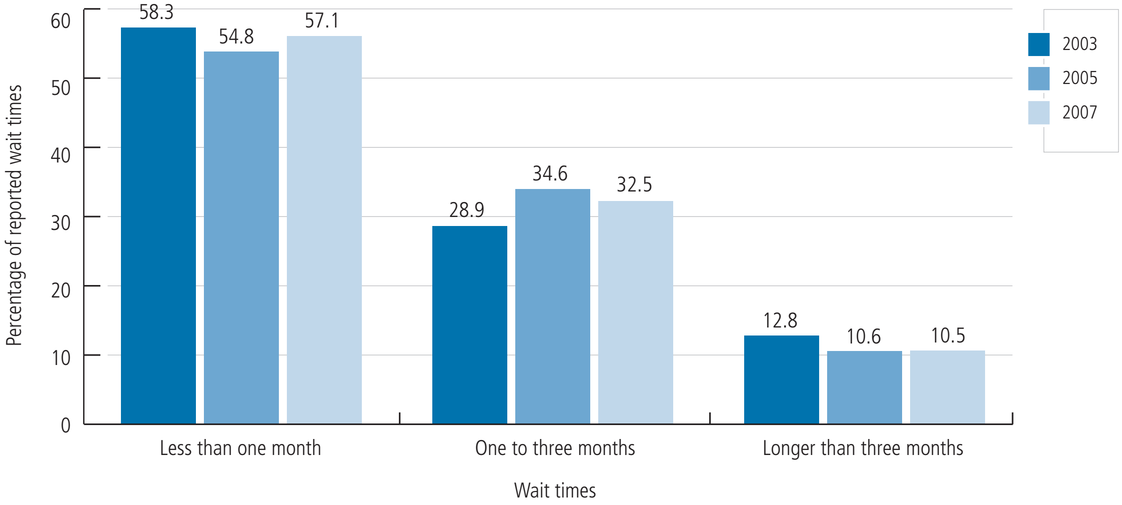
** Since the variability of this data point is relatively high (with a coefficient of variation between 16.6% and 33.3%), it should be used with caution.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 6 Self-Reported Wait Times for Diagnostic Services

Distribution of wait times, both sexes (age-standardized), Canada,* 2003, 2005 and 2007.



Sources: Statistics Canada. Health Services Access Survey; supplement to the Canadian Community Health Survey, 2003, 2005 and 2007.

Notes: Based on household population aged 15 and older reporting having had a diagnostic test in the 12 months prior to the survey.

Diagnostic tests include non-emergency MRIs, CT scans and angiographies only.

*For 2003 and 2007, the Canada totals do not include Yukon Territory, Northwest Territories and Nunavut. For 2005, the Canadian total includes the Yukon Territory, Northwest Territories and Nunavut's 10 largest communities.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Results: In 2007, most Canadians (57.1%) aged 15 years and older who had a diagnostic service reported waiting less than one month for their test. However, 10.5% of Canadians reported that they waited over three months for diagnostic testing.

6. Self-reported wait times for specialist physician visits

Relevance: The 2004 Health Accord committed jurisdictions to achieving meaningful reductions in wait time priority areas such as cancer, heart, diagnostic imaging, joint replacements and sight restoration by March 31, 2007. Related to this, jurisdictions also committed to ensuring an adequate supply and mix of health care professionals. The indicator *Self-reported wait times for specialist physician visits* is an important wait times measure and helps us understand how long Canadians are waiting to access specialists.

Description: This indicator includes two sub-indicators that report on wait times for specialist physician visits. They are:

a) **Median wait time for specialist physician visits,** which measures the length of time, in weeks, people aged 15 years and older reported waiting to see a specialist physician.

b) **Distribution of wait times for specialist physician visits,** which measures the percentage of people aged 15 years and older who were seen by a specialist and reported waiting less than one month, between one to three months, or more than three months to receive the service, during the 12 months prior to the survey.

Median wait time …

… is the 50th percentile of the distribution of wait times: half the patients wait less and half wait longer than the median number of weeks.

Advisory to Readers: Patients who had not yet received the service were excluded from the indicator calculation. This indicator includes the above-mentioned Accord priority areas and other areas as well.

Figure 7 Self-Reported Wait Times for Specialist Physician Visits

Median wait times, both sexes (age-standardized), Canada,* 2003, 2005 and 2007

	2003	2005	2007
Number of weeks	4.0	4.0	4.3

Sources: Statistics Canada. Health Services Access Survey; supplement to the Canadian Community Health Survey, 2003, 2005 and 2007.

Notes: Based on household population aged 15 and older reporting having seen a specialist physician for a diagnosis or consultation for a new illness or condition in the 12 months prior to the survey.

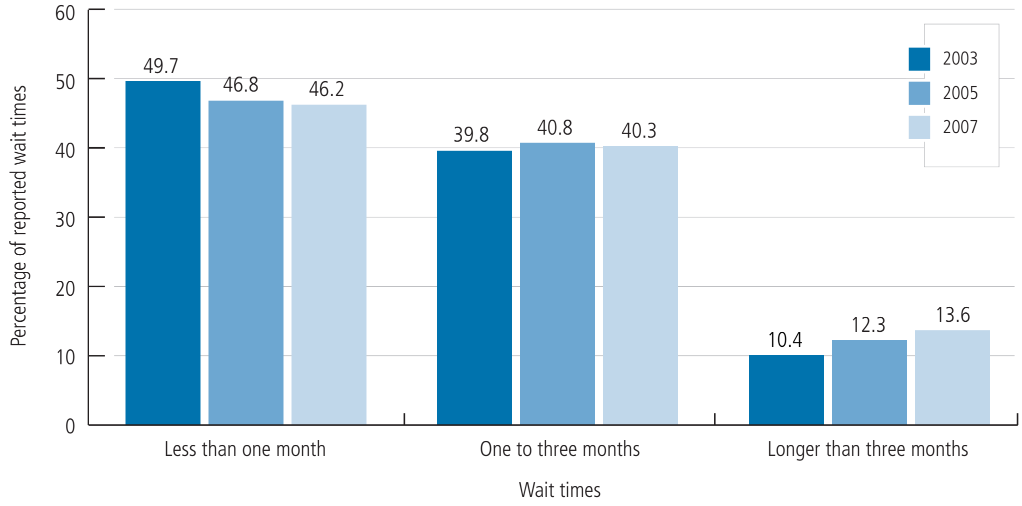
*For 2003 and 2007, the Canada totals do not include Yukon Territory, Northwest Territories and Nunavut. For 2005, the Canadian total includes the Yukon Territory, Northwest Territories and Nunavut's 10 largest communities.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 8 Self-Reported Wait Times for Specialist Physician Visits

Distribution of wait times, both sexes (age-standardized), Canada,* 2003, 2005 and 2007



Sources: Statistics Canada. Health Services Access Survey; supplement to the Canadian Community Health Survey, 2003, 2005 and 2007.

Notes: Based on household population aged 15 and older reporting having seen a specialist physician for a diagnosis or consultation for a new illness or condition in the 12 months prior to the survey.

*For 2003 and 2007, the Canada totals do not include Yukon Territory, Northwest Territories and Nunavut. For 2005, the Canadian total includes the Yukon Territory, Northwest Territories and Nunavut's 10 largest communities.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Results: The median wait time for specialist physician visits for a new illness or condition was 4.3 weeks in 2007. Regarding the distribution of wait times, 46.2% of Canadians waited less than one month for specialist physician visits, while 40.3% waited from one to three months, and 13.6% waited longer than three months, an increase since 2003 when 10.4% reported waiting more than three months.

7. Self-reported wait times for surgery

Relevance: In the Accords, First Ministers directed Health Ministers to work together to improve access to and the quality of health services that are of the highest priority to Canadians. Furthermore, in the 2004 Health Accord, jurisdictions committed to achieving meaningful reductions in wait time priority areas such as cancer, heart, diagnostic imaging, joint replacements, and sight restoration. The indicator *Self-reported wait times for surgery* is another important aspect of the wait times issue.

Description: This indicator includes two sub-indicators that report on wait times for surgery. They are:

a) **Median wait time for surgery**, which measures the length of time, in weeks, people aged 15 years and older reported waiting for non-emergency surgery.

b) **Distribution of wait times for surgery**, which measures the percentage of people aged 15 years and older who accessed non-emergency surgery and reported waiting less than one month, between one to three months, or more than three months to receive the service, during the 12 months prior to the survey.

Median wait time …

… is the 50th percentile of the distribution of wait times: half the patients wait less and half wait longer than the median number of weeks.

Advisory to Readers: Patients who had not yet received the service were excluded from the indicator calculation. This indicator includes the above-mentioned Accord priority areas and other areas as well.

Figure 9 Self-Reported Wait Times for Non-Emergency Surgery

Median wait times, both sexes (age-standardized), Canada,* 2003, 2005 and 2007

	2003	2005	2007
Number of weeks	4.3	4.3	4.3

Sources: Statistics Canada. Health Services Access Survey; supplement to the Canadian Community Health Survey, 2003, 2005 and 2007.

Notes: Based on household population aged 15 and older reporting having had non-emergency surgery in the 12 months prior to the survey.

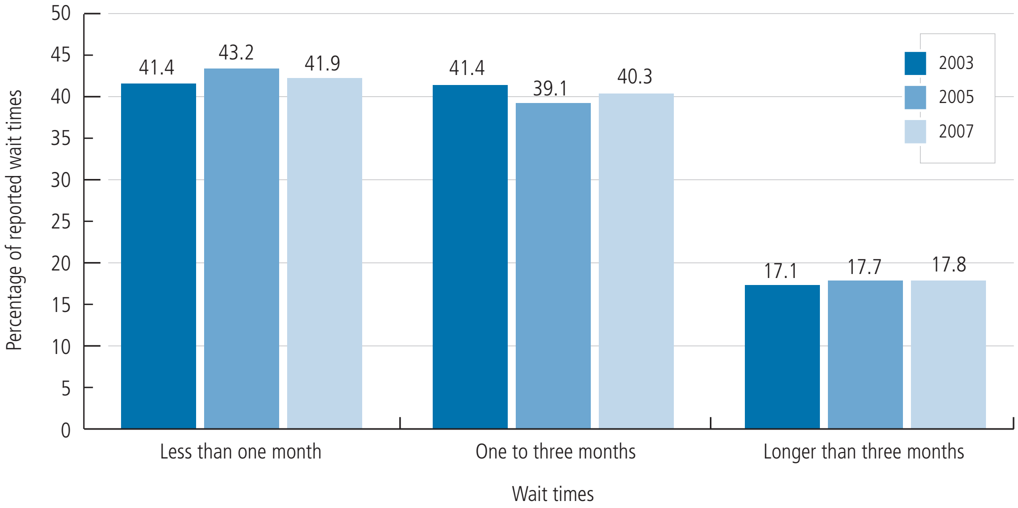
* For 2003 and 2007, the Canada totals do not include the Yukon Territory, Northwest Territories and Nunavut. For 2005, the Canadian total includes the Yukon Territory, Northwest Territories and Nunavut's 10 largest communities.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 10 Self-Reported Wait Times for Non-Emergency Surgery

Distribution of wait times, both sexes (age-standardized), Canada,* 2003, 2005 and 2007



Sources: Statistics Canada. Health Services Access Survey; supplement to the Canadian Community Health Survey, 2003, 2005 and 2007.

Notes: Based on household population aged 15 and older reporting having had non-emergency surgery in the 12 months prior to the survey.

*For 2003 and 2007, the Canada totals do not include Yukon Territory, Northwest Territories and Nunavut. For 2005, the Canadian total includes the Yukon Territory, Northwest Territories and Nunavut's 10 largest communities.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Results: In 2007, the median wait time for non-emergency surgeries remained steady at 4.3 weeks, the same figure reported in both 2003 and 2005. Regarding distribution of wait times, 41.9% of Canadians reported that they waited less than one month, while 40.3% of Canadians reported that they waited one to three months, and 17.8% of Canadians reported that they waited longer than three months.

8. Self-reported prescription drug spending as a percentage of income

Relevance: In the 2003 Health Accord, First Ministers agreed to promote optimal drug use, best practices in drug prescription, and to better manage the costs of all drugs, including generic drugs. This helps ensure that drugs are safe, effective and accessible in a timely and cost-effective fashion. Governments are also committed to expanded and accelerated collaboration in pharmaceuticals management on various fronts. The indicator *Self-reported prescription drug spending as a percentage of income* represents a start in our understanding of what Canadians are spending out-of-pocket to cover their drug expenses.

Description: This indicator measures the percentage of Canadian households reporting out-of-pocket expenditures on prescription drugs over given percentages (i.e., 0%, 1%, 2%, 3%, 4% and 5%) of total after-tax income.

Advisory to Readers: Information on spending as reported by households represents an estimate and not the actual amount.

After-tax income…

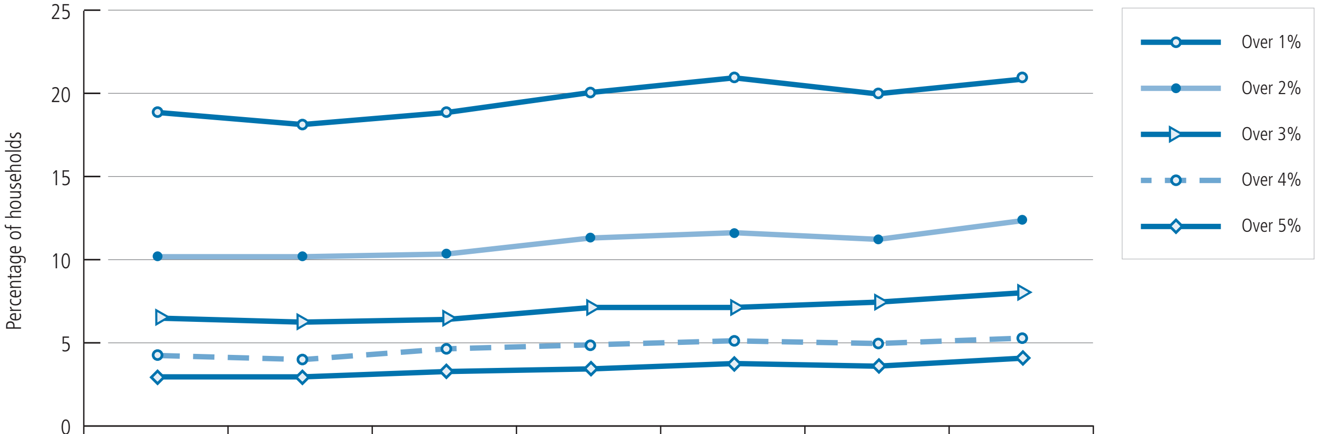
…is total income minus personal taxes.

Out-of-pocket…

. . . refers to a full or partial expenditure that is not reimbursed through a drug plan or other health insurance plan.

Figure 11 Self-Reported Out-of-Pocket Prescription Drug Expenditures as a Percentage of After-Tax Income

By percentage of after-tax income, Canada, 2000–2006



	2000	2001	2002	2003	2004	2005	2006
Over 0%	64.9	65.4	65.2	64.8	65.3	65.3	65.7
Over 1%	19.0	18.6	19.1	20.3	21.0	20.0	21.0
Over 2%	10.3	10.2	10.5	11.3	11.7	11.3	12.4
Over 3%	6.3	6.2	6.5	7.1	7.1	7.5	8.0
Over 4%	4.0	3.8	4.5	4.7	5.0	4.8	5.2
Over 5%	2.9	2.7	3.0	3.1	3.5	3.3	3.8

Year

Sources: Statistics Canada. Survey of Household Spending, 2000, 2001, 2002, 2003, 2004, 2005 and 2006.

Notes: Prescription drug spending only includes prescription drugs purchased by households.

Over-the-counter drugs and drugs paid for by governments or insurance companies are not included.

Premiums for health care plans are not included.

For additional exclusions/limitations, see Annex 3.

Results: In 2006, over one in five households were spending more than 1% of their after-tax income on prescription drugs. The percentages of Canadian households reporting out-of-pocket expenditures of over 1%, 2%, 3%, 4% and 5% of their after-tax income increased from 2000 to 2006.

THEME—QUALITY

GENERAL POPULATION

In the 2000 Communiqué and the 2003 Health Accord, First Ministers agreed to develop indicators to help measure the quality of health care services across the country, including patient safety, patient satisfaction and health outcomes, as they recognized the importance of developing a shared agenda amongst stakeholders to renew and strengthen Canada's health care system. This would help improve the health of Canadians. All three Accords also committed First Ministers to ensuring that Canadians viewed their health care system as efficient and responsive, and adapting to their changing needs and those of their families and communities.

9. Self-reported patient satisfaction with overall health care services

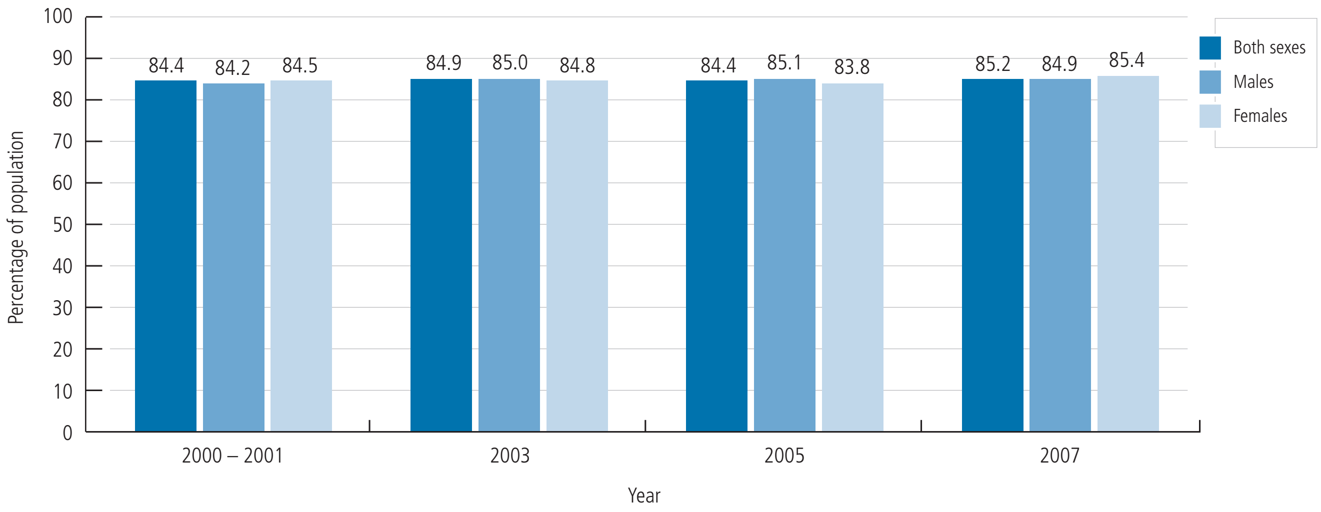
Relevance: The indicator *Self-reported patient satisfaction with overall health care services* is an important measure of health system performance.

Description: This indicator measures the percentage of the population aged 15 and older who used health care services in the 12 months prior to being surveyed, and who reported they were either "very satisfied" or "somewhat satisfied" with the way the services were provided.

Advisory to Readers: The actual meaning of the indicator is patient satisfaction with *the way* the service was provided and not with the service as a whole.

Figure 12 Self-Reported Patient Satisfaction with Overall Health Care Services

Percentage of population who were "very satisfied" or "somewhat satisfied" with the way overall health care services were provided, by sex (age-standardized), Canada, 2000–2001, 2003, 2005 and 2007



Sources: Statistics Canada. Canadian Community Health Survey, 2000–2001, 2003, 2005 and 2007.

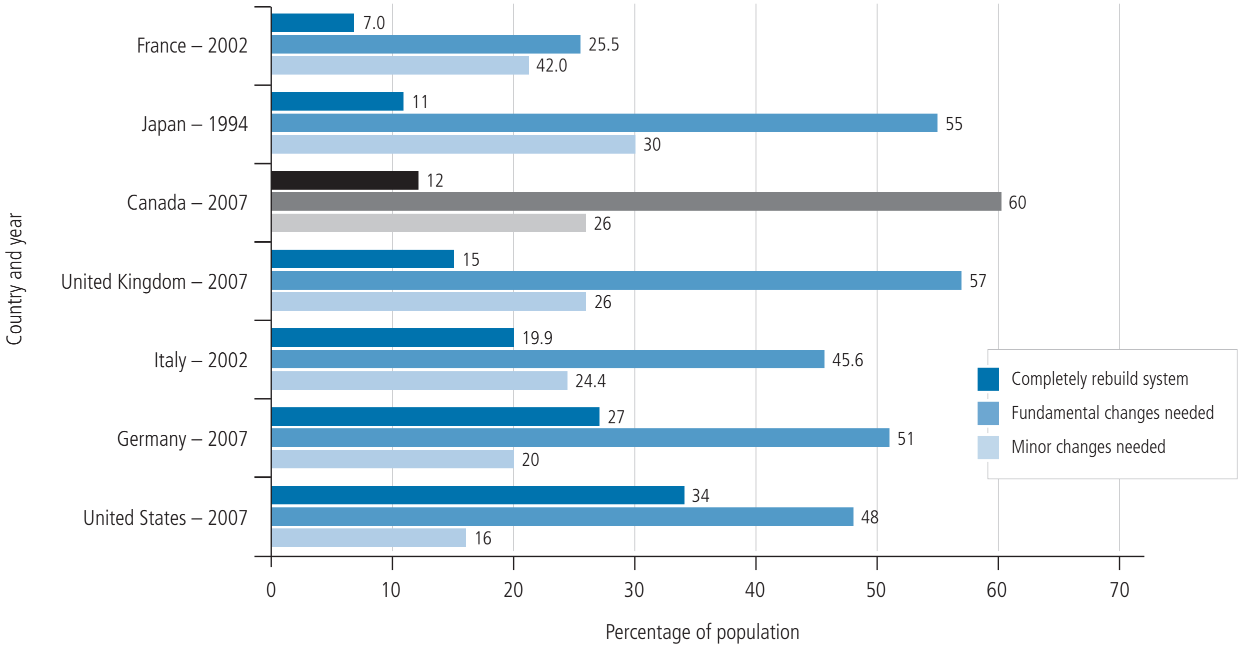
Notes: Based on household population aged 15 and older who reported receiving health care services in the 12 months prior to the survey.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 13 Health Care Satisfaction

Expressed need for reforms as a reflection of the public's satisfaction with their health care system, both sexes, selected countries and years



Source: Organisation for Economic Co-operation and Development. *Health Data, 2006* and *2008*.

Notes: Data for France and Italy are from 2002; data for Japan are from 1994; and data for Canada, Germany, the U.K. and the U.S. are from 2007.

Data are not comparable to Canadian trend data for the indicator *Self-reported patient satisfaction with overall health care services* as the survey uses a different scale to measure satisfaction.

For additional exclusions/limitations, see Annex 3.

Results: In 2007, 85.2% of Canadians (84.9% of males and 85.4% of females) reported being "very satisfied" or "somewhat satisfied" with the way overall health care services were provided. Satisfaction with overall health services remains high, with the rate essentially unchanged from those reported in previous periods.

Organisation for Economic Co-operation and Development (OECD) data are not directly comparable to the data presented in the graph, *Self-Reported Patient Satisfaction with Overall Health Care Services*, as the OECD used a different scale to measure satisfaction. In addition, because reference years for OECD data differ according to the country, differences between countries must also be interpreted with caution.

International data presented here are an indirect measure of the public's satisfaction with their respective health care systems. For example, a response of "minor changes needed" indicates the highest level of satisfaction

Considering G7 countries in 2007, the United States had a high percentage of respondents (34%) who felt that their health care system should be completely rebuilt, followed by Germany (27%), the United Kingdom (15%) and Canada (12%). An even greater number of respondents thought that fundamental changes were needed to reform the health care system: 60% in Canada, 57% in the United Kingdom, 51% in Germany and 48% in the United States.

10. Self-reported patient satisfaction with physician care

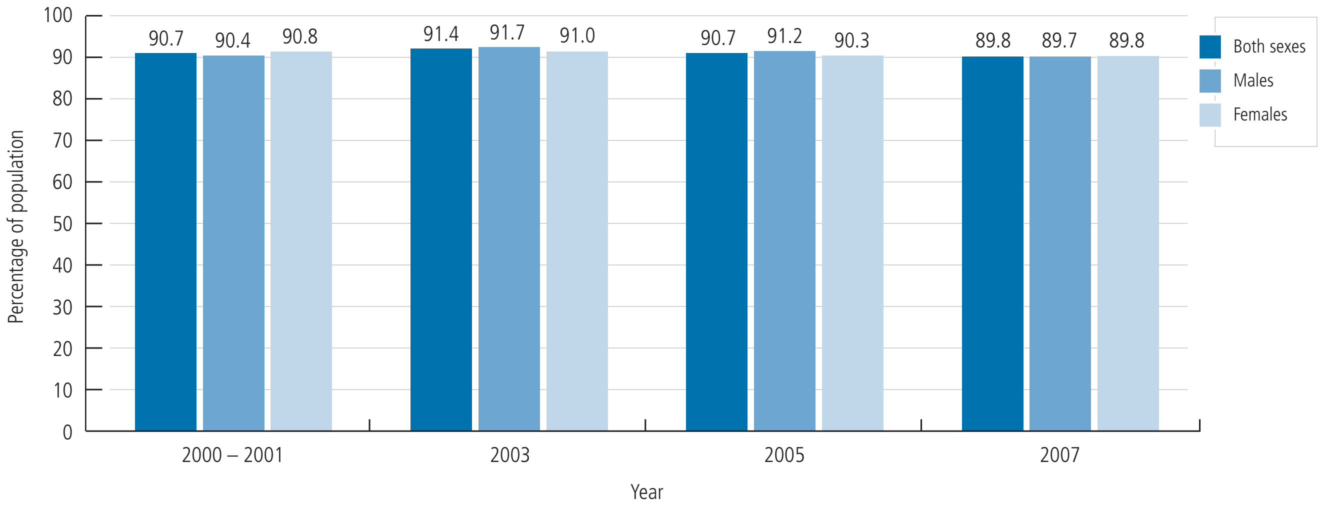
Relevance: The First Ministers agreed to develop indicators to help measure the quality of health services, including access to a health care provider. The indicator *Self-reported patient satisfaction with physician care* is an important measure of the quality of care.

Description: This indicator measures the percentage of the population aged 15 and older who received care from a physician (i.e., a family doctor or medical specialist) in the 12 months prior to being surveyed, and who reported being "very satisfied" or "somewhat satisfied" with the way physician care was provided.

Advisory to Readers: The actual meaning of the indicator is patient satisfaction with *the way* the service was provided and not with the service as a whole. Moreover, physician care excluded services received from a family physician or medical specialist located in a hospital.

Figure 14 **Self-Reported Patient Satisfaction with Physician Care**

Percentage of population who were "very satisfied" or "somewhat satisfied" with the way physician care was provided, by sex (age-standardized), Canada, 2000–2001, 2003, 2005 and 2007



Sources: Statistics Canada. Canadian Community Health Survey, 2000–2001, 2003, 2005 and 2007.

Notes: Based on household population aged 15 and older who reported receiving health care services from a family doctor, general practitioner or medical specialist in the 12 months prior to the survey.

This excludes services received during a hospital visit and refers to the most recent care received from a physician.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Results: In 2007, 89.8% of Canadians who received care from a physician reported they were "very satisfied" or "somewhat satisfied" with the way physician care was provided. Satisfaction remains consistently high, with similar rates of satisfaction from males and females in every period.

11. Self-reported patient satisfaction with hospital care

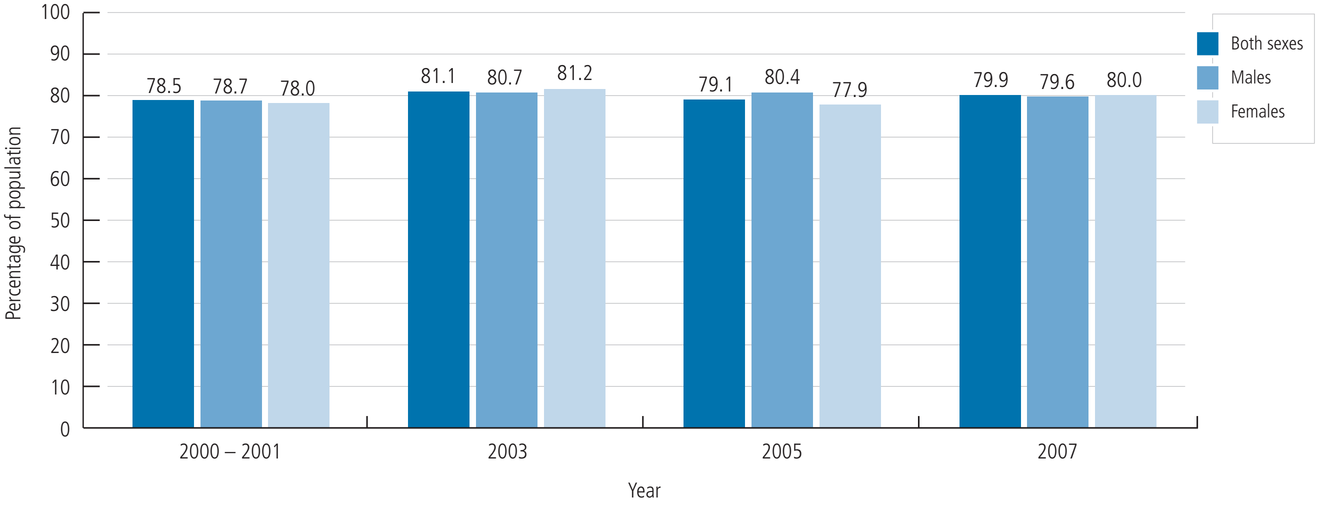
Relevance: The 2003 Health Accord included the commitment to help ensure that health care services are of high quality, effective, patient-centred and safe. The indicator *Self-reported patient satisfaction with hospital care* is another important measure of health care quality.

Description: This indicator measures the percentage of the population aged 15 and older who used hospital care in the 12 months prior to being surveyed, and who reported being "very satisfied" or "somewhat satisfied" with the way hospital services were provided.

Advisory to Readers: The actual meaning of the indicator is patient satisfaction with *the way* the service was provided and not with the service as a whole.

Figure 15 **Self-Reported Patient Satisfaction with Hospital Care**

Percentage of population who were "very satisfied" or "somewhat satisfied" with the way their most recent hospital care was provided, by sex (age-standardized), Canada, 2000–2001, 2003, 2005 and 2007



Sources: Statistics Canada. Canadian Community Health Survey, 2000–2001, 2003, 2005 and 2007.

Notes: Based on household population aged 15 and older who reported receiving hospital care in the 12 months prior to the survey.

Results should be treated with caution because a proportion of the difference may be explained by the mode used to collect data from the respondent (i.e., by phone or in person).

When there are multiple hospital visits, these data refer to the most recent care received from a hospital.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Results: In 2007, 79.9% of Canadians who used hospital care reported being "very satisfied" or "somewhat satisfied" with the way their most recent hospital care was provided. This figure is consistent with those from previous years, with similar rates of satisfaction from both males and females in every period.

12. Self-reported patient satisfaction with community-based care

Relevance: In the 2000 Communiqué and the 2003 Health Accord, First Ministers agreed to develop indicators to help measure the quality of community-based health care. The indicator *Self-reported patient satisfaction with community-based care* is an important measure of this type of care.

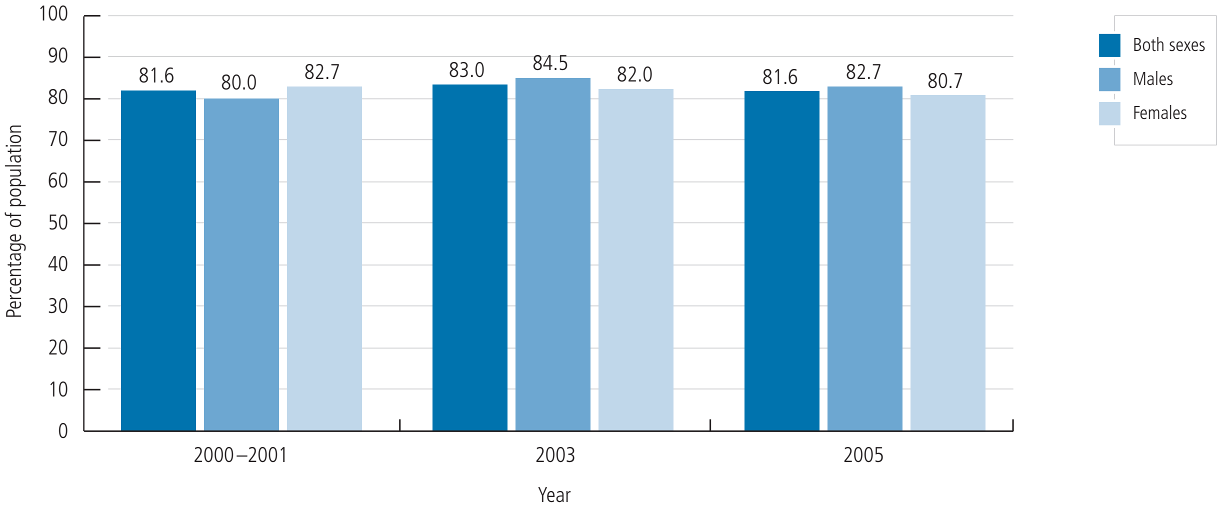
Description: This indicator measures the percentage of the population aged 15 and older who rated themselves as either "very satisfied" or "somewhat satisfied" with the way community-based care was provided in the 12 months prior to being surveyed.

Advisory to Readers: "Community-based care" included any health care services received outside of a hospital or doctor's office (e.g., home nursing care, home-based counselling or therapy, personal care, community walk-in clinics with allied health service providers).

The actual meaning of the indicator is patient satisfaction with *the way* the service was provided and not with the service as a whole. Furthermore, new data for this indicator were not available; therefore, the same information reported in *Healthy Canadians 2006* is reported here.

Figure 16 **Self-Reported Patient Satisfaction with Community-Based Care**

Percentage of population who were "very satisfied" or "somewhat satisfied" with the way community-based care was provided, by sex (age-standardized), Canada, 2000–2001, 2003 and 2005



Sources: Statistics Canada. Canadian Community Health Survey, 2000–2001, 2003 and 2005.

Notes: Based on household population aged 15 and older who reported receiving community-based health care in the 12 months prior to the survey, excluding care received through a hospital or doctor's office.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Results: In 2005, 81.6% of Canadians who used community-based health care reported being "very satisfied" or "somewhat satisfied" with the way community-based care was provided. This number is fairly constant with the numbers reported in previous years.

13. Self-reported patient satisfaction with telephone health line or tele-health services

Relevance: In the 2000 Communiqué and the 2003 Health Accord, First Ministers agreed to develop indicators to help measure the quality of health services, including access to a health care provider 24 hours a day, seven days a week. The indicator *Self-reported patient satisfaction with telephone health line or tele-health services* is an important measure of the quality of 24-hour access to health care.

Description: This indicator measures the percentage of the population aged 15 and older who used a telephone health line or tele-health service in the 12 months prior to being surveyed, and who reported being "very satisfied" or "somewhat satisfied" with the way the services were provided.

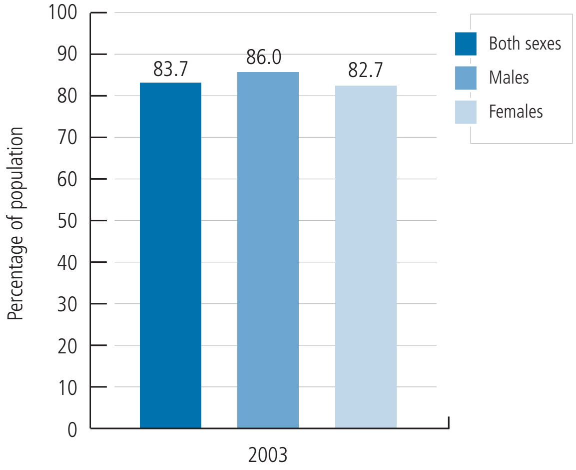
Advisory to Readers: The actual meaning of the indicator is patient satisfaction with *the way* the service was provided and not with the service as a whole. Furthermore, new data for this indicator were not available; therefore, the same information from *Healthy Canadians 2006* is reported here.

Telephone health line or tele-health services…

… are phone-based services which offer health information provided by a nurse or other allied health service provider. As there must be live interaction for a service to be included in this indicator, automated services are excluded from this definition.

Figure 17 Self-Reported Patient Satisfaction with Telephone Health Line or Tele-Health Services

Percentage of population who were "very satisfied" or "somewhat satisfied" with the way telephone health line or tele-health service was provided, by sex (age-standardized), Canada, 2003



Source: Statistics Canada. Canadian Community Health Survey, 2003.

Notes: Based on household population aged 15 and older who reported using telephone health line or tele-health services in the 12 months prior to the survey.

There are no telephone health line or tele-health services in Nunavut, Yukon and the Northwest Territories.

Because only live interactions were counted, any respondent who accessed information through taped messages was excluded; however, respondents were not necessarily informed of this exclusion when responding to the question. This may be an issue for some jurisdictions that have taped public messages (e.g., where to get a flu shot).

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Results: In 2003, 83.7% of Canadians who used a telephone health line or tele-health service reported being "very satisfied" or "somewhat satisfied" with the way the service was provided.

14. Hospitalization rate for ambulatory care sensitive conditions

Relevance: When Canadians need health care, they most often turn to primary health care services, the first level of care and the initial point of contact that a patient has with the health system. In the 2000 Communiqué, First Ministers agreed to work together and in concert with health professionals to improve primary health care and its linkages with other components of the health care system. This includes hospital settings. The indicator *Hospitalization rate for ambulatory care sensitive conditions* helps in our understanding of how ambulatory care can reduce the number of hospitalizations for what are often preventable or treatable chronic conditions.

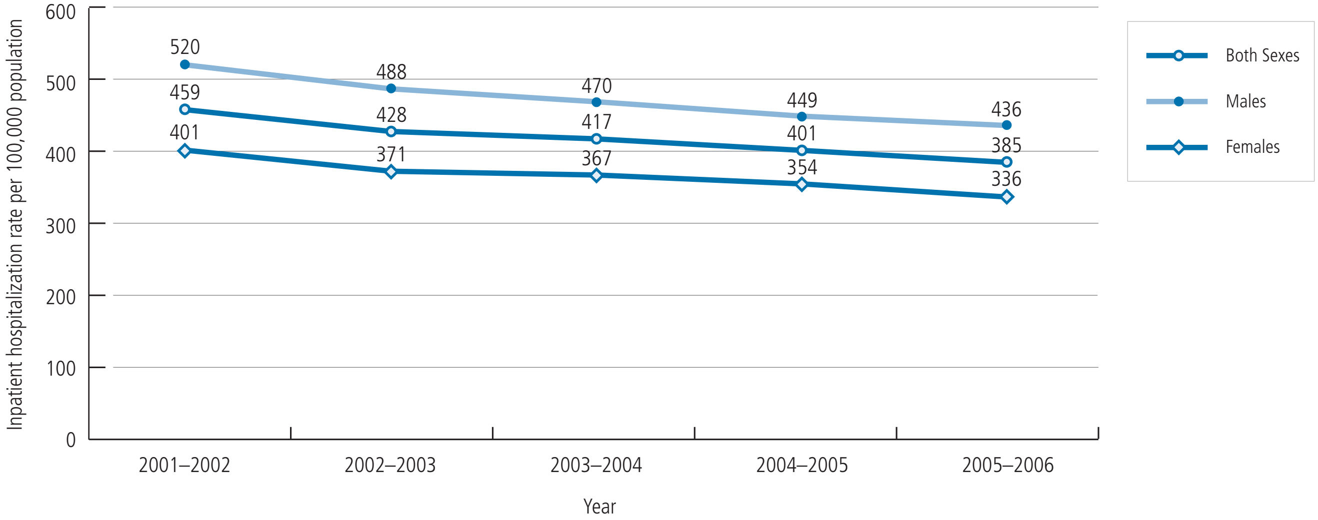
Description: This indicator measures the age-standardized acute care hospitalization rate for conditions where appropriate ambulatory care prevents or reduces the need for admission to hospital, per 100,000 population under age 75 years. Conditions include angina, asthma, congestive heart failure, chronic obstructive pulmonary disease, diabetes, epilepsy and hypertension.

Advisory to Readers: Health care professionals think that managing these chronic conditions before a patient is hospitalized improves the patient's health, contributes to better overall community health status, and often saves money because community-based care usually costs less than hospitalizations.

The definition of this indicator has been revised since *Healthy Canadians 2006*, and the hospitalization rate has been recalculated from 2001–2002 onwards. As a result, the data will not match those reported in *Healthy Canadians 2006*.

Figure 18 Ambulatory Care Sensitive Conditions

Hospitalization rate for ambulatory care sensitive conditions, per 100,000 population under 75 years old, by sex (age-standardized), Canada, 2001–2002 to 2005–2006



Source: Canadian Institute for Health Information. Hospital Morbidity Database.

Notes: Starting with 2006, the indicator definition was revised and data were recalculated for the years beginning 2001–2002 onwards. Comparison with rates from previous editions of *Healthy Canadians* should not be made.

Excludes patients not treated as inpatients in acute care hospitals, patients 75 years of age and older, and patients who died before discharge.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Results: Hospitalization rates for chronic conditions that can be cared for in the community have declined for males, females, and both sexes combined, to an overall average of 385 admissions per 100,000 population in 2005–2006, from 459 admissions per 100,000 population in 2001–2002. The rate for males decreased from 449 hospitalizations per 100,000 males in 2004–2005 to 436 per 100,000 males in 2005–2006. The rate for females decreased from 354 hospitalizations per 100,000 females in 2004–2005 to 336 per 100,000 females in 2005–2006. The rate for both sexes decreased from 401 hospitalizations per 100,000 population in 2004–2005 to 385 per 100,000 population in 2005–2006. Canadian males continue to have higher rates of hospitalizations than females (436 admissions versus 336 admissions per 100,000 population in 2005–2006). The difference in rates between males and females is smaller than it was in 2001–2002, although it has increased since 2004–2005.

15. Readmission rate for acute myocardial infarction

Relevance: The 2003 Health Accord highlighted the need to develop indicators on health outcomes, such as readmissions for acute myocardial infarction (AMI). This indicator responds to this commitment.

Definition: This indicator measures the risk-adjusted rate of unplanned readmission following discharge for AMI.

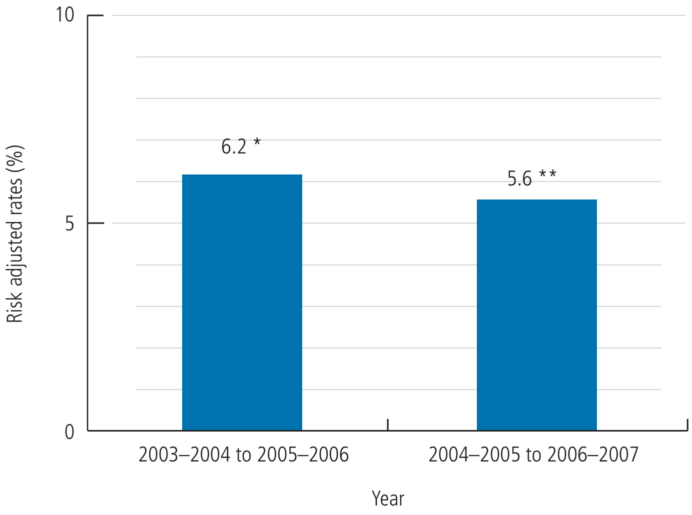
Advisory to Readers: A case is counted as a readmission if it is for a relevant diagnosis and occurs within 28 days after the index (or first) episode of care. An episode of care refers to all contiguous acute care hospitalizations and same-day surgery visits.

Examining hospital readmission rates for selected conditions is one way of measuring the quality of care. Factors that can influence readmission include: medication that is prescribed when an individual is initially discharged from the hospital; patient compliance with direction; the quality of follow-up care in the community; and the quality and completeness of care during initial hospitalization. Some of these factors are directly related to care at the hospital while others relate to the availability of appropriate services in the community. Higher than normal readmission rates may also be due to: practices in hospitals (e.g., early discharge criteria); the availability of appropriate community services; coordination between hospital and community providers; and patient education and instruction.

As of the period from 2003–2004 to 2005–2006, case selection criteria were revised to account for the fact that an increasing number of AMI patients were undergoing revascularization procedures (percutaneous coronary intervention or coronary artery bypass) at their index admission. In the case of revascularization procedures, AMI diagnosis may not be coded as the most responsible for the condition; these cases would not have been included in the past. In addition, patients discharged alive with a length of stay less than three days are no longer excluded. While changes were expected to improve comparability between jurisdictions, comparison of 2004 rates with those of previous years should be done with caution.

Figure 19 Re–admission Rate for Acute Myocardial Infarction (AMI)

Re–admission rate for acute myocardial infarction, both sexes, Canada,*,** 2003–2004 to 2006–2007



Source: Canadian Institute for Health Information. Discharge Abstract Database, National Ambulatory Care Reporting System.

Notes: * Due to differences in collection, Québec and Manitoba data are not included in the 2003–2004 to 2005–2006 average.

** Due to differences in collection, Québec data are not included in the 2004–2005 to 2006–2007 average.

For additional exclusions/limitations, see Annex 3.

Results: Only two data points are currently available for this indicator (each point is an average covering a three-year period). The AMI readmission rate for 2004–2005 to 2006–2007 was 5.6%.

16. Mortality rate for acute myocardial infarction
17. Mortality rate for stroke

Relevance: The 2003 Health Accord stressed the importance of developing indicators to facilitate the measurement of the quality of health care services across the country, including health outcomes such as mortality rates. The indicators *Mortality rate for acute myocardial infarction* and *Mortality rate for stroke,* along with other indicators of quality and health status, provide a good picture of the quality of our health system.

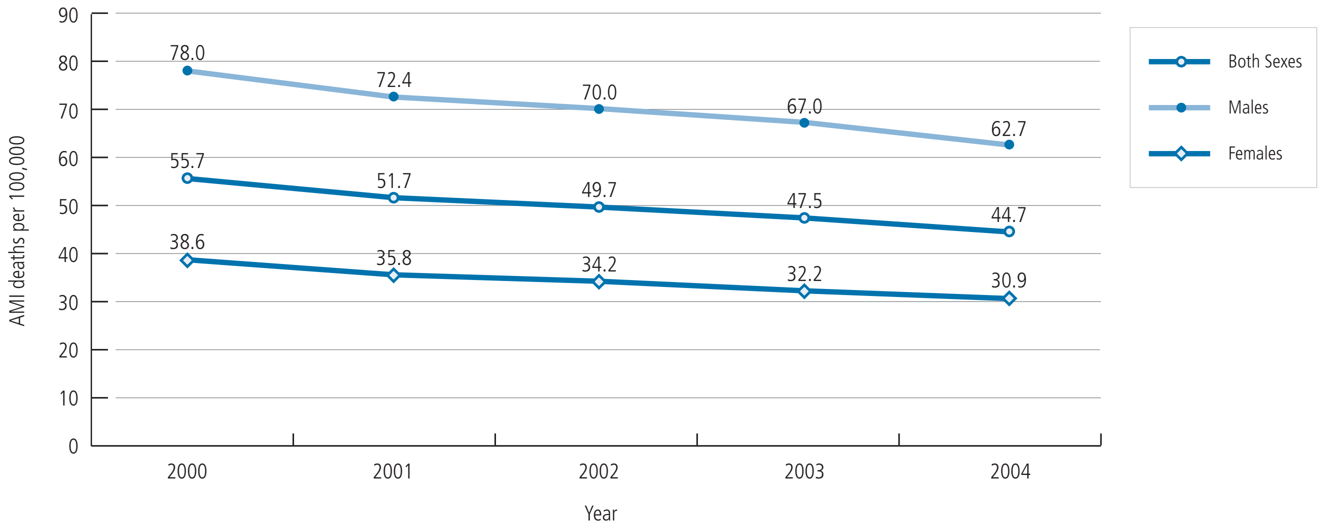
Description: These two indicators measure the number of deaths of individuals where the underlying cause of death is acute myocardial infarction (AMI), or stroke, per 100,000 population that would be observed in the population if it had the same age composition as the reference or "standard" population.

Advisory to Readers: Cardiovascular disease is the major cause of death in Canada, accounting for 32% of all deaths in Canada in 2004. These diseases exact high personal, community and health care costs.

In Canada, as in many countries, mortality rates for AMI and stroke have been on the decline for decades. It is not known how much of this decline is due to a change in the underlying incidence of these diseases, which would reflect changes in lifestyle and risk factors, including improved control of related health conditions such as dyslipidemia, hypertension and diabetes, or to an improvement in survival brought on by improved treatment of AMI and stroke. The use of age-standardized mortality rates improves comparability over time, by correcting for the increasing age of the population, but may underestimate the actual rates and the burden on the health care system. For international comparison, stroke mortality (I60–I66 in ICD-10) was unavailable. Instead, the mortality rate for cerebrovascular disease (I60–I69 in ICD-10, including all stroke) is presented, as over 80% of cerebrovascular disease mortality is from stroke.

Figure 20 **Mortality Rate for Acute Myocardial Infarction (AMI)**

Mortality rate for acute myocardial infarction, per 100,000 population, by sex (age-standardized), Canada, 2000–2004



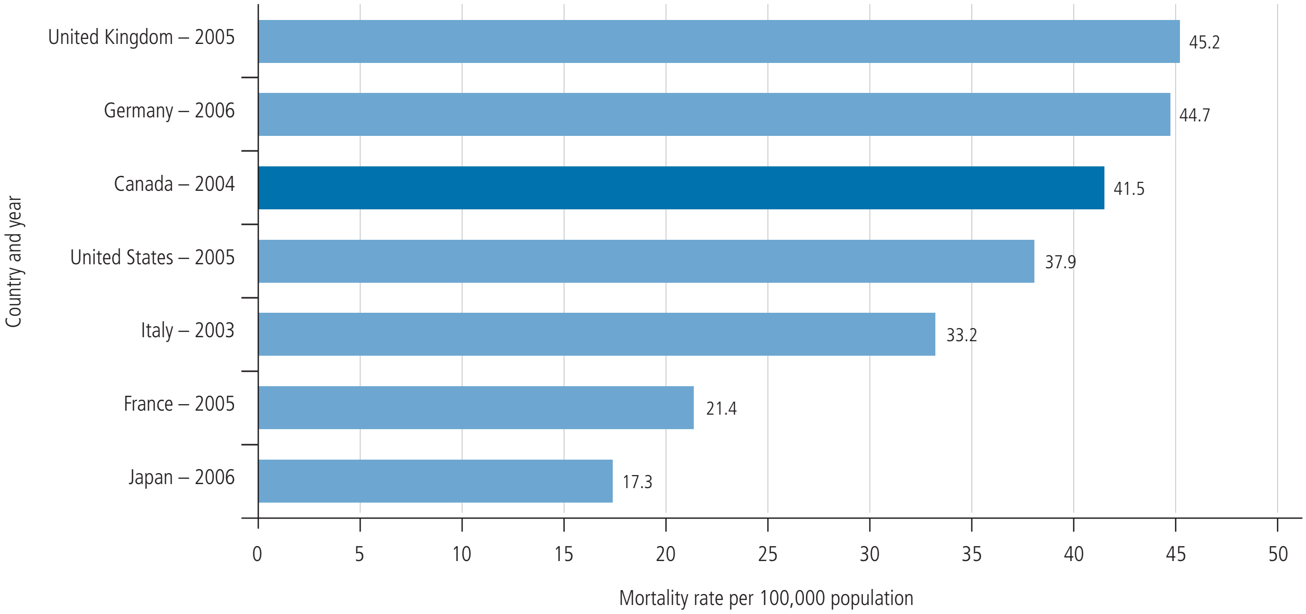
Sources: Statistics Canada. Vital Statistics files, Death Database.
Institut de la Statistique du Québec.

Notes: Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 21 Mortality Rate for Acute Myocardial Infarction (AMI)

Mortality rate for acute myocardial infarction, per 100,000 population, both sexes (age-standardized), selected countries and years



Source: Organisation for Economic Co-operation and Development. *Health Data, 2008*.

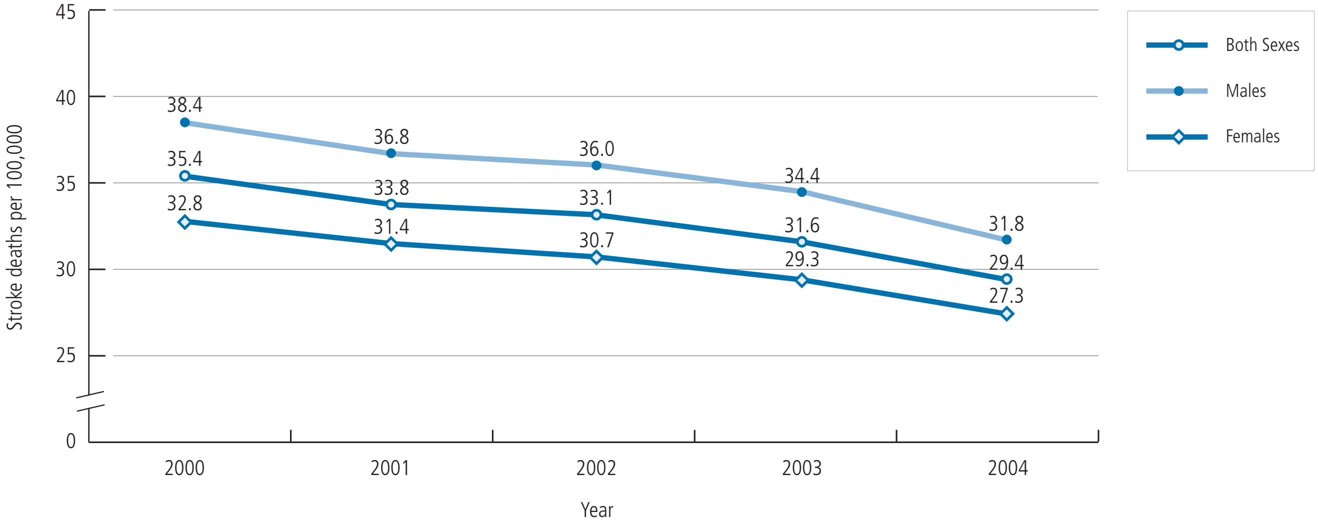
Notes: Data for Germany and Japan are from 2006; data for France, the U.K. and the U.S. are from 2005; datum for Canada is from 2004; and datum for Italy is from 2003.

Data are not comparable to Canadian trend data for the indicator *Mortality rate for acute myocardial infarction (AMI)* because OECD data are age-standardized to the 1980 total OECD population rather than the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 22 Mortality Rate for Stroke

Mortality rate for stroke, per 100,000 population, by sex (age-standardized), Canada, 2000–2004



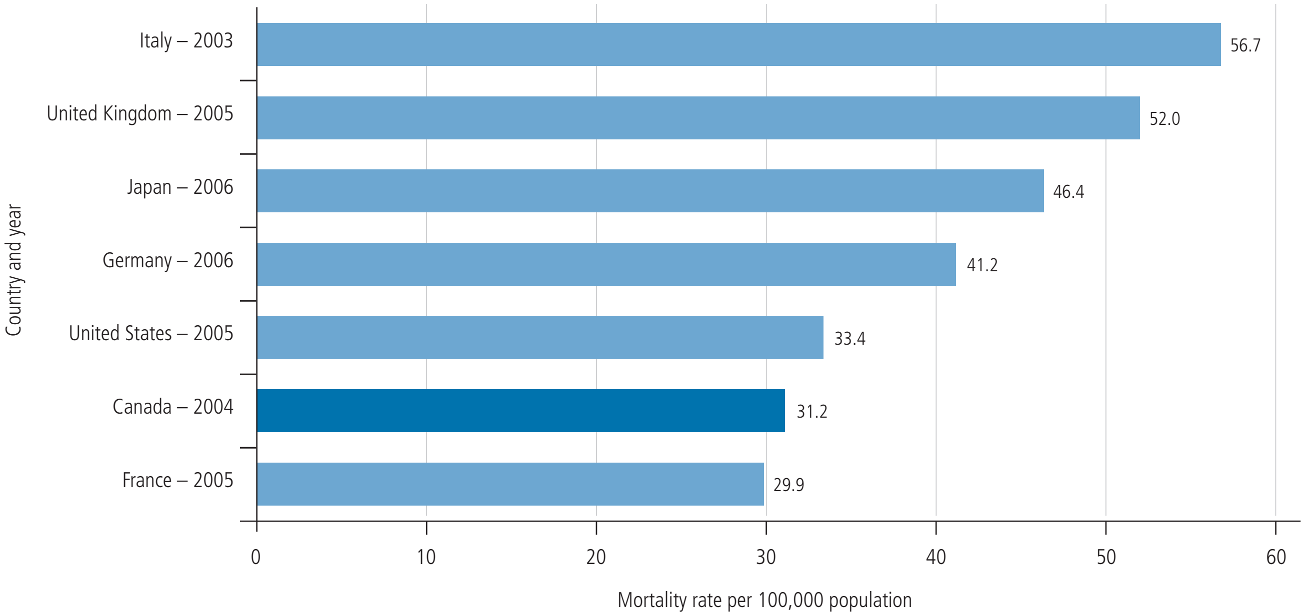
Sources: Statistics Canada. Vital Statistics files, Death Database.
Institut de la Statistique du Québec.

Notes: Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 23 Mortality Rate for Cerebrovascular Diseases

Mortality rate for cerebrovascular diseases, per 100,000 population, both sexes (age-standardized), selected countries and years



Source:	Organisation for Economic Co-operation and Development. *Health Data, 2008*.
Notes:	Data for Germany and Japan are from 2006; data for France, the U.K. and the U.S. are from 2005; datum for Canada is from 2004; and datum for Italy is from 2003. Data are not comparable to Canadian trend data for the indicator *Mortality rate for stroke* because OECD data are age-standardized to the 1980 total OECD population rather than the 1991 Canadian population. In addition, the OECD data examines mortality due to all cerebrovascular disease (ICD-10 Codes I60–I69), while Canadian trend data refer only to stroke (ICD-10 Codes I60–I66). For additional exclusions/limitations, see Annex 3.

Results: In 2004, the average AMI mortality rate in Canada was 44.7 deaths per 100,000 population, with 62.7 deaths per 100,000 males and 30.9 deaths per 100,000 females. AMI mortality rates have decreased every year, representing a trend toward lower age-standardized AMI mortality.

Also in 2004, the average stroke mortality rate in Canada was 29.4 deaths per 100,000 population, with 31.8 deaths per 100,000 males and 27.3 deaths per 100,000 females. Continually decreasing stroke mortality rates represent a trend toward lower age-standardized stroke mortality.

Organisation for Economic Co-operation and Development (OECD) data are age-standardized according to the 1980 total OECD population, while Canadian data (presented in the graph, *Mortality Rate for Stroke*) are age-standardized to the 1991 Canadian population. Reference years for OECD data also differ according to the country. Therefore, data are not directly comparable between OECD and Canadian graphs.

Considering this, Canada had the third highest rate of AMI mortality among G7 countries (41.5 deaths per 100,000 population), after Germany and the U.K. In addition, Canada had the second lowest cerebrovascular disease mortality rate (31.2 deaths per 100,000 population), with only France having a lower rate.

THEME—HEALTH STATUS AND WELLNESS

GENERAL POPULATION

The Accords recognized the importance of renewing and strengthening the health care system to improve the health of Canadians. They also recognized the importance of developing strategies and policies that focus on the determinants of health, enhance disease prevention, improve public health[25] and provide support for early childhood development. Health promotion and wellness were key components of these agreements. These are important considerations, as public health and health promotion interventions have a significant impact on the health and life expectancy of Canadians.

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[25] For more information on public health in Canada, see the document *Report on the State of Public Health in Canada 2008*, which is available at: http://www.phac-aspc.gc.ca/publicat/2008/cphorsphc-respcacsp/index-eng.php .

18. Perceived health

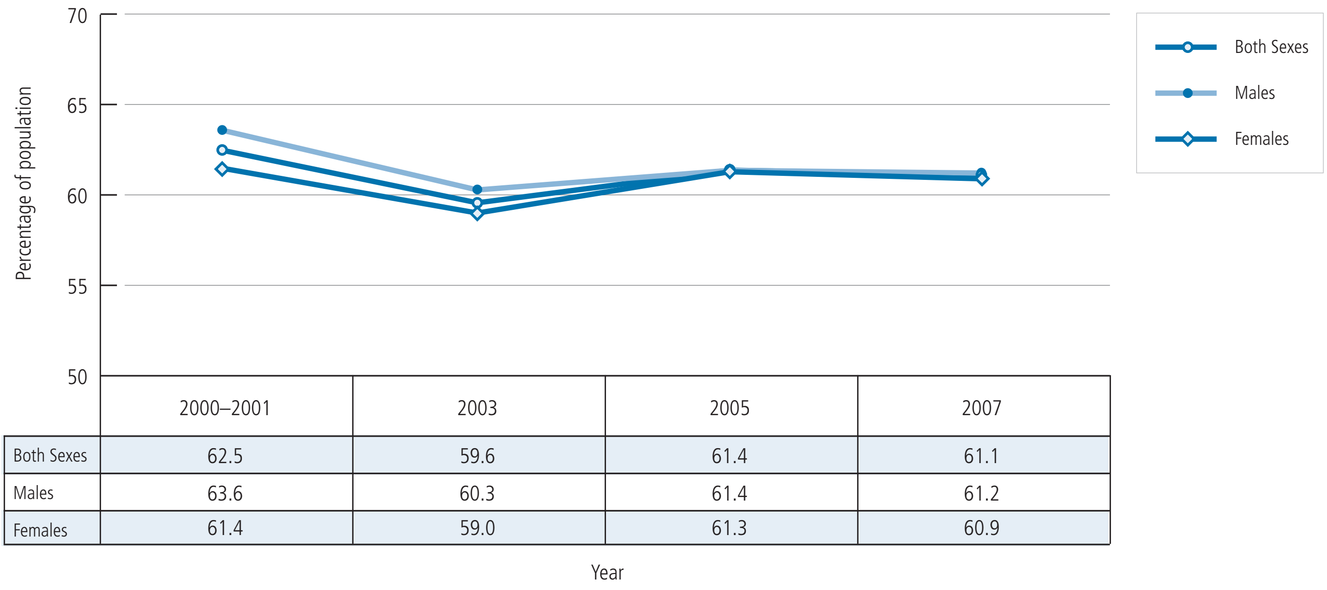
Relevance: The indicator *Perceived health* is known to correlate highly with other health status measures;[26] thus, it can also be considered as a global measure of health status and wellness.

Description: This indicator measures the percentage of the population aged 12 and older who rated their overall health as either "excellent" or "very good."

Advisory to Readers: Studies indicate that when individuals rate their health, they tap into information that can predict the incidence of chronic diseases, loss of ability to function and, ultimately, survival. Perceived or self-reported health is considered predictive of mortality even when more objective measures such as clinical evaluations are taken into account. However, inconsistencies may occur between self-reported health data from population surveys and best estimates from epidemiological studies (such as under-reporting of undiagnosed conditions, over-reporting of some conditions or lack of information on condition severity).

Figure 24 Perceived Health

Percentage of population reporting "excellent" or "very good" health, by sex (age-standardized), Canada, 2000–2001, 2003, 2005 and 2007



	2000–2001	2003	2005	2007
Both Sexes	62.5	59.6	61.4	61.1
Males	63.6	60.3	61.4	61.2
Females	61.4	59.0	61.3	60.9

Sources: Statistics Canada. Canadian Community Health Survey, 2000–2001, 2003, 2005 and 2007.

Notes: Based on household population aged 12 and older who report that their health is "excellent" or "very good."

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

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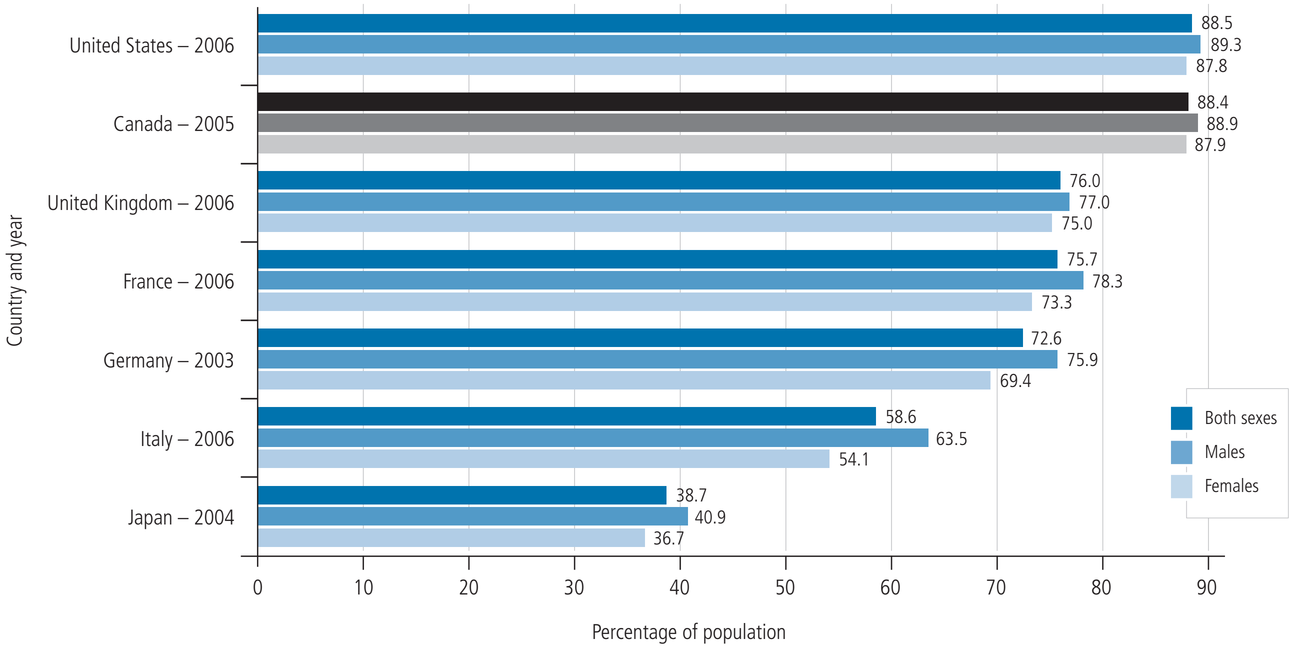
[26] Singh-Manoux A, et al. What does self-rated health measure? Results from the British Whitehall II and French Gazel cohort studies. *Journal of Epidemiology and Community Health*. 2006;60:364–72.

Figure 25 Perceived Health Status

Percentage of population who report being in "good" or better health, by sex, selected countries and years



Source: Organisation for Economic Co-operation and Development. *Health Data, 2008*.

Notes: Data for France, Italy, the U.K. and the U.S. are from 2006; data for Canada are from 2005; data for Japan are from 2004; and data for Germany are from 2003.

Data are not comparable to Canadian trend data for the indicator *Perceived health* because OECD data are not age-standardized, while Canadian data are age-standardized to the 1991 Canadian population. In addition, this indicator reports on "good" or better health, which is not the same as the grouping, "excellent" or "very good," that is reported for Canada, and reports on Canadians 15 years and older rather than 12 and older.

For additional exclusions/limitations, see Annex 3.

Results: In 2007, 61.1% of Canadians aged 12 years and older reported their health as "excellent" or "very good," a decrease from 62.5% in 2000–2001. Decreases for both sexes and for males have occurred since 2000–2001. In 2000–2001, a larger percentage of males than females rated their health as "excellent" or "very good." The difference between males and females has decreased from what was observed in 2000–2001.

Organisation for Economic Co-operation and Development (OECD) data are not age-standardized while Canadian data (presented in the graph, *Perceived Health*) are age-standardized to the 1991 Canadian population. In addition, the OECD indicator measures the percentage of the population who report being in "good" or better health, while the Canadian indicator measures the percentage of the population who rated their overall health as either "excellent" or "very good." OECD data (including the information on Canada) also include individuals who are 15 years and older, whereas data in the Canadian graph include individuals who are 12 years and older. Thus, data are not directly comparable between OECD and Canadian graphs.

Of the G7 countries, Canada had the second highest scores for perceived health, with 88.4% of Canadians rating their health as "good" or better.

19. Life expectancy

Relevance: The indicator *Life expectancy* correlates with other health status measures such as perceived health and can be considered an important measure of health status, reflecting the relative influence of the underlying determinants of health.

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

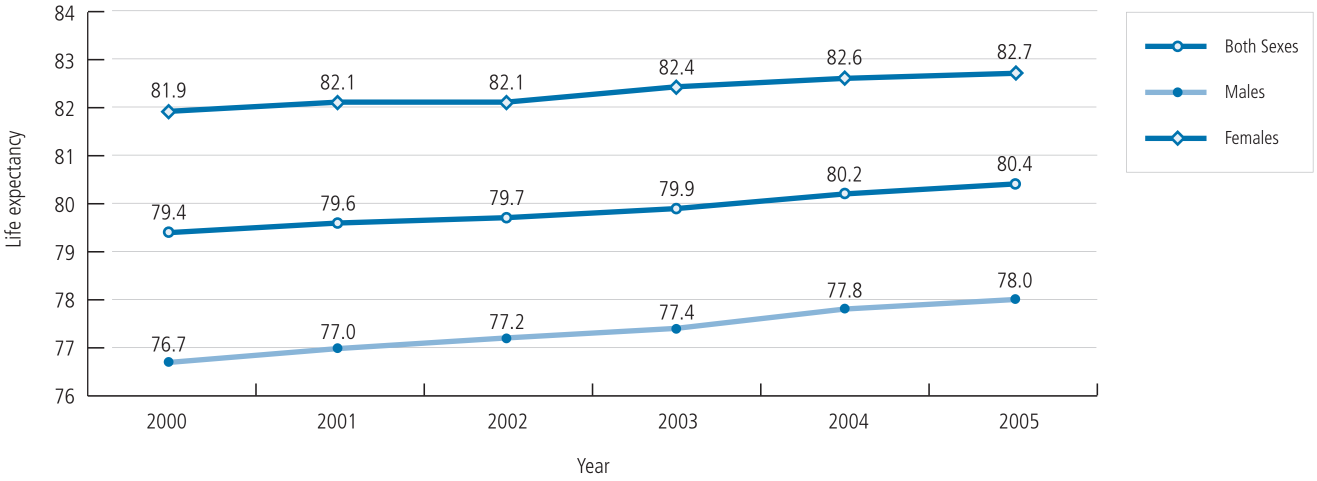
Advisory to Readers: The indicator *Life expectancy* concerns quantity rather than quality of life. Increases in life expectancy are sometimes associated with increases in the presence of serious disease. Thus, life expectancy on its own does not tell us whether or not an individual's life is lived in good health.

Life expectancy does not refer to the number of years a particular newborn (or a person who is currently 65 years old) can actually expect to live. This is because mortality rates are averages for the entire population. Historically, mortality rates in Canada have been falling, and the mortality rates individuals are likely to face as they age may be lower. In addition, numerous factors or determinants of health (income and social status, social supports, education, employment and working conditions, health services, biology and genetic endowment, child development, physical and social environment, and personal health practices and coping skills) can influence one's longevity and quality of life.[27] For example, an individual who is a long-time smoker may have a life expectancy that is different from someone who does not smoke.

Analysis is limited to data from 2000 to 2004 because confidence intervals were not available for 2005. This indicator presents data according to sex, as life expectancy differs between women and men.

Figure 26 Life Expectancy

Life expectancy at birth, by sex, Canada, 2000–2005



Sources: Statistics Canada. Vital Statistics files, Birth and Death Databases and Demography Division (population estimates). Institut de la Statistique du Québec.

Notes: As confidence intervals were not available for 2005, analysis is limited to data from 2000 to 2004. Non-residents of Canada are excluded from the death and population estimates used for the life tables. For additional exclusions/limitations, see Annex 3.

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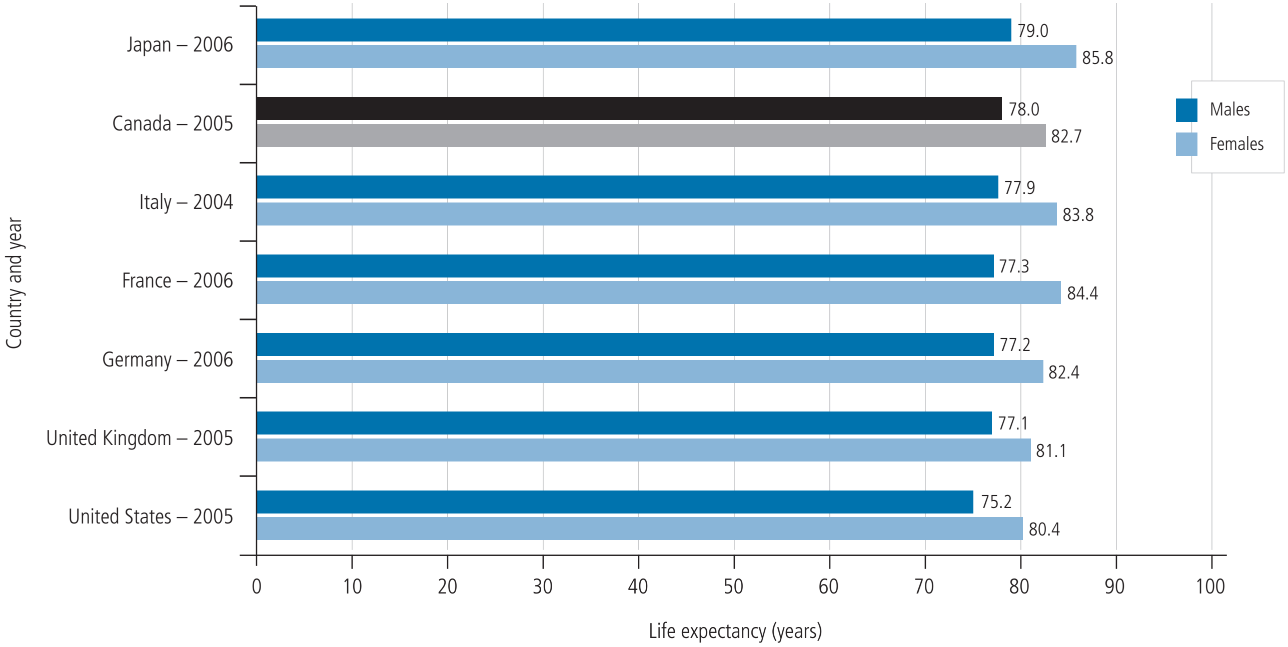
[27] Details on the determinants of health are available at: http://www.phac-aspc.gc.ca/ph-sp/determinants/index-eng.php.

Figure 27 Life Expectancy at Birth

Life expectancy at birth in years, by sex, selected countries and years



Source: Organisation for Economic Co-operation and Development. *Health Data, 2008*.

Notes: Data for France, Germany and Japan are from 2006; data for Canada, the U.S. and the U.K. are from 2005; and data for Italy are from 2004.

For additional exclusions/limitations, see Annex 3.

Results: Since 2000, life expectancy continues to increase for males, females and both sexes combined, with males and both sexes combined showing increases from 2003 to 2004. In 2005, life expectancy for Canadians averaged 80.4 years, with males and females averaging 78.0 and 82.7 years, respectively. In 2004, males continued to have a lower life expectancy than females, as they did in 2003 and 2000. However, the difference between males and females has gotten smaller, from a difference of 5.2 years in 2000 to 4.8 years in 2004.

Reference years for Organisation for Economic Co-operation and Development (OECD) data vary according to the country. Caution is therefore required in the interpretation of OECD data.

Of the G7 countries, Canada had the third highest average life expectancy (second highest for males at 78.0 years and fourth highest for females at 82.7 years).

20. Health adjusted life expectancy

Relevance: The indicator *Health adjusted life expectancy* is another measure of health status; combined with life expectancy and other health status measures, it provides a good portrait of health status and well-being.

Description: This indicator includes two sub-indicators:

- **a) Health adjusted life expectancy (HALE) for overall population**
- **b) Health adjusted life expectancy (HALE) by income**

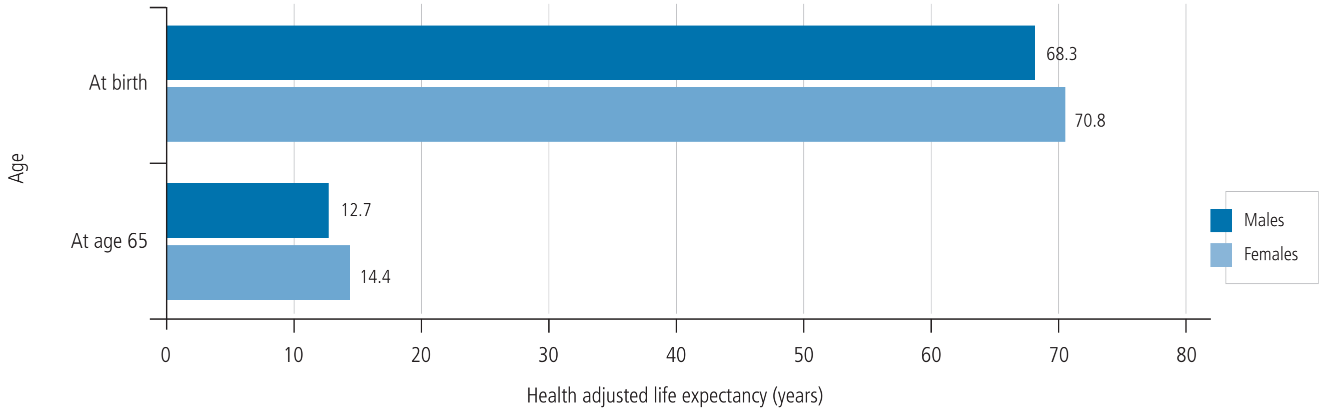
Advisory to Readers: HALE measures the number of years *in full health* that an individual can expect to live given current morbidity and mortality conditions. It takes into account life expectancy, which is the number of years a person would be expected to live, starting from birth (for life expectancy at birth) or at age 65 (for life expectancy at age 65), if the age- and sex-specific mortality rates for a given observation period (such as a calendar year) were held constant over the estimated life span. However, HALE is a more comprehensive indicator than life expectancy because it introduces the concept of *quality* of life. Further to this, HALE uses the Health Utility Index (HUI) to weigh years lived in good health higher than years lived in poor health.

HALE is a relatively new indicator embodying a number of assumptions which are important for its interpretation. One such assumption is using an indicator of the perceived or self-reported health status of a sample of individuals, each at a moment in time, to represent the double average, first, of that individual's health status over a period of time (such as a year), and then over all of the individuals in the population (e.g., of a province). A second and related assumption is that there is a reciprocity between health and time so that, for example, five years lived at a health state of 0.5 (quite poor health) is the same thing as 2.5 years lived in full health.

New data for this indicator were not available, so the same information from *Healthy Canadians 2006* is reported here.

Figure 28 **Health Adjusted Life Expectancy**

By sex, at birth and age 65, Canada, 2001

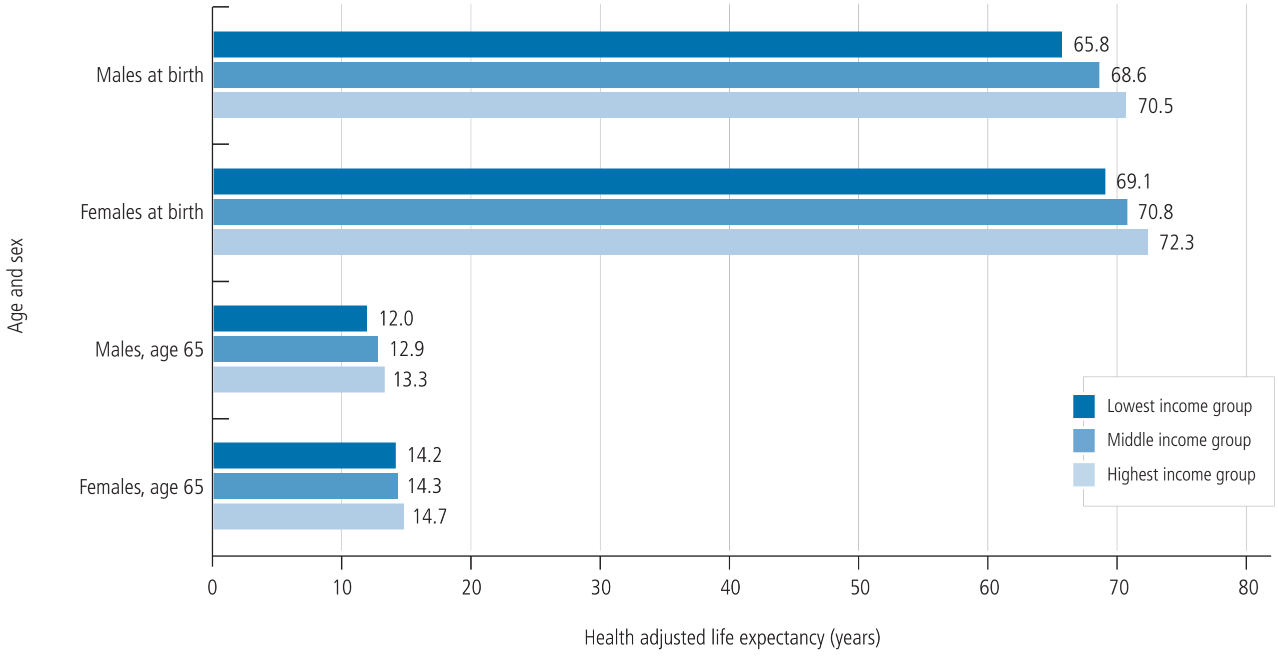


Sources: Statistics Canada. Canadian Vital Statistics, Death Database; National Population Health Survey, 1996–1997; Canadian Community Health Survey, 2000–2001; 2001 Census.

Note: For additional exclusions/limitations, see Annex 3.

Figure 29 Health Adjusted Life Expectancy

By sex and income level, at birth and age 65, Canada, 2001



Sources: Statistics Canada. Canadian Vital Statistics, Death Database; National Population Health Survey, 1996–1997; Canadian Community Health Survey, 2000–2001; 2001 Census.

Note: For additional exclusions/limitations, see Annex 3.

Results: In 2001, women had a higher HALE than men, both at birth and at age 65. This difference is more apparent at birth, with women living to 70.8 years in full health and men living to 68.3 years in full health.

Sex and income are important for determining HALE. Canadians in higher income groups generally live longer, healthier lives than those in lower income groups. Men in the highest income group at birth have a HALE of 70.5 years, while women in the highest income group at birth have a HALE of 72.3. Comparisons of HALE across income groups show that, at birth, women in the highest income group have a HALE that is 3.2 years higher than women in the lowest group. Similarly, men in the highest group have a HALE 4.7 years higher than men in the lowest income group.

21. Infant mortality

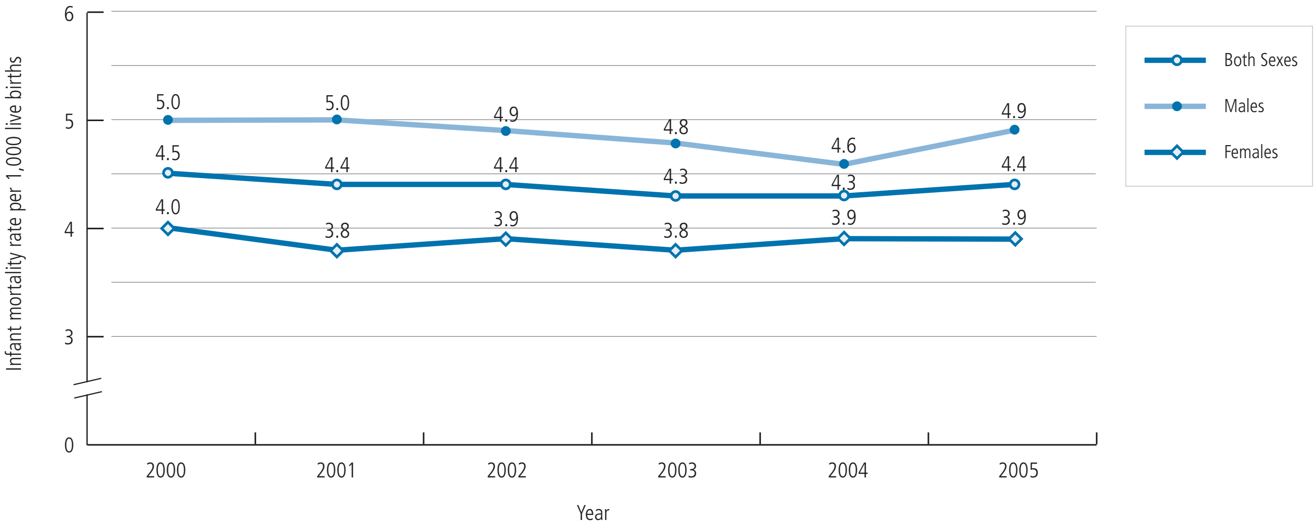
Relevance: Although the 2000 Communiqué specifically mentioned infant mortality as a health status indicator, all Accords stressed the importance of developing strategies and policies that focus on the determinants of health, enhance disease prevention, improve public health and provide support for early childhood development. The indicator *Infant mortality* is an important measure of infant health, and it also reflects the overall health of a given society.

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

Advisory to Readers: The infant mortality rate reflects the level of mortality, the health status and health care of a population, the effectiveness of preventive care and the attention paid to maternal and child health, as well as broader social factors such as maternal education, smoking and deprivation. Although infant mortality in Canada has decreased dramatically over the last century, disparities in risk of infant death across subpopulations remain. Meanwhile, immaturity and congenital anomalies are the leading causes of infant death in Canada. In industrialized countries, although infant mortality has many causes, 60% – 80% of infant deaths among infants with no congenital anomalies are associated with preterm birth. Moreover, the rate of preterm birth has been increasing in Canada, and this may be due to increases in obstetric interventions (for example, medically indicated labour induction and/or caesarean delivery), multiple births, older maternal age, and increases in the use of ultrasound-based estimates of gestational age (*Canadian Perinatal Health Report, 2008 Edition*).[28]

Figure 30 Infant Mortality

Infant mortality, birth weights 500 g or more, by sex, Canada, 2000–2005



Sources: Statistics Canada. Vital Statistics files, Birth and Death Databases.
Institut de la Statistique du Québec.

Notes: Infants born outside the province/territory of residence of their mothers or infants who die outside the province/territory of residence of their mothers are included in the rates for the mother’s province/territory of residence.

For additional exclusions/limitations, see Annex 3.

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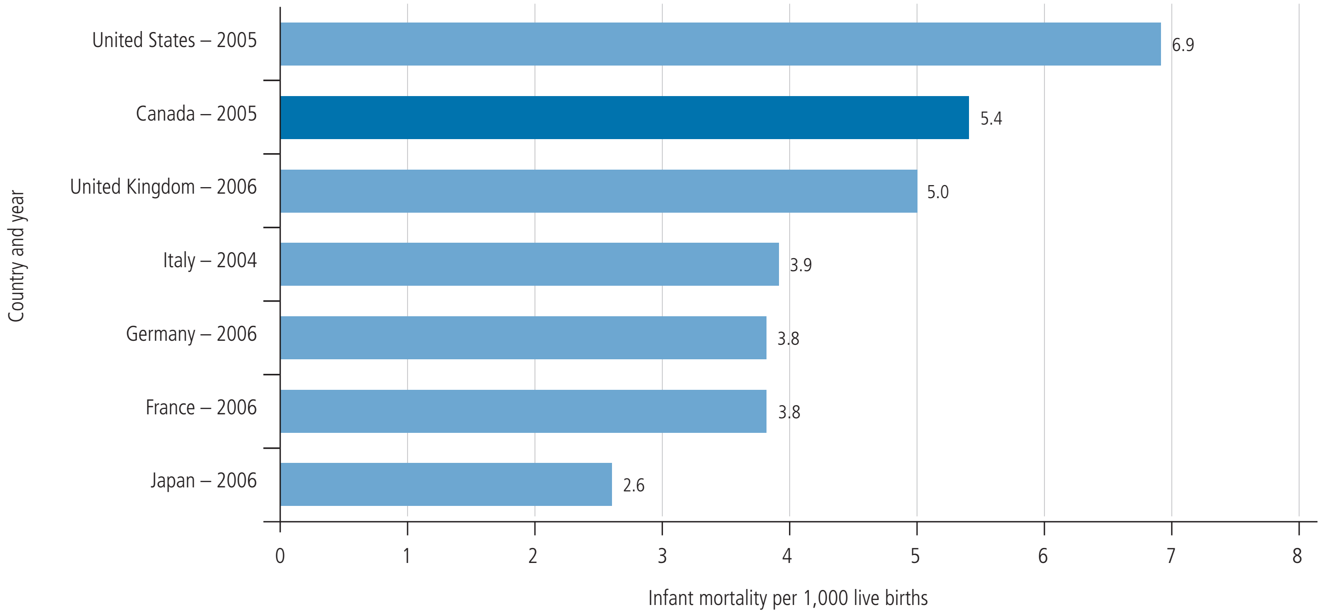
[28] The *Canadian Perinatal Health Report, 2008 Edition* is available at: http://www.publichealth.gc.ca/cphr.

Figure 31 Infant Mortality

Deaths per 1,000 live births, both sexes, selected countries and years



Source: Organisation for Economic Co-operation and Development. *Health Data, 2008*.

Notes: Data for France, Germany, Japan and the U.K. are from 2006; data for Canada and the U.S. are from 2005; and datum for Italy is from 2004.

Data are not comparable to Canadian trend data for the indicator *Infant mortality* because OECD data are for all live births, while the Canadian indicator is for births with weights greater than or equal to 500 g.

For additional exclusions/limitations, see Annex 3.

Results: In 2005, the infant mortality rate in Canada was 4.4 deaths per 1,000 live births, with 4.9 deaths per 1,000 male live births and 3.9 deaths per 1,000 female live births.

Reference years for Organisation for Economic Co-operation and Development (OECD) data differ according to the country in question. Moreover, interpretation of international comparisons of infant low birth weight should be done with caution as there are international variations in the registration of stillbirths and live births.[29]

Internationally, Canada had the second highest infant mortality rate of the G7 countries.

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[29] The *Canadian Perinatal Health Report, 2008 Edition* is available at: http://www.publichealth.gc.ca/cphr.

22. Low birth weight

Relevance: The 2000 Communiqué specifically mentioned low birth weight as a health status indicator. All agreements also underscored the importance of developing strategies and policies that provide support for early childhood development. The indicator *Low birth weight* is an important measure of infant health and, like infant mortality, reflects the overall health of a given society.

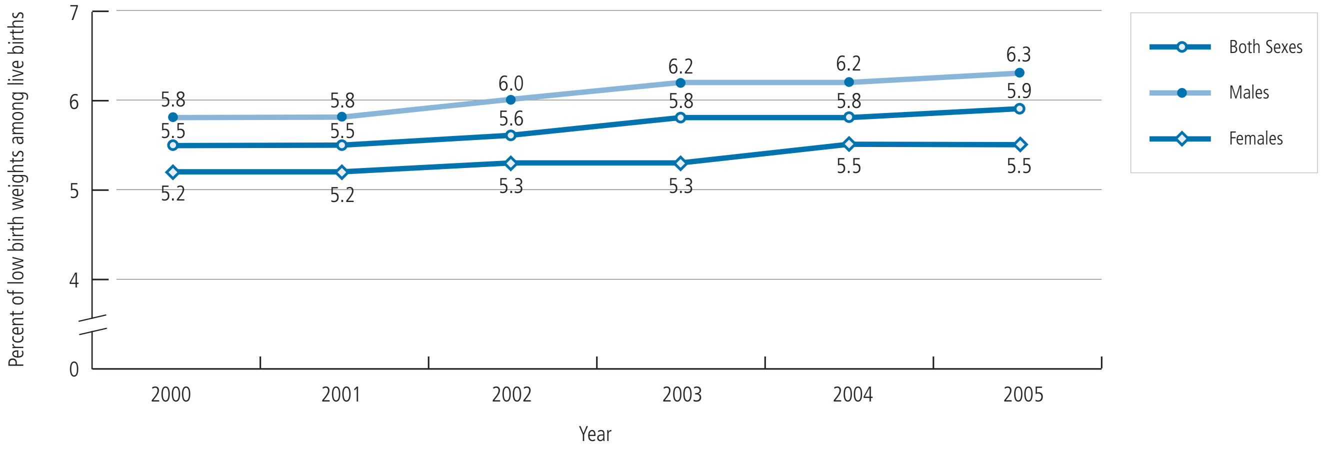
Description: This indicator measures the proportion of live births (where birth weight is known) with a birth weight less than 2,500 grams and at least 500 grams.

Advisory to Readers: Low birth weight is an indicator of the general health of newborns, and is a key determinant of infant survival, health and development. Low birth weight can result from being born too early (preterm birth) and/or inadequate foetal growth (small-for-gestational-age), both of which are associated with increased infant morbidity and mortality. Low birth weight, including the components preterm birth and small-for-gestational-age, is associated with a number of factors including poor maternal health and nutrition, maternal smoking, low pre-pregnancy body mass index (BMI), multiple gestation (e.g., twins, triplets), delayed childbearing, and economic circumstances. As preterm births and small-for-gestational age births have differing causes and trends, it is important to examine these two components of low birth weight rate separately to better understand and monitor perinatal health in Canada.[30]

Inaccuracies in the rate of preterm birth may occur due to errors in the reporting of gestational age, particularly when it is based on menstrual dates. However, errors have diminished in recent decades because ultrasound, which can more accurately confirm gestational age, has become widely used in Canada. In addition, variations in the ethnic composition of the population may play a role in birth weight because some ethnic groups tend to have babies of lower weight even though these infants are otherwise healthy.

Figure 32 **Low Birth Weight**

Proportion of live births with a birth weight less than 2,500 g and at least 500 g, by sex, Canada, 2000–2005



Sources: Statistics Canada. Vital Statistics files, Birth and Death Databases.
Institut de la Statistique du Québec.

Notes: Infants born outside the province/territory of residence of their mothers are included in the rates for the mother's province/territory of residence.

For additional exclusions/limitations, see Annex 3.

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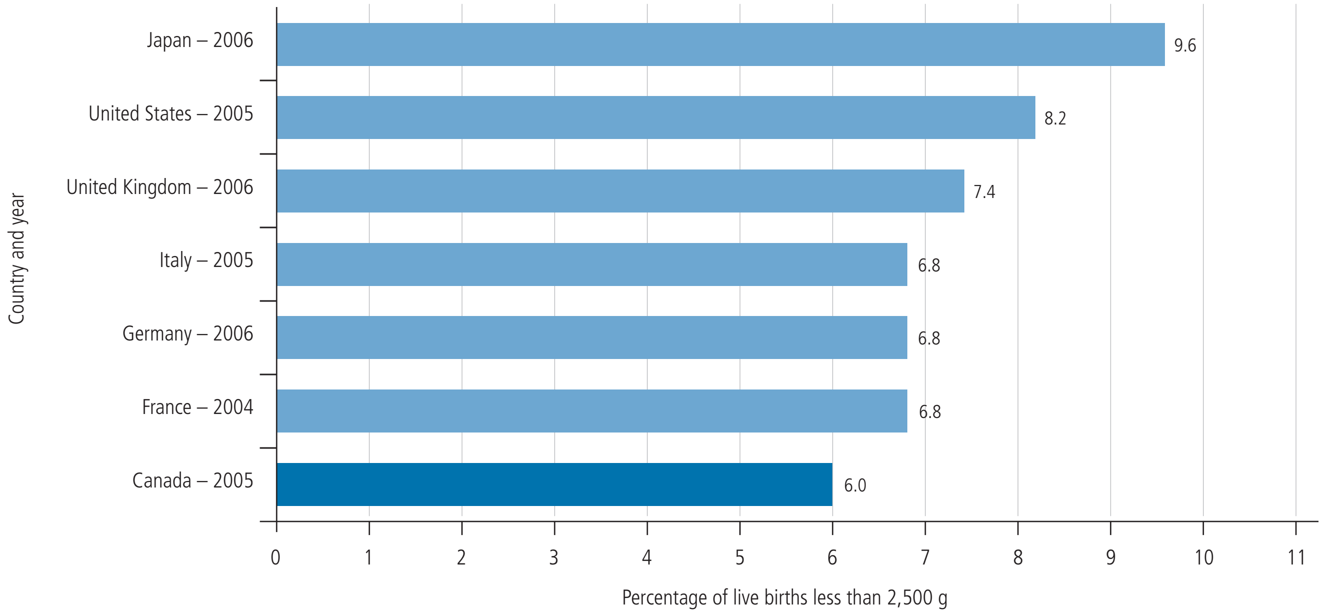
[30] For more information, consult the *Canadian Perinatal Health Report, 2008 Edition* which is available at: http://www.publichealth.gc.ca/cphr.

Figure 33 Low Birth Weight

Percentage of live births weighing less than 2,500 g, both sexes, selected countries and years



Source: Organisation for Economic Co-operation and Development. *Health Data, 2008*.

Notes: Data for Germany, Japan and the U.K. are from 2006; data for Canada, Italy and the U.S. are from 2005; and datum for France is from 2004.

Data are not comparable to Canadian trend data for the indicator *Low birth weight* because OECD data are for births weighing less than 2,500 g, while the Canadian indicator is for births with weights greater than or equal to 500 g but less than 2,500 g.

For additional exclusions/limitations, see Annex 3.

Results: In 2005, the proportion of live births weighing less than 2,500 grams and at least 500 grams was 5.9%. The low birth weight rate for females and males was 6.3% and 5.5%, respectively. The rate of low-weight births has been increasing since 2000.

Reference years for Organisation for Economic Co-operation and Development (OECD) data vary according to the country. Furthermore, international variations exist in the registration of stillbirths and live births. OECD data include all live births weighing less than 2,500 grams, while data in the graph on low birth weight in Canada include only live births weighing between 500 grams and 2,500 grams. Thus, interpretation of international comparisons of infant low birth weight should be done with caution.[31]

Internationally, Canada had the lowest rate of low birth weight births of the G7 countries, with only 6.0% of live births weighing less than 2,500 grams.

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[31] The *Canadian Perinatal Health Report, 2008 Edition* is available at: http://www.publichealth.gc.ca/cphr.

23. Potential years of life lost due to suicide
24. Potential years of life lost due to unintentional injury

Relevance: The 2003 Health Accord asked Health Ministers to consider the development of a health status and wellness indicator on the issue of potential years of life lost (PYLL). The indicators *Potential years of life lost due to suicide* and *Potential years of life lost due to unintentional injury* respond to this request.

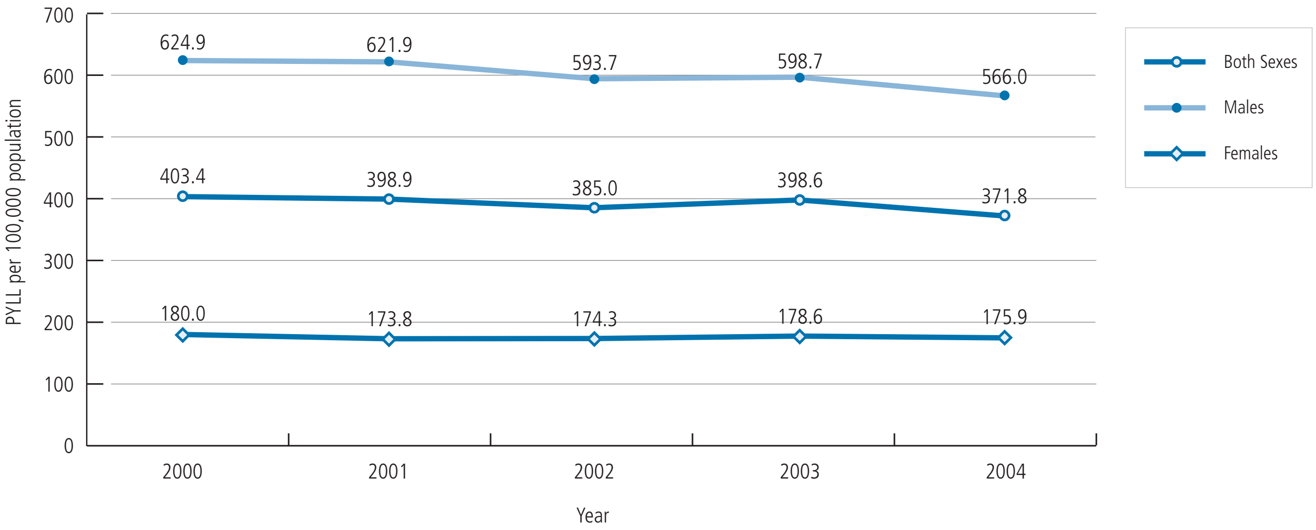
Description: These two indicators measure the number of years of life lost due to suicide or unintentional injury when a person dies "prematurely," which is defined as dying before age 75. For example, a death due to suicide or unintentional injury at age 25 represents a loss of 50 potential years of life.

Advisory to Readers: Life expectancy is the most widely used indicator based on mortality rates. Because it measures the average expectation of life, it reflects changing lengths of life for the very old, and changes in mortality rates for the non-elderly. PYLL is a complementary indicator that focuses on mortality among the non-elderly. It reflects the level of success in preventing premature (and presumably preventable or postponable) loss of life as well as any related loss of social and economic productivity. In addition to being an overall indicator of population health and well-being, PYLL also serves as an indicator of the effectiveness of prevention programs.

As people age, co-morbidity (the presence of two or more illnesses in the same individual at the same time) becomes very frequent, and death is often the result of a complex process. PYLL, meanwhile, is more meaningful for diseases that can be identified as the sole cause of death and for those that kill at an early age. This is because PYLL is only based on the statistics related to single causes of death.

Figure 34 Potential Years of Life Lost due to Suicide

Potential years of life lost (PYLL) due to suicide, rate per 100,000 population aged 0–74, by sex, Canada, 2000–2004



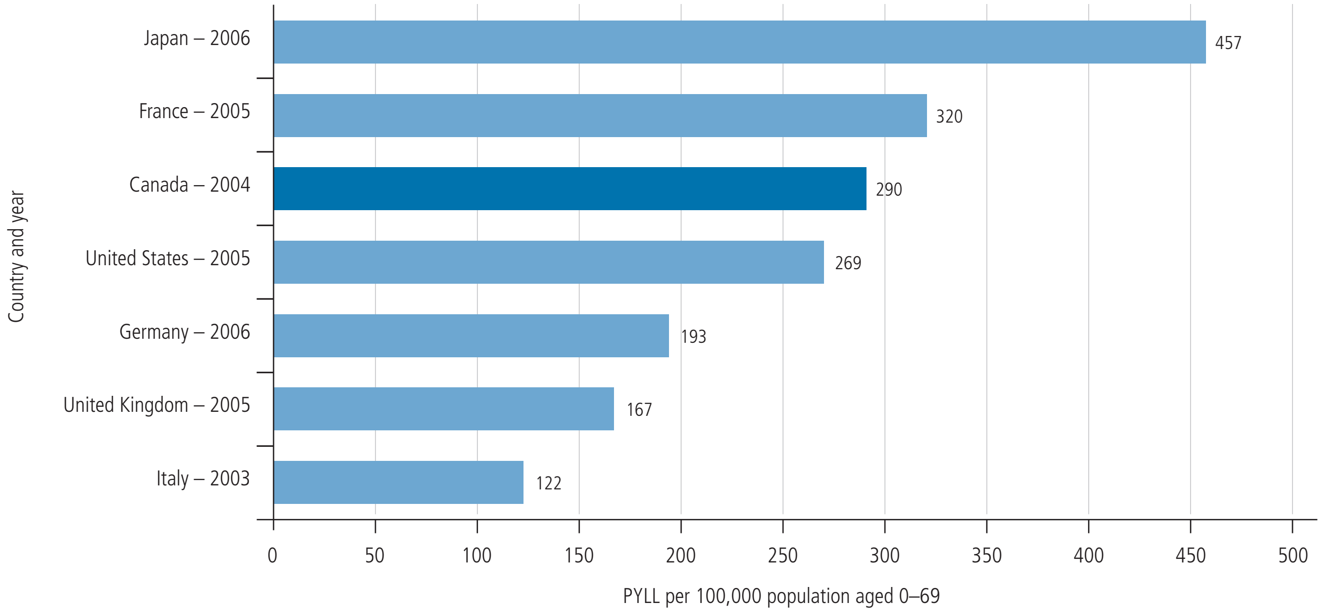
Sources: Statistics Canada. Vital Statistics files, Death Database and Demography Division (population estimates). Institut de la Statistique du Québec.

Notes: PYLL is calculated for ages <75.

For additional exclusions/limitations, see Annex 3.

Figure 35 Potential Years of Life Lost due to Intentional Self-Harm

Potential years of life lost (PYLL) due to intentional self-harm, rate per 100,000 population aged 0–69, both sexes (age-standardized), selected countries and years



Source: Organisation for Economic Co-operation and Development. *Health Data, 2008*.

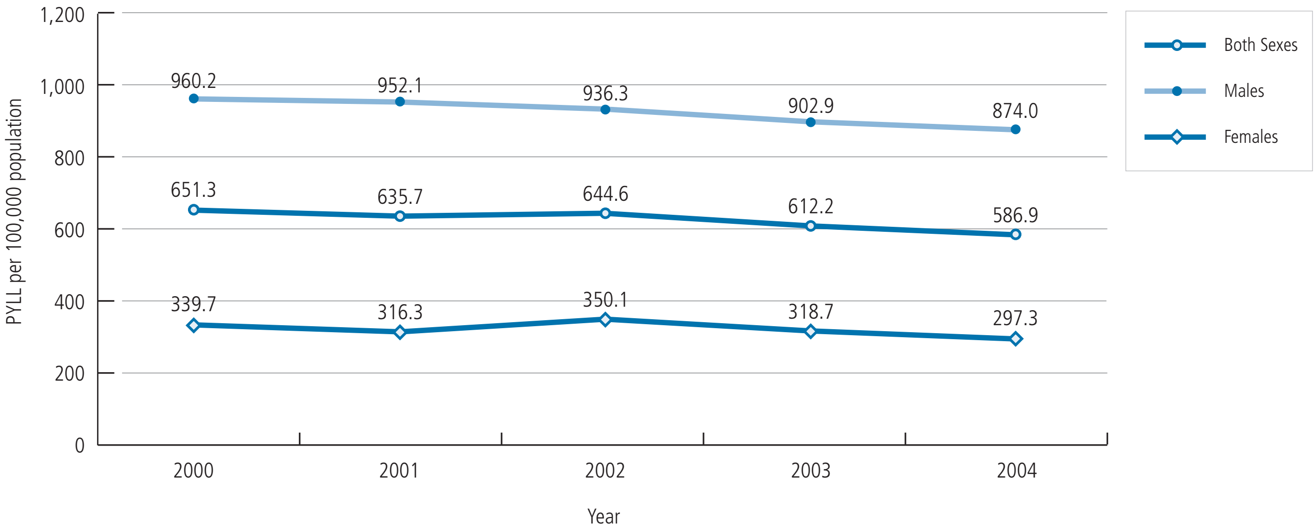
Notes: Data for Germany and Japan are from 2006; data for France, the U.K. and the U.S. are from 2005; datum for Canada is from 2004; and datum for Italy is from 2003.

Data are not comparable to Canadian trend data for the indicator *Potential years of life lost due to suicide* because OECD data are age-standardized to the 1980 total OECD population whereas the data in the Canadian graph are not age-standardized. In addition, PYLL is calculated to age 70, rather than age 75.

For additional exclusions/limitations, see Annex 3.

Figure 36 Potential Years of Life Lost due to Unintentional Injuries

Potential years of life lost (PYLL) due to unintentional injuries, rate per 100,000 population aged 0–74, by sex, Canada, 2000–2004



Sources: Statistics Canada. Vital Statistics files, Death Database and Demography Division (population estimates). Institut de la Statistique du Québec.

Notes: PYLL is calculated for ages <75.

For additional exclusions/limitations, see Annex 3.

Results: In 2004, the potential years of life lost (PYLL) to suicide in Canada represented an average of 371.8 years lost per 100,000 population. The PYLL due to suicide for males and females was 566.0 years per 100,000 males and 175.9 years per 100,000 females, respectively. PYLL due to suicide has been decreasing for males and for both sexes combined since 2000.

Also in 2004, the PYLL due to unintentional injuries in Canada represented 586.9 years per 100,000 population. The PYLL for males and females was 874.0 per 100,000 males and 297.3 years per 100,000 females, respectively. PYLL due to unintentional injuries has decreased for males since 2000.

Organisation for Economic Co-operation and Development (OECD) data are age-standardized to the 1980 total OECD population whereas Canadian data (presented in the graph, *Potential Years of Life Lost Due to Suicide*) are not age-standardized. In addition, OECD PYLL is calculated to age 70 rather than age 75. Thus, data are not directly comparable between OECD and Canadian graphs.

Of the G7 countries, Canada had the third highest PYLL due to intentional self-harm.

25. Incidence rate for lung cancer
26. Incidence rate for prostate cancer
27. Incidence rate for breast cancer
28. Incidence rate for colorectal cancer

Relevance: The 2003 Health Accord suggested that indicators be developed on mortality and survival rates for cancers. Indicators on the incidence rates of lung, prostate, breast and colorectal cancer, combined with mortality indicators concerning the same sites, as well as other indicators on access, quality and health outcomes, provide a good picture of the performance of our health system and the health status of Canadians.

Description: These four indicators measure the number of newly diagnosed primary cancer cases in a given year for lung, prostate, breast and colorectal sites 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.

Advisory to Readers: The incidence rates presented are age-standardized. Age-standardized rates have been relatively stable but, overall, the actual incidence rates are increasing due to the aging Canadian population, potentially representing an increased burden on the health care system. Changes in population size and age structure are the primary components of the increasing burden of cancer among Canadians.[32]

These incidence rates are influenced by two factors: (1) the underlying rate of cancer incidence, which partly reflects the past prevalence of risk factors such as smoking and, therefore, the success of primary prevention efforts; and (2) the rate of detection and diagnosis of cancers, which can be influenced by the intensity and effectiveness of cancer screening programs. These two factors, however, work in opposite directions. For example, an increase in measured cancer incidence could reflect either some deterioration in an individual's healthy lifestyle or an improvement in screening, although the latter may represent a "screening artefact," that is, an error or misrepresentation introduced by the screening technique itself. It is unlikely that this artefact continues for an extended period of time so that, generally, a declining incidence of cancer suggests a positive change in population health. This interpretation issue is being addressed by the addition of "staging" data to the cancer registry systems. Cancer staging provides information on how advanced the cancer is (i.e., what stage it is) at the time of diagnosis.

Regarding the use of incidence figures, there is an increasing awareness that a successful decrease in one disease may simply lead to an increase in the incidence of some other conditions, with no net benefit. Therefore, when one cause of death or disability is replaced by another, it is important to know if there is a net increase in life span or if there is a significant gap in time between the decrease in mortality for one cause and the increased mortality for another. Moreover, the quality of health during the remaining years is also crucial. Aggregated measures of health such as potential years of life lost (PYLL) and disability-free life expectancy (DFLE) help to address this issue.

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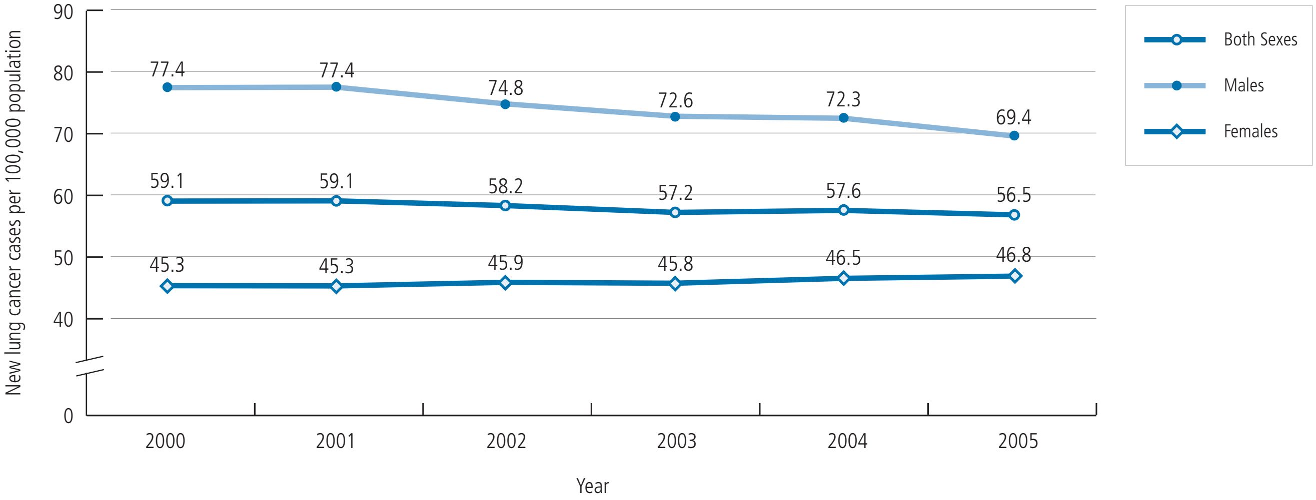
[32] Details on cancer trends can be found in the Canadian Cancer Statistics 2008 report, available at: http://www.cancer.ca/Canada-wide/About%20cancer/Cancer%20statistics/~/media/CCS/Canada%20wide/Files%20List/English%20files%20heading/pdf%20not%20in%20publications%20section/Canadian%20Cancer%20Society%20Statistics%20PDF%202008_614137951.ashx.

Figure 37 Incidence Rate for Lung Cancer

Incidence rate for lung cancer, per 100,000 population, by sex (age-standardized), Canada, 2000–2005



Sources: Statistics Canada. Canadian Cancer Registry.
Institut de la Statistique du Québec.

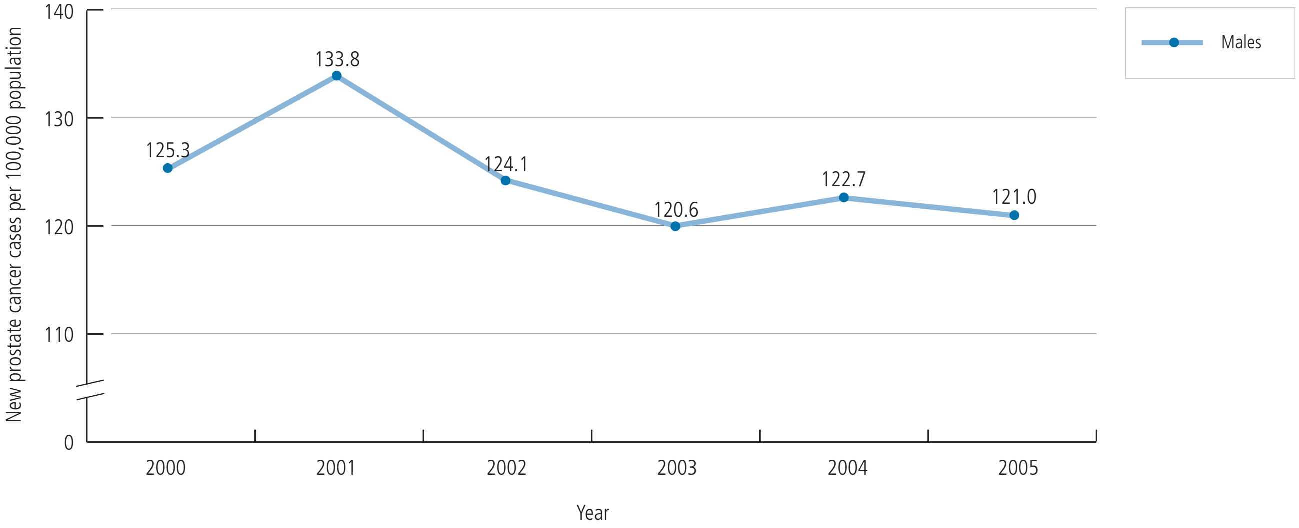
Notes: Includes cancers of the trachea, bronchus and lungs (ICD-10 Codes C33–C34).

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 38 Incidence Rate for Prostate Cancer

Incidence rate for prostate cancer, per 100,000 population, males (age-standardized), Canada, 2000–2005



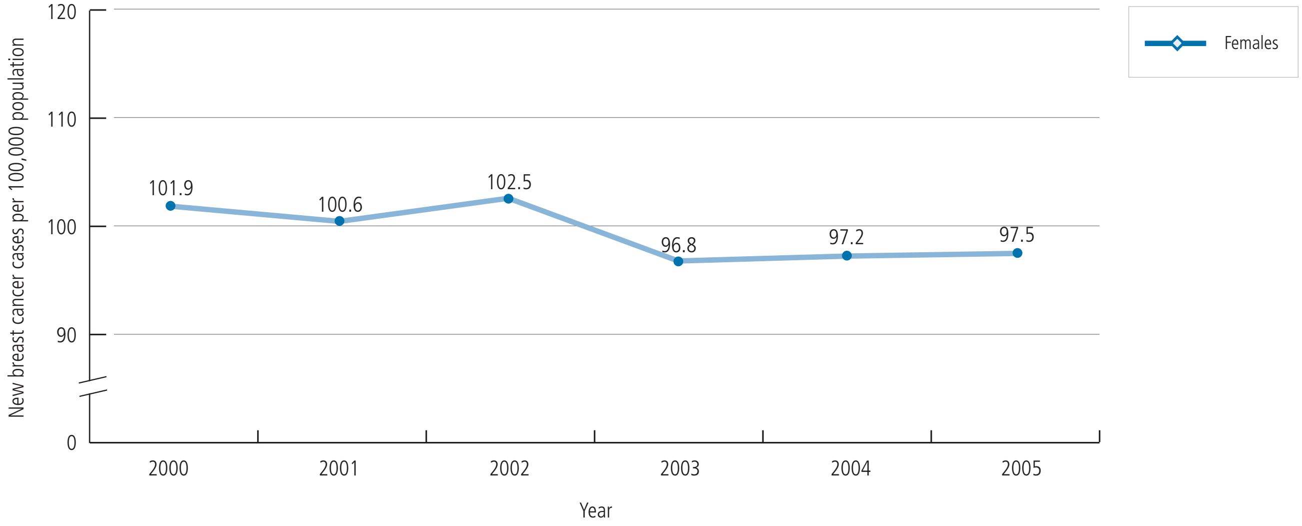
Sources: Statistics Canada. Canadian Cancer Registry.
Institut de la Statistique du Québec.

Notes: Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 39 Incidence Rate for Breast Cancer

Incidence rate for breast cancer, per 100,000 population, females (age-standardized), Canada, 2000–2005



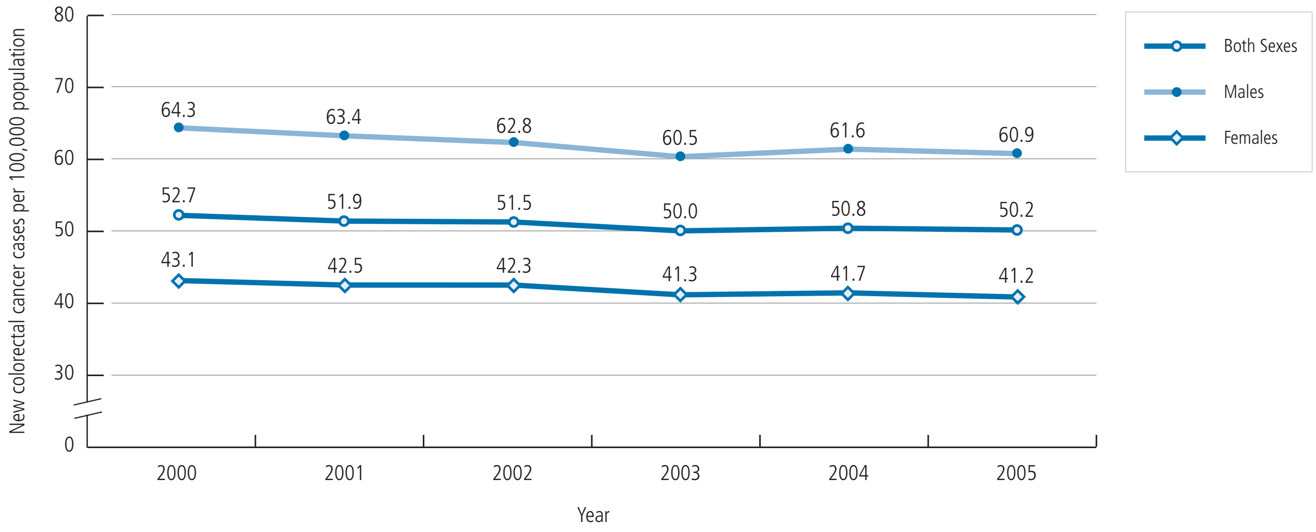
Sources: Statistics Canada. Canadian Cancer Registry.
Institut de la Statistique du Québec.

Notes: Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 40 Incidence Rate for Colorectal Cancer

Incidence rate for colorectal cancer, per 100,000 population, by sex (age-standardized), Canada, 2000–2005



Sources: Statistics Canada. Canadian Cancer Registry
Institut de la Statistique du Québec.

Notes: Includes cancers of the colon, rectum and rectosigmoid junction (ICD-10 Codes C18–C20).

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Results: In 2005, the average lung cancer incidence rate in Canada was 56.5 new cases per 100,000 population, with 69.4 new cases per 100,000 males and 46.8 new cases per 100,000 females. This is a decrease from 77.4 new cases per 100,000 males in 2000 and 59.1 new cases per 100,000 population for both sexes combined. Males continue to have higher incidence rates of lung cancer, though the difference between male and female rates has decreased since 2000.

Also in 2005, the prostate cancer incidence rate in males was 121.0 new cases per 100,000 males—a decrease from 125.3 new cases per 100,000 males in 2000, while the breast cancer incidence rate in females was 97.5 new cases per 100,000 females—a decrease from 101.9 new cases per 100,000 females in 2000.

The average colorectal cancer incidence rate in Canada was 50.2 new cases per 100,000 population in 2005, with 60.9 new cases per 100,000 males and 41.2 new cases per 100,000 females. The rates are lower than those observed in 2000, when there were 52.7 new cases per 100,000 population overall, with 64.3 new cases per 100,000 males and 43.1 cases per 100,000 females.

Despite the decreases in age-standardized rates, the number of new cancer cases and deaths continues to rise steadily as the Canadian population grows and ages.

29. Mortality rate for lung cancer
30. Mortality rate for prostate cancer
31. Mortality rate for breast cancer
32. Mortality rate for colorectal cancer

Relevance: The 2003 Health Accord suggested that indicators be developed on mortality rates for cancers. Indicators on the mortality rates of lung, prostate, breast and colorectal cancer, combined with incidence indicators concerning the same sites, as well as other indicators on access, quality and health outcomes, provide a good picture of the performance of our health system and the health status of Canadians.

Description: These four indicators measure the number of deaths of individuals where the underlying cause of death is lung, prostate, breast or colorectal cancer per 100,000 population that would be observed in the population if it had the same age composition as the reference or "standard" population.

Advisory to Readers: Prostate, breast, lung and colorectal cancer represent the four most common cancer sites. The mortality rates presented here are age-standardized. Age-standardized rates are useful for comparison between years due to the aging Canadian population, but may underestimate the burden on the health care system, as changes in population size and age structure are the primary components of the increasing burden of cancer among Canadians. In addition, as stated in the document *Canadian Cancer Statistics 2008*, "Despite the relative stability in age-standardized rates, the numbers of new cancer cases and deaths continue to rise steadily as the Canadian population grows and ages."[33] Prevention, detection and treatment can help reduce death rates due to cancer or cardiovascular disease. Although mortality rates for some conditions are on the decline, mortality rates are rising in other areas (visit the web link in the footnote below for more information). Due to the inclusion of cancers of the anus, the international data on colorectal cancer mortality rates will differ slightly from the rates reported for Canada.

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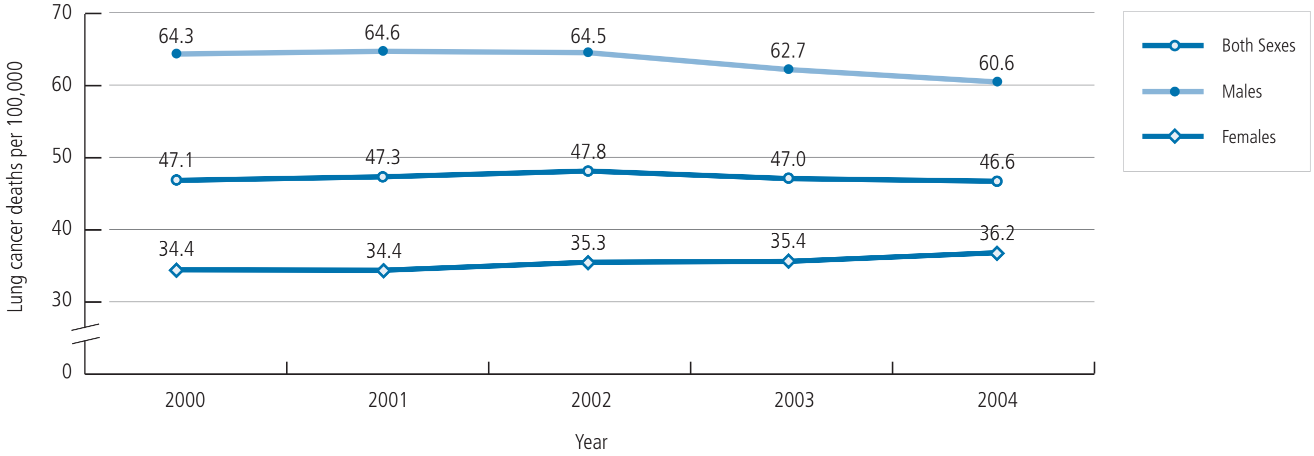
[33] Details on cancer trends can be found in the *Canadian Cancer Statistics 2008* report, available at: http://www.cancer.ca/Canada-wide/About%20cancer/Cancer%20statistics/~/media/CCS/Canada%20wide/Files%20List/English%20files%20heading/pdf%20not%20in%20publications%20section/Canadian%20Cancer%20Society%20Statistics%20PDF%202008_614137951.ashx.

Figure 41 Mortality Rate for Lung Cancer

Mortality rate for lung cancer, per 100,000 population, by sex (age-standardized), Canada, 2000–2004



Sources: Statistics Canada. Vital Statistics files, Death Database.
Institut de la Statistique du Québec.

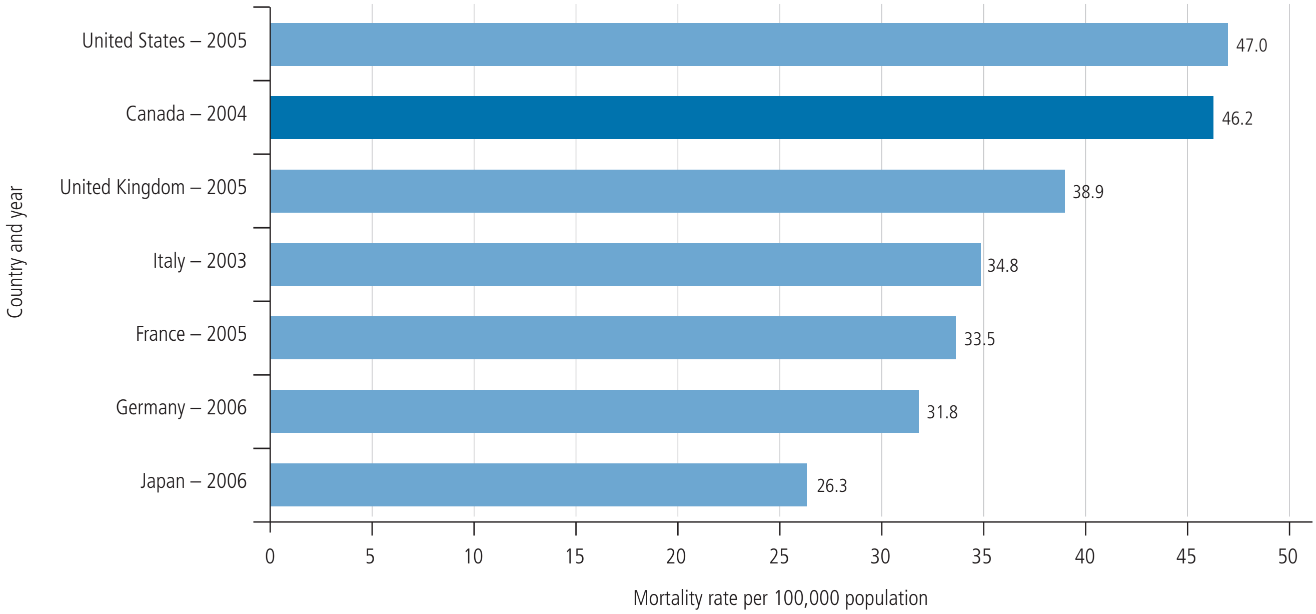
Notes: Includes cancers of the trachea, bronchus, and lungs (ICD-10 Codes C33–C34).

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 42 Mortality Rate for Lung Cancer

Mortality rate for lung cancer, per 100,000 population, both sexes (age-standardized), selected countries and years



Source: Organisation for Economic Co-operation and Development. *Health Data, 2008*.

Notes: Data for Germany and Japan are from 2006; data for France, the U.K. and the U.S. are from 2005; datum for Canada is from 2004; and datum for Italy is from 2003.

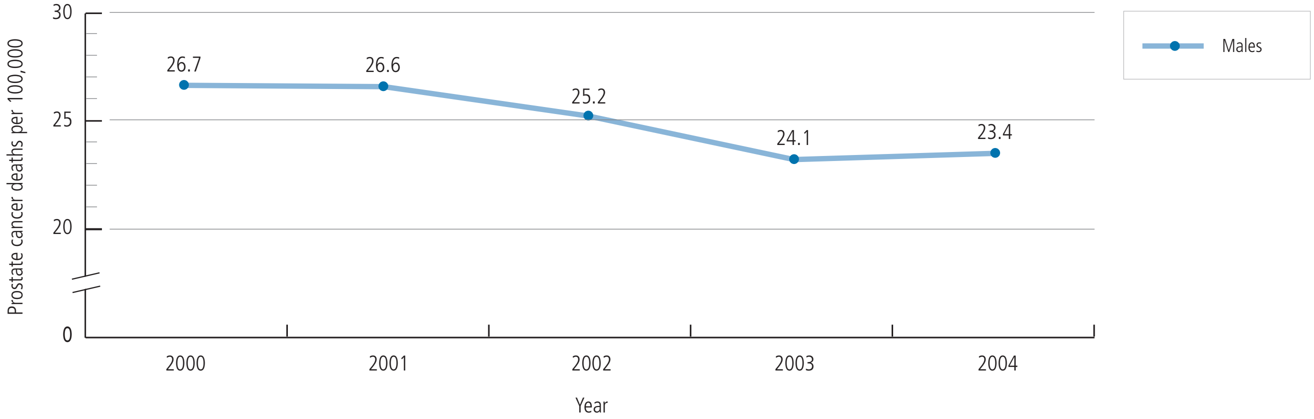
Includes cancers of the trachea, bronchus and lungs (ICD-10 Codes C33–C34).

Data are not comparable to Canadian trend data for the indicator *Mortality rate for lung cancer* because OECD data are age-standardized to the 1980 total OECD population rather than the 1991Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 43 Mortality Rate for Prostate Cancer

Mortality rate for prostate cancer, per 100,000 population, males (age-standardized), Canada, 2000–2004



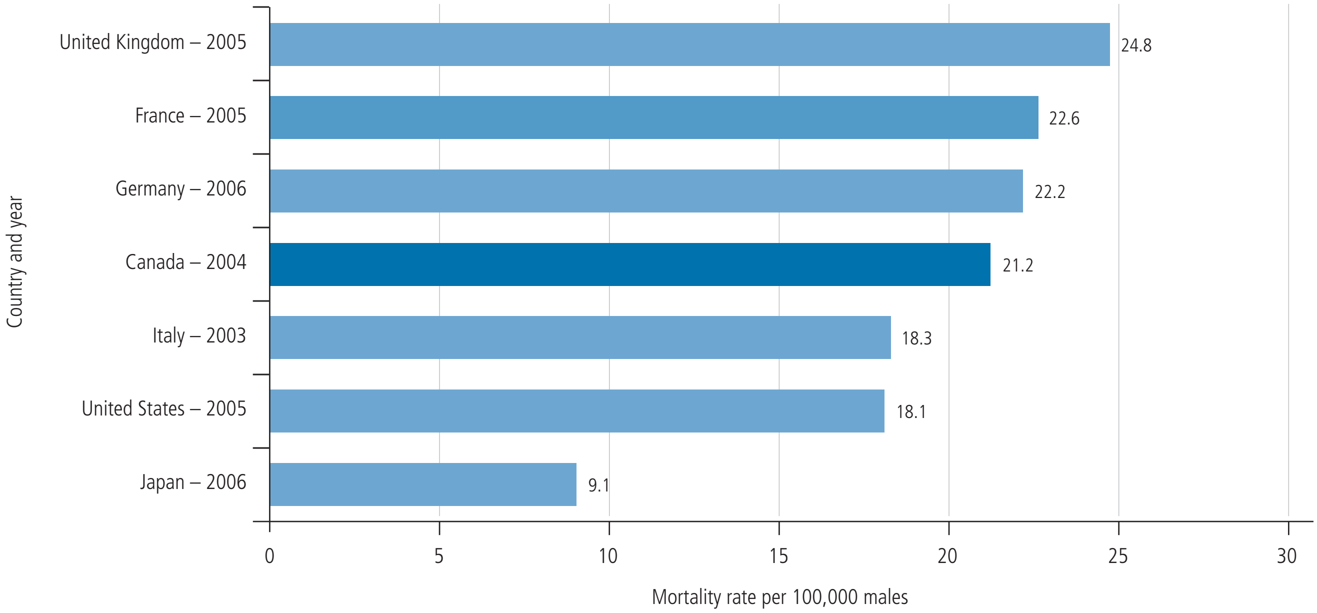
Sources: Statistics Canada. Vital Statistics files, Death Database.
Institut de la Statistique du Québec.

Notes: Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 44 Mortality Rate for Prostate Cancer

Mortality rate for prostate cancer, per 100,000 males (age-standardized), selected countries and years



Source: Organisation for Economic Co-operation and Development. *Health Data, 2008*.

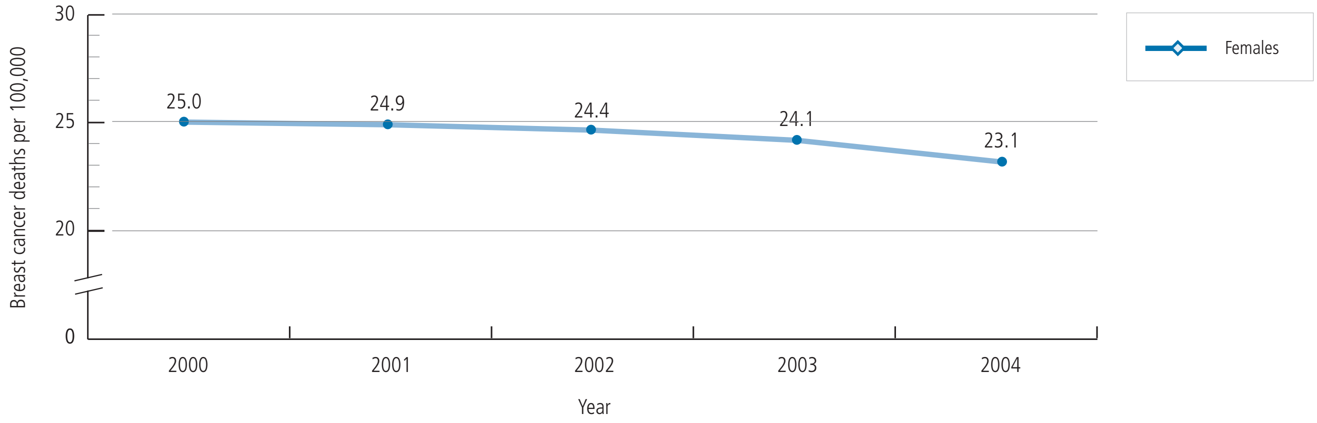
Notes: Data for Germany and Japan are from 2006; data for France, the U.K. and the U.S. are from 2005; datum for Canada is from 2004; and datum for Italy is from 2003.

Data are not comparable to Canadian trend data for the indicator *Mortality rate for prostate cancer* because OECD data are age-standardized to the 1980 total OECD population rather than the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 45 Mortality Rate for Breast Cancer

Mortality rate for breast cancer, per 100,000 population, females (age-standardized), Canada, 2000–2004



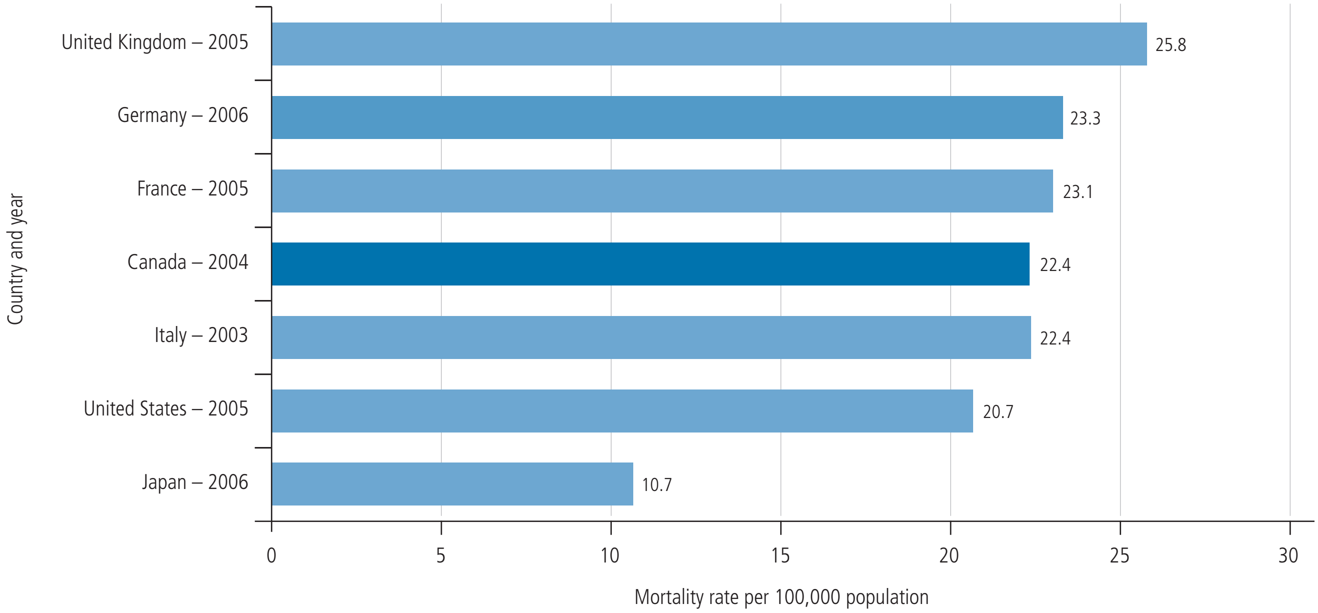
Sources: Statistics Canada. Vital Statistics files, Death Database.
Institut de la Statistique du Québec.

Notes: Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 46 Mortality Rate for Breast Cancer

Mortality rate for breast cancer, per 100,000 females (age-standardized), selected countries and years



Source: Organisation for Economic Co-operation and Development. *Health Data, 2008*.

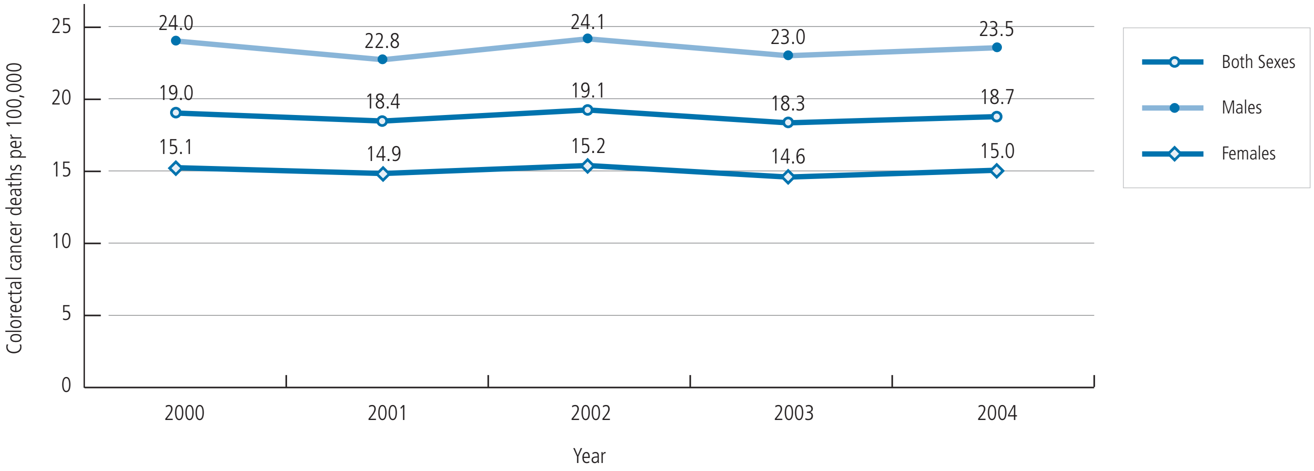
Notes: Data for Germany and Japan are from 2006; data for France, the U.K. and the U.S. are from 2005; datum for Canada is from 2004; and datum for Italy is from 2003.

Data are not comparable to Canadian trend data for the indicator *Mortality rate for breast cancer* because OECD data are age-standardized to the 1980 total OECD population rather than the 1991Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 47 Mortality Rate for Colorectal Cancer

Mortality rate for colorectal cancer, per 100,000 population, by sex (age-standardized), Canada, 2000–2004



Sources: Statistics Canada. Vital Statistics files, Death Database.
Institut de la Statistique du Québec.

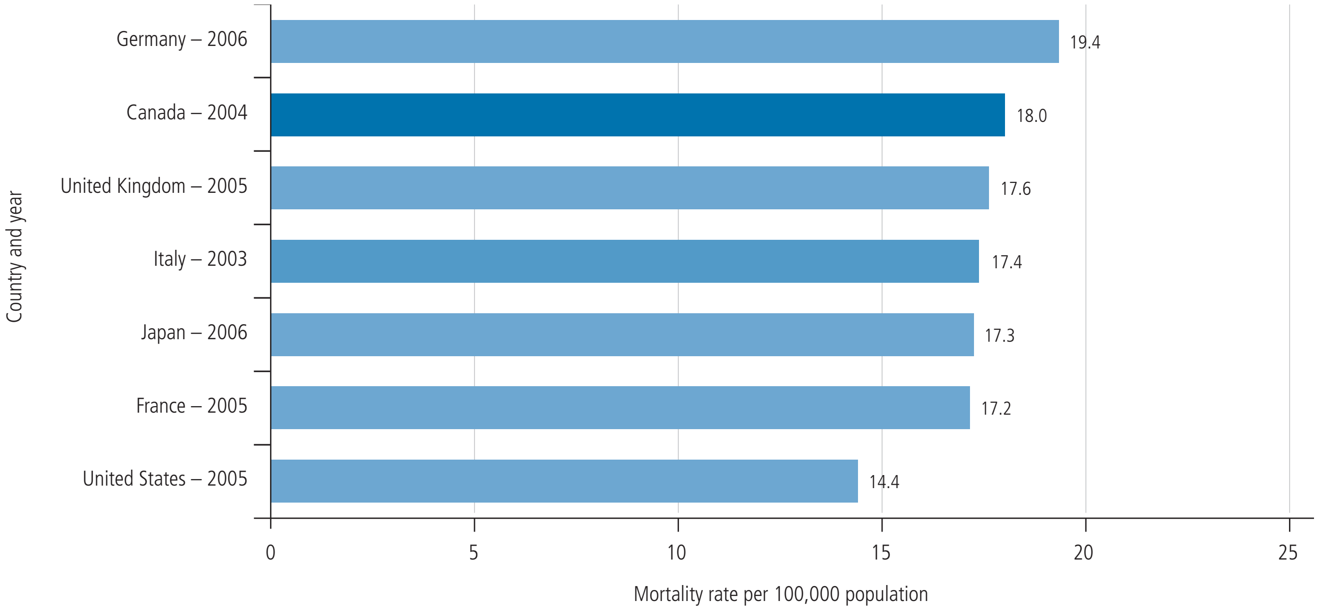
Notes: Includes cancers of the colon, rectum, and rectosigmoid junction (ICD-10 Codes C18–C20).

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 48 Mortality Rate for Colon Cancer

Mortality rate for colon cancer, per 100,000 population, both sexes (age-standardized), selected countries and years



Source: Organisation for Economic Co-operation and Development. *Health Data, 2008*.

Notes: Data for Germany and Japan are from 2006; data for France, the U.K. and the U.S. are from 2005; datum for Canada is from 2004; and datum for Italy is from 2003.

Data are not comparable to Canadian trend data for the indicator *Mortality rate for colorectal cancer* because OECD data are age-standardized to the 1980 total OECD population rather than the 1991 Canadian population. In addition, OECD data include mortality due to cancers of the colon, rectum, rectosigmoid junction and anus (ICD-10 Codes C18–C21), while Canadian trend data refers only to cancers of the colon, rectum and rectosigmoid junction (ICD-10 Codes C18–C20).

For additional exclusions/limitations, see Annex 3.

Results: In 2004, the average lung cancer mortality rate in Canada was 46.6 deaths per 100,000 population, with 60.6 deaths per 100,000 males and 36.2 deaths per 100,000 females. Lung cancer mortality rates increased for females from 34.4 deaths per 100,000 females in 2000 to 36.2 deaths per 100,000 females in 2005.

Also in 2004, males had a prostate cancer mortality rate of 23.4 deaths per 100,000 males, which is a decrease from 26.7 deaths per 100,000 males in 2000. Meanwhile, the breast cancer mortality rate was 23.1 deaths per 100,000 females in 2004, and the rates have been decreasing since 2000.

The average colorectal cancer mortality rate in Canada in 2004 was 18.7 deaths per 100,000 population, with 23.5 deaths per 100,000 males and 15.0 deaths per 100,000 females.

Long-term trends for cancers show an overall decrease in the mortality rate for males, predominantly due to dropping lung cancer rates. For females, lung cancer mortality rates are increasing while other cancers have been declining over the past 30 years.[34]

Reference years for Organisation for Economic Co-operation and Development (OECD) data differ according to the country in question. In addition, OECD and Canadian definitions differ—OECD data include mortality due to cancers of the colon, rectum, rectosigmoid junction and anus, while Canadian trend data refer only to cancers of the colon, rectum and rectosigmoid junction. OECD data are also age-standardized to the 1980 total OECD population whereas Canadian data (in each Canadian mortality graph) are age-standardized to the 1991 Canadian population. Therefore, data are not directly comparable between OECD and Canadian graphs.

Considering this, Canada had the second highest lung cancer mortality rate of the G7 countries, after the United States. Canada had the fourth highest prostate cancer mortality rate, and tied with Italy for the third lowest breast cancer rate. Canada also had the second highest colon cancer mortality rate, after Germany.

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[34] Details on cancer trends can be found in the *Canadian Cancer Statistics 2008* report, available at: http://www.cancer.ca/Canada-wide/About%20cancer/Cancer%20statistics/~/media/CCS/Canada%20wide/Files%20List/English%20files%20heading/pdf%20not%20in%20publications%20section/Canadian%20Cancer%20Society%20Statistics%20PDF%202008_614137951.ashx.

33. Prevalence and incidence rates of diagnosed diabetes among Canadians

Relevance: The Accords recognized the importance of health promotion and disease prevention, directing Health Ministers to work on healthy living strategies and initiatives to reduce disparities in health status. Since diabetes is often associated with obesity, poor diets and lack of exercise, trends in the data for this indicator can help assess the effectiveness of initiatives in health promotion and disease control.

Description: This indicator measures the prevalence and incidence rates of diagnosed diabetes among health service users per 100 population (for prevalence) and per 1,000 population (for incidence).

Advisory to Readers: The period prevalence rates of diagnosed diabetes demonstrate the burden of this disease at a given time and are widely used in public health monitoring and planning. Approximately 5.5% of all Canadians are estimated to have diabetes, generating direct costs related to physician and hospital care, and indirect costs related to lost productivity, disability or premature death.[35] Incidence rates measure the risk, among Canadians, of developing new cases of diagnosed diabetes.

The prevalence rate includes all forms of diagnosed diabetes including type 1 diabetes and type 2 diabetes. Gestational diabetes is excluded when it is correctly coded. Efforts are made to exclude gestational diabetes when it is incorrectly coded by ignoring records 120 days before or 90 days after a gestational event. Gestational event refers to medical visits or hospitalizations that indicate pregnancy or birth-related events.

Prevalence rate…

…is the number of people with the condition at the specified point in time divided by the number of people in the population at risk (often expressed as a percentage).

Incidence rate…

…is the number of *new* cases identified with the condition at the specified point in time divided by the number of people in the population at risk.

Data for this indicator come from health professional administrative databases and do not represent self-reported information. Data include First Nations individuals, although they are only identified in British Columbia.

Type 1 diabetes, previously known as insulin-dependent diabetes, typically occurs in childhood or adolescence and requires multiple daily injections for survival. Insulin treatment begins immediately after diagnosis.

Type 2 diabetes, previously known as non-insulin dependent diabetes, usually begins after age 30. Risk factors for type 2 diabetes include obesity and lack of exercise. Eating healthy foods, maintaining a healthy weight and engaging in regular physical activity can decrease the risk of developing type 2 diabetes.

Effective management of diabetes includes maintaining a healthy weight, doing regular physical activity, taking medications when needed, monitoring blood sugar and seeking medical help to identify complications.[36]

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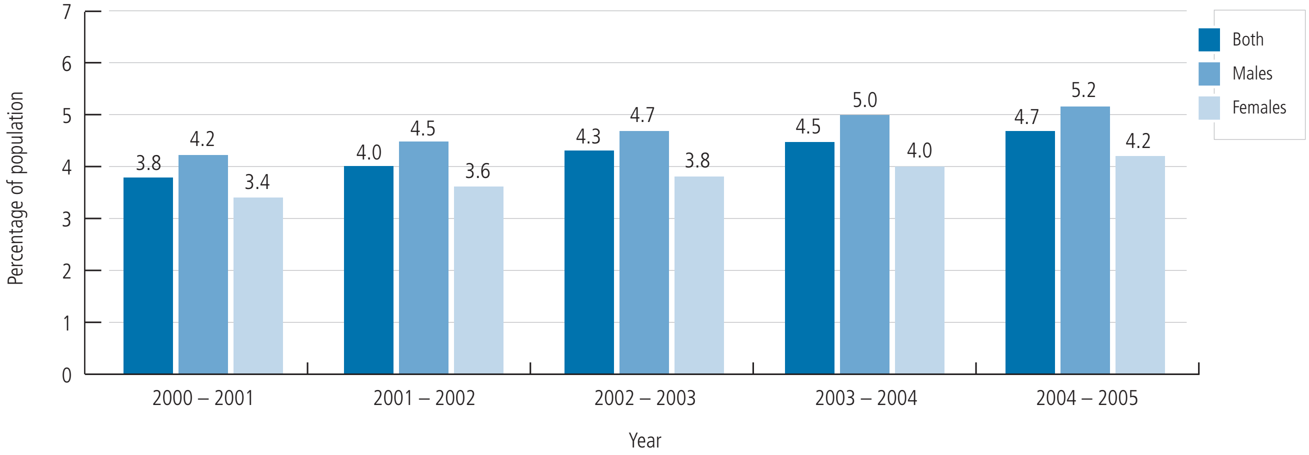
[35] Public Health Agency of Canada. *National Diabetes Fact Sheet, Canada 2007* [Internet]. Available from: http://www.phac-aspc.gc.ca/ccdpc-cpcmc/diabetes-diabete/english/pdf/diabetes07_e.pdf.

[36] Additional information on diabetes is available at: http://www.phac-aspc.gc.ca/cd-mc/diabetes-diabete/index-eng.php. For details on the collection of diabetes data, please consult: http://www.phac-aspc.gc.ca/ccdpc-cpcmc/ndss-snsd/english/index_e.html.

Figure 49 Prevalence of Diabetes

Prevalence rate of diagnosed diabetes among health service users per 100 population, by sex (age-standardized), Canada, 2000–2001 to 2004–2005



Source: Public Health Agency of Canada. National Diabetes Surveillance System.

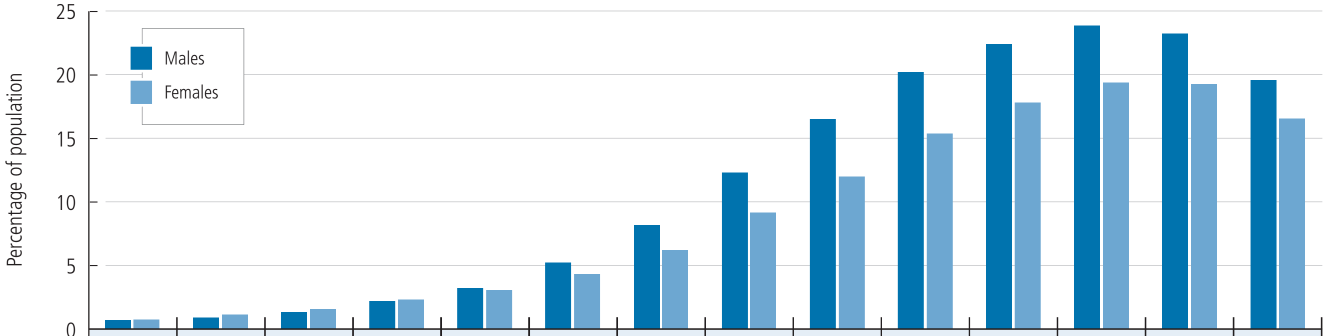
Notes: Three types of diabetes are included in the database: type 1, type 2 and gestational diabetes. Note that gestational diabetes is only included when coded as diabetes mellitus (ICD-9 Code 250 or ICD-10 Codes E10-E14). An adjustment is in place to exclude incorrectly coded gestational diabetes.

Age-standardized to the 1991 Canadian population.

Readers should interpret these data with caution: see Annex 3.

Figure 50 Prevalence of Diabetes

Prevalence rate of diagnosed diabetes among health service users per 100 population, by sex and selected age group, Canada, 2004–2005



	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	>84
Males	0.6	0.8	1.3	2.1	3.2	5.1	8.1	12.2	16.4	20.1	22.4	23.8	23.2	19.4
Females	0.6	1.0	1.5	2.2	2.9	4.1	6.2	9.1	11.9	15.2	17.7	19.3	19.2	16.4

Age group

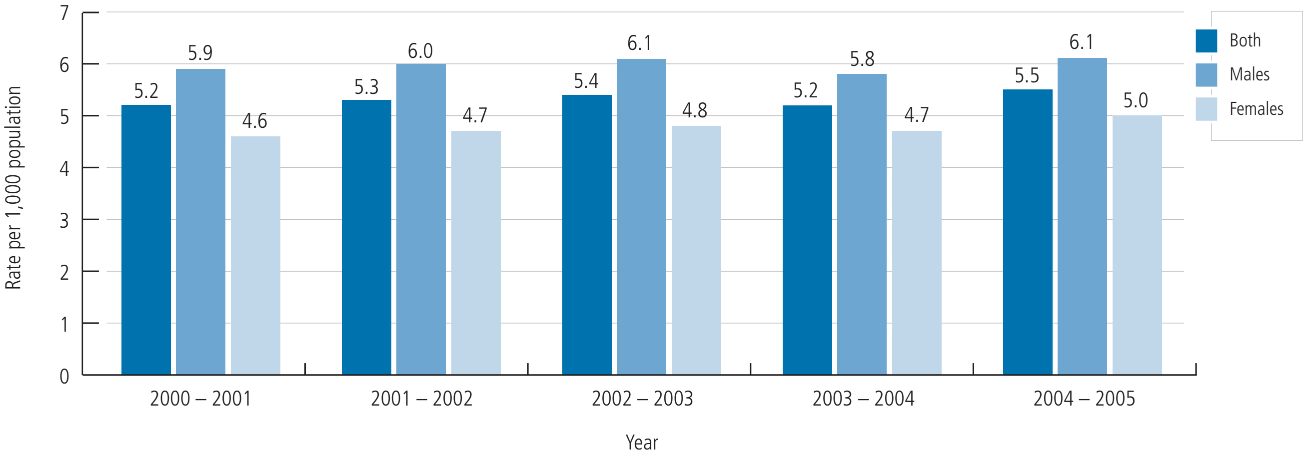
Source: Public Health Agency of Canada. National Diabetes Surveillance System.

Notes: Three types of diabetes are included in the database: type 1, type 2 and gestational diabetes. Note that gestational diabetes is only included when coded as diabetes mellitus (ICD-9 Code 250 or ICD-10 Codes E10-E14). An adjustment is in place to exclude incorrectly coded gestational diabetes.

Readers should interpret these data with caution: see Annex 3.

Figure 51 Incidence of Diabetes

Incidence rate of diagnosed diabetes among health service users per 1,000 population, by sex (age-standardized), Canada, 2000–2001 to 2004–2005



Source: Public Health Agency of Canada. National Diabetes Surveillance System.

Notes: Three types of diabetes are included in the database: type 1, type 2 and gestational diabetes. Note that gestational diabetes is only included when coded as diabetes mellitus (ICD-9 Code 250 or ICD-10-Codes E10–E14). An adjustment is in place to exclude incorrectly coded gestational diabetes.

Age-standardized to the 1991 Canadian population.

Readers should interpret these data with caution: see Annex 3.

Results: In 2004–2005, the year for which the most recent data were available, 4.7% of Canadians received a health service related to a diagnosis of diabetes by a physician, an increase from 3.8% in 2000–2001. Prevalence rates for males and females also increased, from 4.2% for males and 3.4% for females in 2000–2001, to 5.2% for males and 4.2% for females in 2004–2005. The true prevalence of diabetes is likely higher as some people with diabetes are unaware of their condition. Rates increased with age for both sexes, peaking in the 75 to 79 age group then decreasing in the oldest age groups. This phenomenon, while possibly due to mortality associated with diabetes, could also be the result of problems with the data.

In 2004–2005, incidence rates for diabetes were 5.0 cases per 1,000 females and 6.1 cases per 1,000 males, with an average of 5.5 cases per 1,000 population overall. These rates represent increases from the rates in 2000–2001—4.6 cases per 1,000 females, 5.9 cases per 1,000 males and 5.2 cases per 1,000 population overall.

Diabetes is a major public health problem because of its impact on people with heart, kidney, vision and vascular complications, and because of its impact on the health care system. The increase in diabetes is in part attributed to an aging population and to the high prevalence of people who are obese and overweight.

34. Self-reported body mass index

Relevance: A coordinated approach is required to deal with the issue of obesity, to promote physical fitness and to improve public health; thus, First Ministers directed Health Ministers to work on healthy living strategies and other initiatives to reduce disparities in health status. Health promotion often focuses on physical activity, nutrition and diet since obesity, which can be influenced by these behaviours, is a known risk factor for diabetes and heart disease. The indicator *Self-reported body mass index* is an important measure of the effectiveness of health promotion initiatives to address issues like obesity.

Body mass index (BMI)…

. . . is the ratio of a person's weight in relation to their height. It is calculated as weight (in kilograms) divided by height (in metres) squared.

Description: This indicator measures the percentage of adults who reported a height and weight corresponding to a body mass index (BMI) in specified categories ranging from underweight to obese.

Advisory to Readers: BMI is based on self-reported height and weight and is calculated for persons 18 years of age and over, excluding pregnant women. Due to different rates of growth for individuals under 18 years of age, the standard BMI used for adults is not considered a suitable indicator for this group. Statistics Canada has pointed out that self-reported height and weight tend to yield underestimates of the prevalence of overweight and obese individuals in the population.[37] BMI may overestimate the health risks for young adults who have not reached full growth and for adults who are very lean, muscular or physically fit.

BMI does not take bone density into account. BMI may not accurately assess the health risks for adults over 65 and members of certain ethnic and racial groups. BMI measures body weight at one point in time and may not capture the risk for people whose weight has changed (a sudden increase or decrease in weight may be a signal of additional health problems).

Decreasing response rates to the questions concerning BMI in the Canadian Community Health Survey have been observed since 2000–2001, with the non-response rate increasing from 1.8% in 2000–2001 to 4.5% in 2007.

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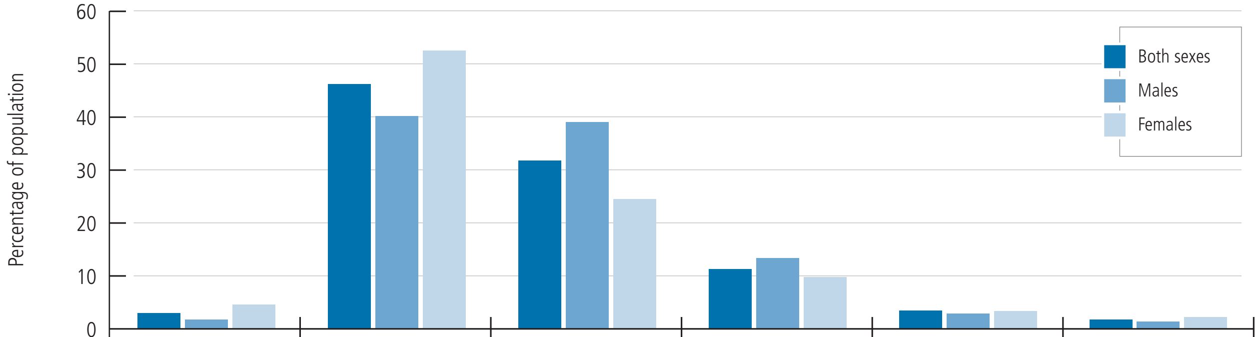
[37] Tjepkema M. *Nutrition: Findings from the Canadian Community Health Survey—Adult obesity in Canada: Measured height and weight* [Internet]. Ottawa: Statistics Canada; 2005. Catalogue No. 82-620-MWE2005001 [cited 2008 Oct 28]. Available from: http://www.statcan.ca/english/research/82-620-MIE/2005001/pdf/aobesity.pdf.

Figure 52 Self-Reported Body Mass Index (All Categories)

Percentage of population who reported height and weight corresponding to a BMI in specified categories, by sex (age-standardized), Canada, 2007



	Underweight (BMI <18.5)	Normal Weight (BMI 18.5–24.9)	Overweight (BMI 25.0–29.9)	Obese Class I (BMI 30.0–34.9)	Obese Class II (BMI 35.0–39.9)	Obese Class III (BMI ≥40.0)
Both Sexes	2.8	45.8	31.5	11.1	3.0	1.5
Males	1.3	39.5	38.6	12.9	2.6	1.2
Females	4.4	52.1	24.2	9.3	3.3	1.8

BMI category

Source: Statistics Canada. Canadian Community Health Survey, 2007.

Notes: Includes household population 18 and older who reported their height and weight.

Data exclude pregnant women and persons measuring less than 91.4 centimetres (three feet) or greater than 210.8 centimetres (six feet, 11 inches) in height.

Results should be treated with caution because a proportion of the difference may be explained by the mode used to collect the data from the respondent (i.e., by phone or in person).

"Not stated" rate not shown.

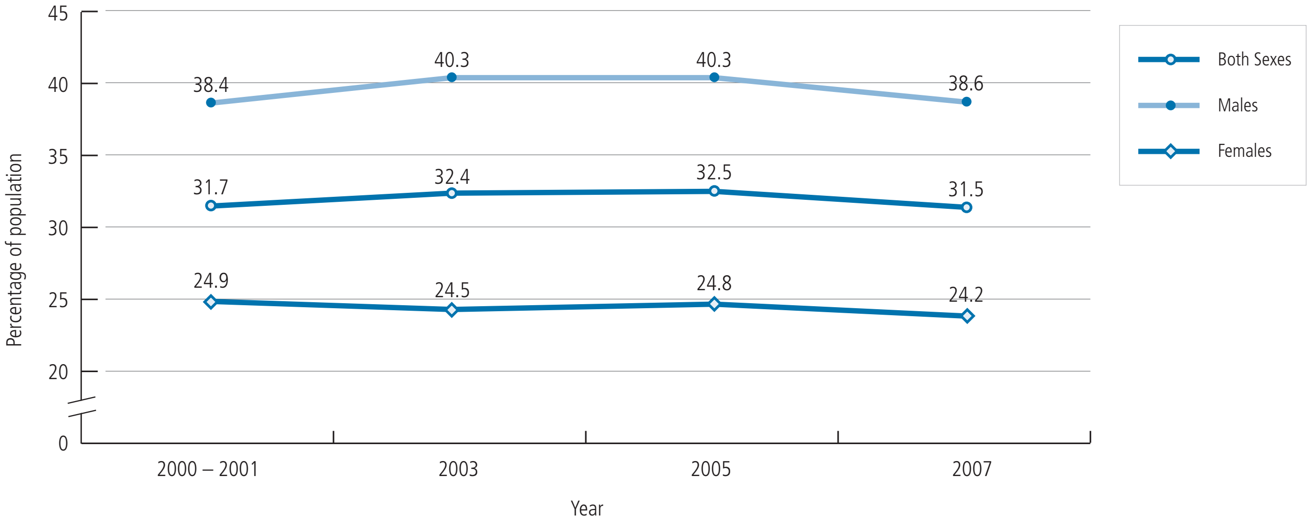
Figures for obese classes I, II and III may not sum up to the totals in the graph *Self-reported body mass index (obese category)* due to rounding.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 53 Self-Reported Body Mass Index (Overweight Category)

Percentage of population who reported height and weight corresponding to a BMI in the overweight category (BMI 25.0–29.9), by sex (age-standardized), Canada, 2000–2001, 2003, 2005 and 2007



Sources: Statistics Canada. Canadian Community Health Survey, 2000–2001, 2003, 2005 and 2007.

Notes: Includes household population 18 and older who reported their height and weight.

Data exclude pregnant women and persons measuring less than 91.4 centimetres (three feet) or greater than 210.8 centimetres (six feet, 11 inches) in height.

Results should be treated with caution because a proportion of the difference may be explained by the mode used to collect the data from the respondent (i.e., by phone or in person).

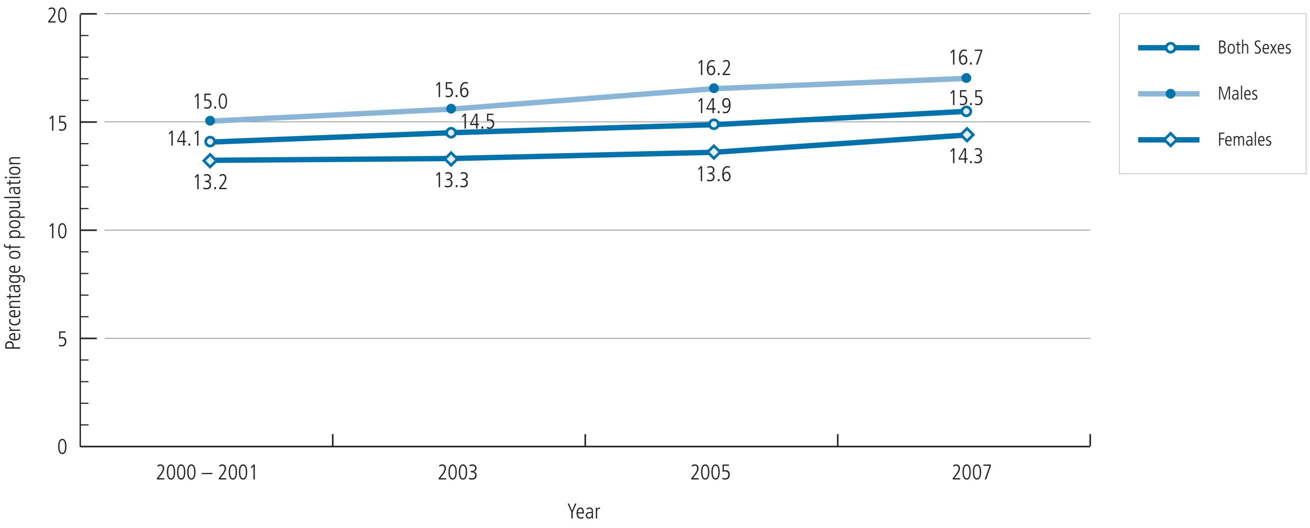
“Not stated” rate not shown.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 54 Self-Reported Body Mass Index (Obese Category)

Percentage of population who reported height and weight corresponding to a BMI in the obese category (BMI ≥30.0), by sex (age-standardized), Canada, 2000–2001, 2003, 2005 and 2007



Sources: Statistics Canada. Canadian Community Health Survey, 2000–2001, 2003, 2005 and 2007.

Notes: Includes household population 18 and older who reported their height and weight.
Data exclude pregnant women and persons measuring less than 91.4 centimetres (three feet) or greater than 210.8 centimetres (six feet, 11 inches) in height.

Results should be treated with caution because a proportion of the difference may be explained by the mode used to collect the data from the respondent (i.e., by phone or in person).

"Not stated" rate not shown.

Totals for the obese category may not equal the sum of obese classes I, II and III in the graph *Self-reported body mass index (all categories)* due to rounding.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Results: In 2007, 45.8% of Canadians reported a height and weight corresponding to a BMI in the normal weight category (as shown in the first graph on BMI, page 71). More females (4.4%) than males (1.3%) reported a height and weight corresponding to a BMI in the underweight category. More males than females reported a height and weight corresponding to a BMI in the overweight category (38.6% and 24.2%, respectively) and obese class I category (12.9% and 9.3%, respectively). Females were more likely than males to be in the highest classes of obesity, with 3.3% of females compared to 2.6% of males reporting a height and weight corresponding to a BMI in obese class II, and 1.8% of females compared to 1.2% of males reporting a height and weight corresponding to a BMI in obese class III.

As shown in the trend data presented on page 72, 31.5% of Canadians overall reported a height and weight corresponding to a BMI in the overweight category, which is relatively unchanged from 2000–2001. However, from 2005 to 2007, the rate dropped from 40.3% to 38.6% for males and 32.5% to 31.5% for both sexes combined.

Also in 2007, 15.5% of Canadians reported a height and weight corresponding to a BMI in the obese categories (as shown in the trend data presented on this page), an increase from 14.1% in 2000–2001. The male obesity rate increased from 15.0% in 2000–2001 to 16.7% in 2007, and the female obesity rate increased from 13.2% in 2000–2001 to 14.3% in 2007.

35. Self-reported physical activity

Relevance: The Accords underscored the need for coordinated approaches to deal with issues such as obesity, to promote physical fitness and to improve public health. Health Ministers were directed to work on healthy living strategies and other initiatives to reduce disparities in health status. Sedentary lifestyles are often associated with obesity and heart disease; therefore, many health promotion activities concern the promotion of active lifestyles. The indicator *Self-reported physical activity* helps assess the effectiveness of targeted health promotion activities to prevent and control disease.

Description: This indicator measures the percentage of the population aged 12 years and older who reported themselves as being either "physically active" or "physically inactive."

Advisory to Readers: The "physically active" category included those people reporting either active or moderately active levels of physical activity. Energy expenditure (EE) is calculated using the frequency and duration per session of the physical activity, as well as the metabolic equivalent (MET) value of the activity. MET is a value of metabolic energy cost expressed as a multiple of the resting metabolic rate. Persons whose total EE (based on reported frequency and durations of the various physical activity indicators) was between 1.5 and 2.9 kcal/kg/day were considered "moderately active," while those with total EE that was 3.0 kcal/kg/day or over were considered "active." Persons whose total EE was less than 1.5 kcal/kg/day were considered "inactive."[38]

This indicator only captures activity levels in *leisure* time.

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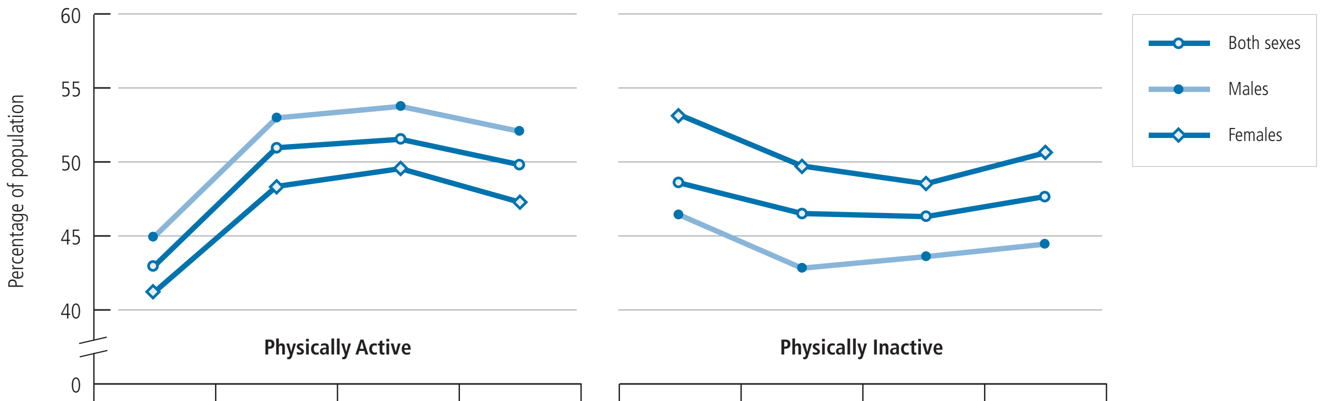
[38] A full explanation of the derivation of the Physical Activity Index is available at: http://www.statcan.ca/english/sdds/document/3226_D2_T9_V3_E.pdf.

Figure 55 Self-Reported Physical Activity

Percentage of population reporting being physically active and physically inactive, by sex (age-standardized), Canada, 2000–2001, 2003, 2005 and 2007



	Physically Active				Physically Inactive			
	2000–2001	**2003**	**2005**	**2007**	**2000–2001**	**2003**	**2005**	**2007**
Both sexes	43.0	51.0	51.6	49.7	48.6	46.4	46.2	47.6
Male	45.0	53.8	53.8	52.1	43.8	42.9	43.6	44.5
Female	41.2	48.3	49.5	47.3	53.1	49.6	48.5	50.6

Year Year

Sources: Statistics Canada. Canadian Community Health Survey, 2000–2001, 2003, 2005 and 2007.

Notes: Results should be treated with caution as there is variation in the number of non-respondents.

Results should be treated with caution because a proportion of the difference may be explained by the mode used to collect data from the respondent (i.e., by phone or in person).

Includes household population aged 12 and older reporting level of physical activity, based on their responses to questions about frequency, duration and intensity of their leisure-time physical activity.

"Physically active" includes individuals reporting either active or moderately active levels of physical activity. "Physically inactive" includes those reporting a physical activity level of inactive.

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Results: In 2007, 49.7% of Canadians reported being active or moderately active, an increase from 43.0% in 2000–2001, but a decrease from 51.6% in 2005. This difference is observed for males, females and both sexes combined. Males continued to report higher rates (52.1%) of active or moderately active physical activity levels in 2007 compared to females (47.3%).

36. Self-reported teenage smoking rates

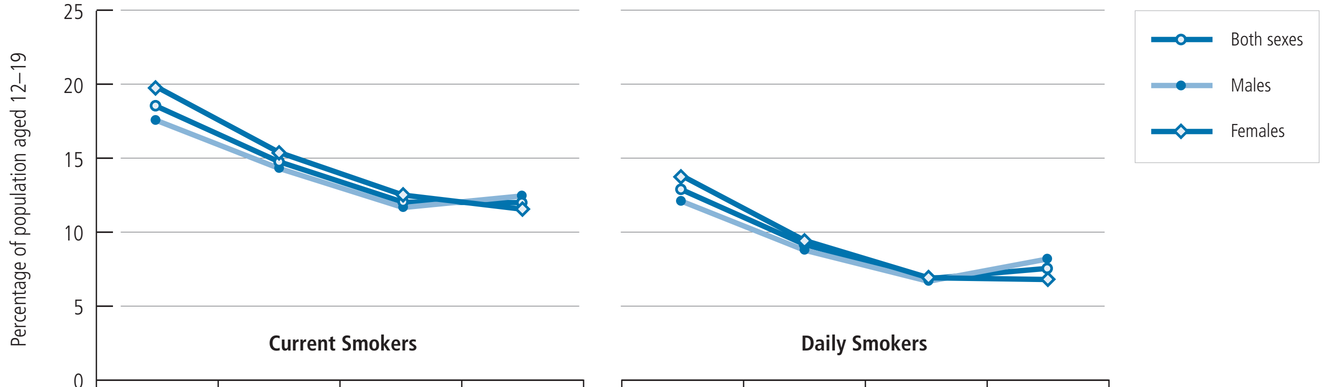
Relevance: Smoking is a risk factor in many diseases and smoking cessation can occur as a result of health promotion and education. The indicator *Self-reported teenage smoking rates* is an important measure of the prevalence of teenaged smoking in Canada and the effectiveness of health promotion initiatives that target this behaviour.

Description: This indicator measures the percentage of the population aged 12 to 19 years (inclusive) who, when interviewed, reported they were current smokers, and the percentage who reported they were daily smokers at the time of the interview.

Advisory to Readers: Current smokers included daily and occasional smokers. Occasional smokers are individuals who do not smoke daily.

Figure 56 Self-Reported Teenage Smoking Rates

Percentage of population aged 12 to 19 years reporting they are
current and daily smokers, by sex, Canada, 2000–2001, 2003, 2005 and 2007



	Current Smokers				Daily Smokers			
	2000–2001	2003	2005	2007	2000–2001	2003	2005	2007
Both sexes	18.7	14.8	12.1	12.0	12.9	9.1	6.9	7.5
Male	17.6	14.4	11.9	12.4	12.1	8.9	6.8	8.1
Female	19.8	15.2	12.3	11.5	13.6	9.3	7.0	6.9

Year Year

Sources: Statistics Canada. Canadian Community Health Survey, 2000–2001, 2003, 2005 and 2007.

Notes: Current smokers include daily smokers and occasional smokers.

For additional exclusions/limitations, see Annex 3.

Results: In 2007, 7.5% of Canadian teenagers reported being daily smokers, a decrease from 12.9% in 2000–2001. Other observed decreases were for males (from 12.1% in 2000–2001 to 8.1% in 2007) and females (from 13.6% in 2000–2001 to 6.9% in 2007). Among current smokers, rates have declined to 12.0% in 2007 from 18.7% in 2000–2001. Also in 2000–2001, a difference was observed between the male and female rates reported for current smokers (the female rate experienced a larger decrease from 2000–2001 to 2007 than the male rate).

37. Self-reported immunization for influenza, aged 65 plus ("Flu Shot")

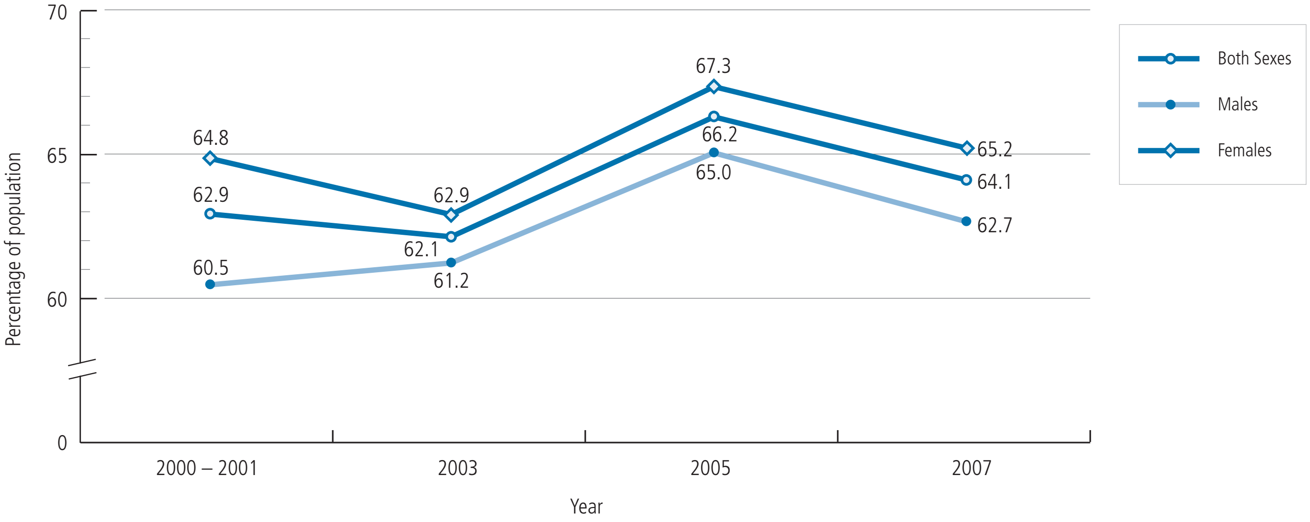
Relevance: The 2003 Health Accord recognized that immunization is a key intervention for disease prevention and directed First Ministers to pursue a national immunization strategy. Such a strategy can be effective in reducing the spread of influenza and can act to reduce emergency department visits during flu season, freeing access for patients with other conditions. The indicator *Self-reported immunization for influenza, aged 65 plus* is an important measure of the success of immunization in at-risk populations such as seniors.

Description: This indicator measures the percentage of the adult population aged 65 and older who reported that they had received a flu shot in the 12 months prior to being surveyed.

Data for this indicator exclude residents of institutions.

Figure 57 Self-Reported Influenza Immunization

Percentage of population aged 65 and older who report being immunized less than one year ago, by sex (age-standardized), Canada, 2000–2001, 2003, 2005 and 2007



Sources: Statistics Canada. Canadian Community Health Survey, 2000–2001, 2003, 2005 and 2007.

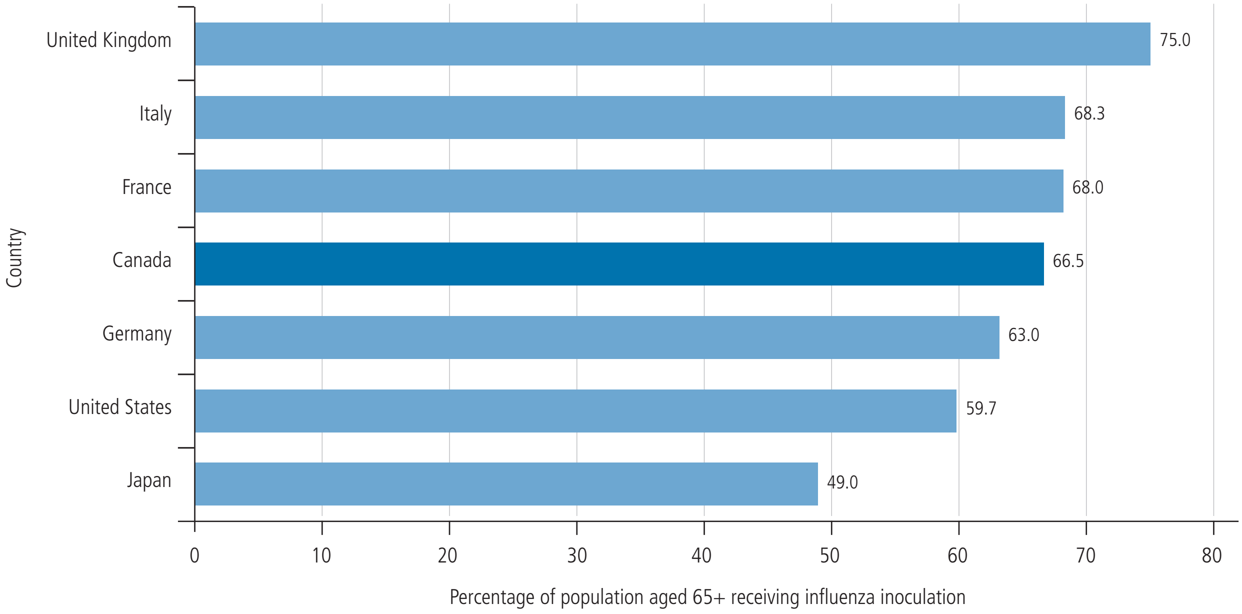
Notes: Includes household population aged 65 and older reporting when they had their last influenza immunization ("Flu Shot").

Age-standardized to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Figure 58 Influenza Immunization

Percentage of population aged 65 and older having been immunized during the past 12 months, both sexes, selected countries, 2005



Source: Organisation for Economic Co-operation and Development. *Health Data, 2008*.

Notes: Data are not comparable to Canadian trend data for the indicator, *Self-reported Influenza Immunization, aged 65 plus*, because OECD data are not age-standardised, while the Canadian indicator is standardised to the 1991 Canadian population.

For additional exclusions/limitations, see Annex 3.

Results: In 2007, 64.1% of seniors aged 65 and older reported having received a flu shot in the 12 months prior to being surveyed, a decrease from the 66.2% reported in 2005.

Organisation for Economic Co-operation and Development (OECD) data are not age-standardized while Canadian data (presented in the graph, *Self-Reported Influenza Immunization*) are age-standardized to the 1991 Canadian population. Thus, data are not directly comparable between OECD and Canadian graphs.

Among G7 countries, immunization among seniors appears to be higher in the United Kingdom, France and Italy than in Canada. In 2005, Canada had the fourth highest percentage (66.5%) of seniors aged 65 and older who reported having been immunized against influenza in the 12 months prior to being surveyed. The United Kingdom reported the highest percentage (75.0%) of individuals aged 65 and older who received a flu shot in the 12 months prior to being surveyed.

MEASURING PERFORMANCE

FIRST NATIONS AND INUIT

Measuring Performance—First Nations and Inuit

This section provides the most current information available on selected indicators pertaining to First Nations living on-reserve and recognized Inuit. It should be noted, though, that there may be important differences between population groups or data sources. For example, First Nations and Inuit tend to be younger than the overall Canadian population. In particular, the proportion of the First Nations and Inuit populations under the age of 25 is 50.1% and 56.0%, respectively, while the proportion of the overall Canadian population under the age of 25 is 31.3%.[39]

Regarding data sources, there may be important differences in the way data are collected. For example, diabetes data that are reported for the overall Canadian population come from the National Diabetes Surveillance System (NDSS), which uses administrative health care data relating to diabetes from regionally distributed surveillance systems. The diabetes data reported for First Nations living on-reserve are based on self-reported information. Because of these differences, caution should be exercised when making direct comparisons between First Nations living on-reserve, Inuit and the overall Canadian population.

The 2004 edition of *Healthy Canadians* relied on the 2001 Aboriginal Peoples Survey (APS) to report on First Nations and Inuit health. *Healthy Canadians 2006* used First Nations data from the 2002–2003 First Nations Regional Longitudinal Health Survey (RHS), which was designed to reflect cultural perspectives of First Nations on-reserve. *Healthy Canadians 2008* also uses data from the 2002–2003 RHS for six First Nations indicators. The Inuit data in this report come from two research papers that use a new approach designed to generate Inuit-specific data by matching Census information and vital statistics to the geographic locations made up of predominately Inuit inhabitants (such as Nunavut).

Since the various editions of *Healthy Canadians* have used different data sources to report on First Nations, it is not possible or recommended to describe trends over time in the First Nations on-reserve population. Limitations associated with presented data are stated in the notes beneath each graph, where possible, as well as in Annex 3. Part IV, *Health Information—Challenges and Next Steps*, provides an overview of some of the challenges related to data collection in Aboriginal populations, in particular in First Nations populations living on-reserve.

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[39] Statistics Canada. 2006 Census. *Aboriginal Peoples Highlight Tables*. Population by age groups, sex and Aboriginal identity groups, 2006 counts for Canada, provinces and territories—20% sample data (table). Ottawa: Statistics Canada; 2008. Catalogue No. 97-558-XWE2006002.
Available from: http://www12.statcan.gc.ca/english/census06/data/highlights/Aboriginal/pages/Page.cfm?Lang=E&Geo=PR&Code=01&Table=2&Data=Count&Sex=1&Abor=1&StartRec=1&Sort=2&Display=Page&CSDFilter=250 .

1. Self-reported Pap smear

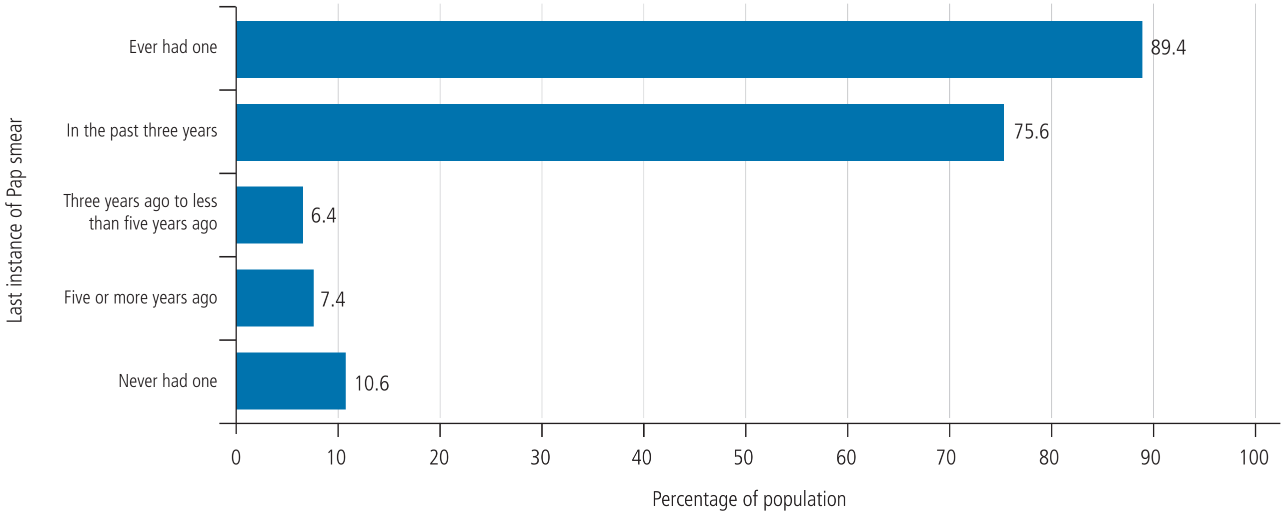
Relevance: The Accords recognized the importance of health promotion and wellness to prevent and control disease. The 2003 Health Accord recognized that the core building blocks of effective primary health care include improved continuity and coordination of care, and early detection and action. The indicator *Self-reported Pap smear* is an important measure of the success of early detection initiatives to combat serious illness.

Description: This indicator measures the proportion of First Nations females aged 18 years and over and living on-reserve who reported having at least one Pap smear.

Advisory to Readers: The Pap smear is a recognized measure for the prevention and early treatment of cervical cancer.

Figure 59 Self-Reported Pap Smear

Percentage of the female population reporting having a Pap smear, by last instance, First Nations adults living on-reserve, 2002–2003



Source: First Nations Information Governance Committee. First Nations Regional Longitudinal Health Survey, 2002–2003; Results for Adults, Youth and Children Living in First Nations Communities. Assembly of First Nations, November 2005.

Note: For additional exclusions/limitations, see Annex 3.

Results: In 2002–2003, 89.4% of First Nations females aged 18 years and over and living on-reserve reported ever having a Pap smear. The majority (75.6%) of First Nations females aged 18 years and over and living on-reserve reported having at least one Pap smear in the past three years. In addition, 6.4% reported having their last Pap smear between three and five years ago, and 7.4% reported having one five or more years ago.

2. Self-reported mammography

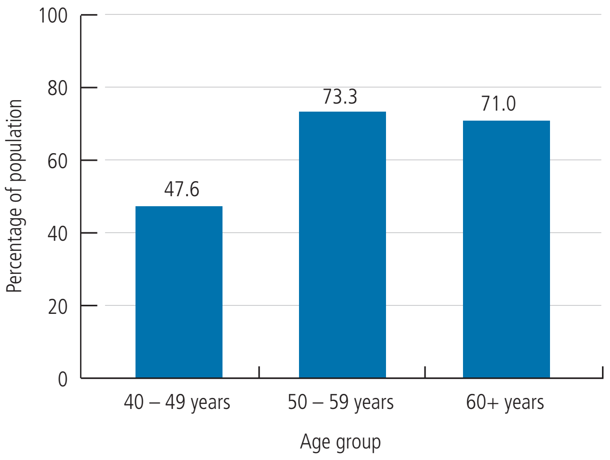
Relevance: While the Accords recognized the importance of health promotion and wellness to prevent and control disease, the 2003 Health Accord recognized that effective primary health care includes improved continuity and coordination of care, as well as early detection and action. The indicator *Self-reported mammography* is another important measure of the success of early detection initiatives to combat serious illness.

Description: This indicator measures the proportion of First Nations females aged 18 years and over and living on-reserve who reported having at least one mammogram in their lifetime.

Advisory to Readers: Mammography is a screening program for breast cancer, targeted to women between the ages of 50 and 69 years with no prior diagnosis of breast cancer.

Figure 60 Self-Reported Mammography

Percentage of the female population aged 40 and older reporting ever having a mammogram in their lifetime, by selected age group, First Nations adults living on-reserve, 2002–2003



Source: First Nations Information Governance Committee. First Nations Regional Longitudinal Health Survey, 2002–2003; Results for Adults, Youth and Children Living in First Nations Communities. Assembly of First Nations, November 2005.

Note: For additional exclusions/limitations, see Annex 3.

Results: In 2002–2003, 47.6% of First Nations females aged 40 to 49 years and living on-reserve reported at least one mammogram in their lifetime. In addition, 73.3% of First Nations females aged 50 to 59 years and living on-reserve, and 71.0% of First Nations adult females aged 60 years and over and living on-reserve reported having had a mammogram in their lifetime.

3. Prevalence of self-reported diabetes

Relevance: The Accords recognized the importance of health promotion and disease prevention, directing Health Ministers to work on healthy living strategies and initiatives to reduce disparities in health status. Since diabetes is often associated with obesity and poor diets, trends in the data for this indicator can help assess the effectiveness of health promotion and disease control initiatives.

Description: This indicator measures the percentage of First Nations adults aged 18 years and older and living on-reserve who reported they had been told by a health care professional that they have one or more types of diabetes.

Advisory to Readers: Type 1 diabetes, previously known as insulin-dependent diabetes, typically occurs in childhood or adolescence and requires multiple daily injections for survival. Insulin treatment begins immediately after diagnosis.

Type 2 diabetes, previously known as non-insulin dependent diabetes, usually begins after age 30.

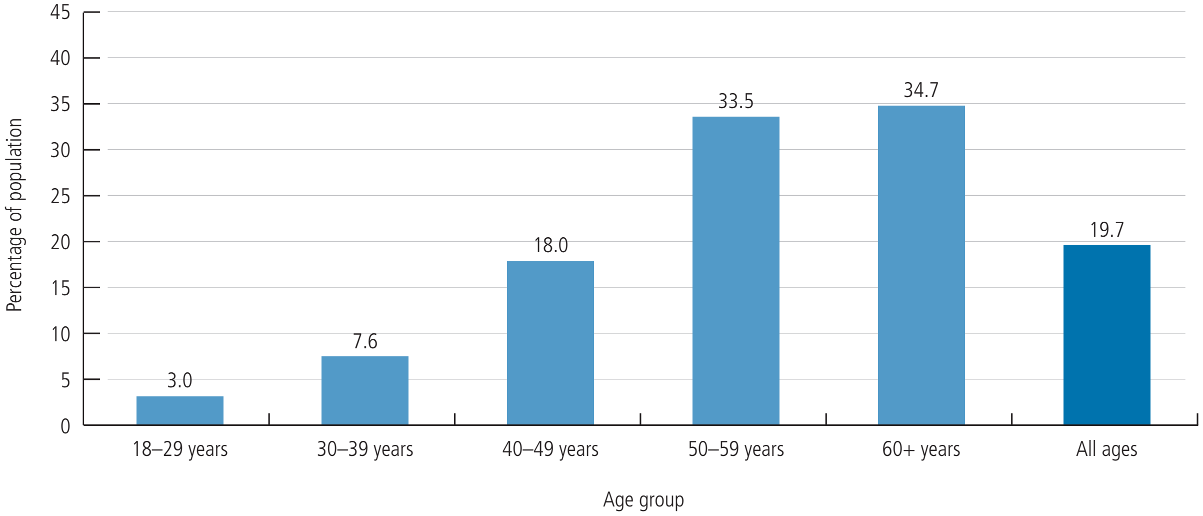
Gestational diabetes refers to diabetes that occurs in women during pregnancy. Women generally stop being diabetic after the birth of their baby.

Pre-diabetic state, sometimes referred to as “borderline” diabetes, includes impaired fasting glucose and impaired glucose tolerance. Both are determined by tests that reveal high blood glucose levels that are not high enough to be diagnosed as type 1 or type 2 diabetes.

The age noted for the prevalence of diabetes in the general Canadian population is 20 years and older, compared to 18 years and older for First Nations individuals living on-reserve. In addition, because different methodologies were used to obtain prevalence data, comparisons between these population groups should not be made.

Figure 61 Prevalence of Self-Reported Diabetes (any type)

Percentage of population reporting having diabetes, by selected age group and all ages, First Nations adults living on-reserve, 2002–2003



Source: First Nations Information Governance Committee. First Nations Regional Longitudinal Health Survey, 2002–2003; Results for Adults, Youth and Children Living in First Nations Communities. Assembly of First Nations, November 2005.

Notes: Data for this indicator are based on self-reported information, whereas data for the overall Canadian population are based on administrative records. In addition, the age noted for the prevalence of diabetes among the overall Canadian population is 20 years and older, compared to 18 years and older for First Nations individuals living on-reserve. Thus, direct comparisons should not be made between these two population groups.

For additional exclusions/limitations, see Annex 3.

Results: In 2002–2003, 19.7% of First Nations adults living on-reserve reported having been told by a health care professional that they have diabetes. The prevalence of diabetes is lowest among 18- to 29-year-olds (3.0%) and doubles each decade to a high of about one in three adults among those 50 years and older.

Diabetes has been identified as an important health problem in the First Nations on-reserve population and continues to be a challenge.

4. Self-reported body mass index

Relevance: First Ministers directed Health Ministers to work on healthy living strategies and other initiatives to reduce disparities in health status. Physical activity, nutrition and diet can have an impact on obesity, which is a known risk factor for diabetes and heart disease. The indicator *Self-reported body mass index* is an important measure of the effectiveness of health promotion initiatives to address issues such as obesity.

Description: This indicator measures the percentage of First Nations adults aged 18 years and over and living on-reserve who reported a height and weight corresponding to a body mass index (BMI) in specified categories ranging from underweight to obese.

Advisory to Readers: The BMI presented here is a ratio of a person's self-reported weight and height and is calculated for persons 18 years of age and over, excluding pregnant women. Although BMI is not a direct measure of body fat, it is a widely investigated and useful indicator of the health risks associated with being underweight and overweight. First Nations Regional Longitudinal Health Survey (RHS) data on body mass are classified according to the *Canadian Guidelines for Body Weight Classification in Adults*.[40] These guidelines categorize BMI into four groups: underweight (BMI <18.5), normal weight (BMI 18.5–24.9), overweight (BMI 25.0–29.9) and obese (BMI ≥30.0).

Statistics Canada has pointed out that self-reported height and weight tend to yield underestimates of the prevalence of overweight and obese individuals in the population.[41] BMI may overestimate the health risks for young adults who have not reached full growth and for adults who are very lean, muscular or physically fit. BMI does not take bone density into account. BMI may not accurately assess the health risks for adults over 65 and members of certain ethnic and racial groups. BMI measures body weight at one point in time and may not capture the risk for people whose weight has changed. (A sudden increase or decrease in weight may be a sign of additional health problems).

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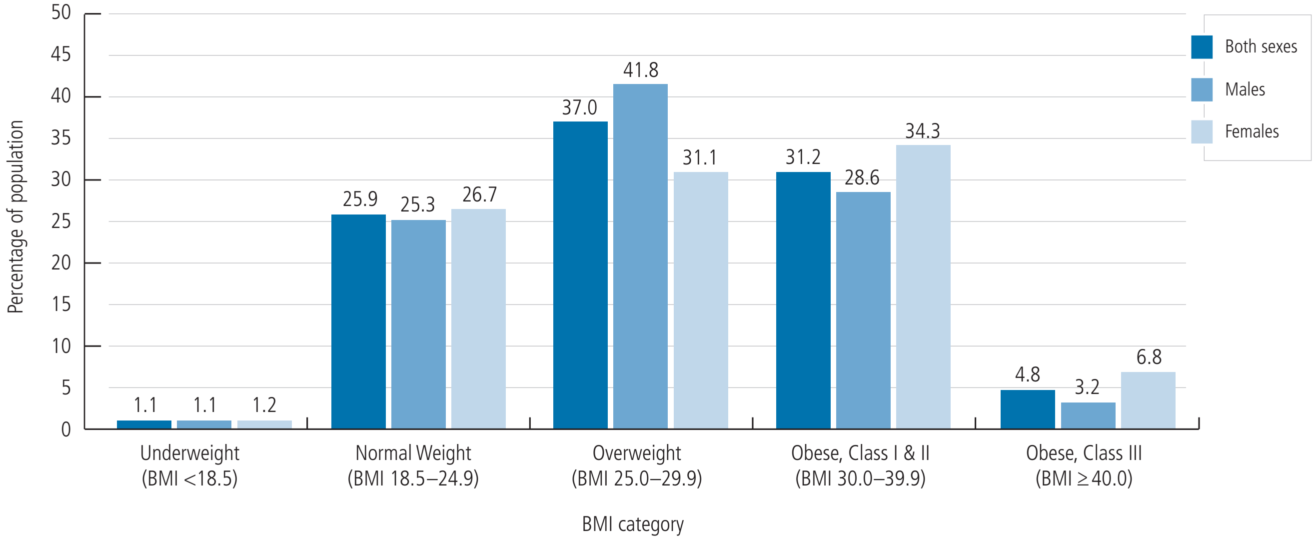
[40] Health Canada. *Canadian Guidelines for Body Weight Classification in Adults—Quick Reference Tool for Professionals*. Ottawa: Health Canada; 2003. Catalogue No. H49-179/2003-1E. Available from: http://www.hc-sc.gc.ca/fn-an/nutrition/weights-poids/guide-ld-adult/cg_quick_ref-ldc_rapide_ref-eng.php.

[41] Tjepkema M. *Nutrition: Findings from the Canadian Community Health Survey—Adult obesity in Canada: Measured height and weight*. Ottawa: Statistics Canada; 2005. Catalogue No. 82-620-MWE2005001 [cited 2008 Oct 28]. Available from: http://www.statcan.ca/english/research/82-620-MIE/2005001/pdf/aobesity.pdf.

Figure 62 Self-Reported Body Mass Index

Distribution of BMI by sex, First Nations adults living on-reserve, 2002–2003



Source: First Nations Information Governance Committee. First Nations Regional Longitudinal Health Survey, 2002– 2003; Results for Adults, Youth and Children Living in First Nations Communities. Assembly of First Nations, November 2005.

Notes: Data are based on self-reported information and not actual physical measures. Thus, data may not represent the true prevalence of overweight and obese within the First Nations population. Results should be treated with caution.

For additional exclusions/limitations, see Annex 3.

Results: In 2002–2003, 25.9% of First Nations adults aged 18 years and over and living on-reserve reported a height and weight corresponding to a BMI in the normal weight category, and 1.1% reported a height and weight corresponding to a BMI in the underweight category. Another 37.0% of First Nations adults reported a height and weight corresponding to a BMI in the overweight category. The remaining 36.0% have a height and weight that put them in the obese category. A closer look at those in the obese category shows that almost one third (31.2%) of First Nations adults living on-reserve reported a height and weight corresponding to a BMI in obese classes I and II (BMI 30.0–39.9). Another 4.8% reported a height and weight corresponding to a BMI in obese class III (BMI 40.0 and greater).

Overall, First Nations males aged 18 years and over and living on-reserve (41.8%) are more likely than First Nations females aged 18 years and over and living on-reserve (31.1%) to report a height and weight corresponding to a BMI in the overweight category. However, females (41.1%) are more likely than males (31.8%) to report a height and weight corresponding to a BMI in the obese category (classes I, II and III). In the overall Canadian population, males are more likely than females to report a height and weight corresponding to a BMI in the overweight and obese class I categories.

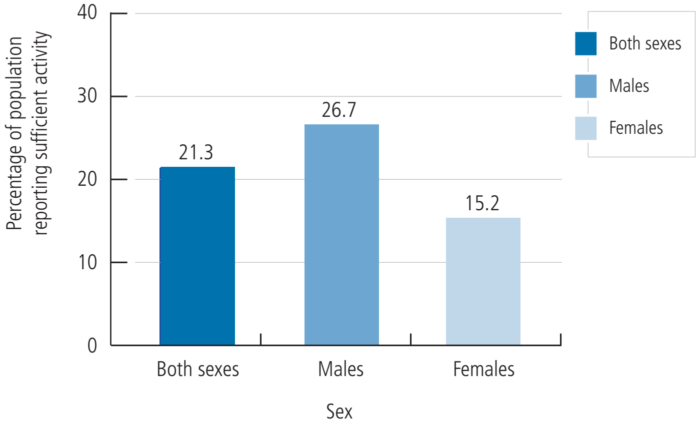
5. Self-reported level of physical activity

Relevance: The Accords highlighted the need for coordination to promote physical fitness and to improve public health. Because sedentary lifestyles are often associated with obesity and heart disease, many health promotion activities focus on the promotion of active lifestyles. The indicator *Self-reported level of physical activity* helps assess the effectiveness of targeted health promotion activities to prevent and control disease.

Description: This indicator measures the percentage of First Nations adults aged 18 years and over and living on-reserve who engaged in "sufficient" physical activity. The 2002–2003 First Nations Regional Longitudinal Health Survey (RHS) defined "sufficient" physical activity as reporting at least 30 minutes of moderate to vigorous activity for four or more days of the week. Vigorous activity was defined as activity that results in an increase in heart rate and breathing.

Figure 63 **Self-Reported Level of Physical Activity**

Percentage of population reporting sufficient activity, by sex, First Nations adults living on-reserve, 2002–2003



Source: First Nations Information Governance Committee. First Nations Regional Longitudinal Health Survey, 2002– 2003; Results for Adults, Youth and Children Living in First Nations Communities. Assembly of First Nations, November 2005.

Notes: In the RHS, the criterion for sufficient activity was defined as reporting at least 30 minutes of moderate to vigorous activity (i.e., that results in an increase in heart rate and breathing) for four or more days of the week.

Data are based on self-reported information. Thus, data may not represent the true levels of physical activity within the First Nations population. Results should be treated with caution.

For additional exclusions/limitations, see Annex 3.

Results: Overall, 21.3% of First Nations adults aged 18 years and over and living on-reserve reported engaging in sufficient physical activity in 2002–2003. A greater proportion of First Nations adult males living on-reserve (26.7%), compared to First Nations adult females living on-reserve (15.2%), reported sufficient activity.

6. Prevalence of self-reported depression

Relevance: The 2003 Health Accord recognized that effective primary health care includes early disease detection and action. The indicator *Self-reported prevalence of depression* is an important measure of the success of initiatives to combat mental illness.

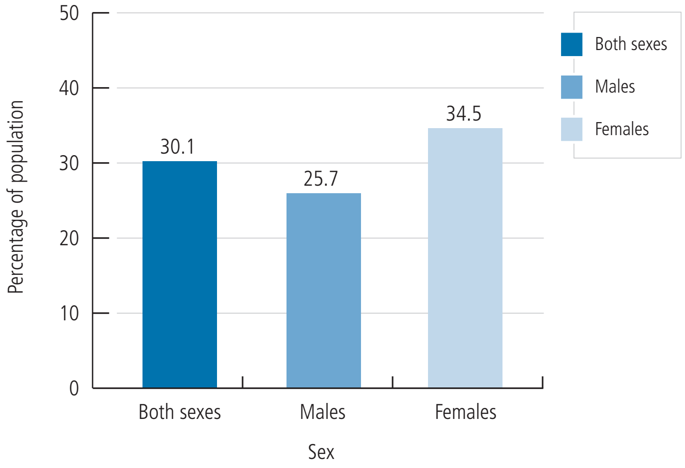
Description: This indicator measures the prevalence of depression by age in First Nations adults aged 18 years and over and living on-reserve. In the 2002–2003 First Nations Regional Longitudinal Health Survey (RHS), the prevalence of depression is defined by those answering "yes" to the question, "Was there ever a time when you felt sad, blue or depressed for two weeks or more in a row?"

Advisory to Readers: Prevalence rates of mental health issues help assess their burden on society and also help determine requirements for health human resources and treatment. Adequate health human resources, treatment and meaningful social supports are some of the elements needed to successfully treat mental health issues such as depression.

The question used to determine prevalence of depression has not been empirically validated. Caution should therefore be exercised in the interpretation of data on this indicator.

Figure 64 Prevalence of Self-Reported Depression

Percentage of population reporting ever feeling sad, blue or depressed for two weeks or more in a row in the past 12 months, by sex, First Nations adults living on-reserve, 2002–2003



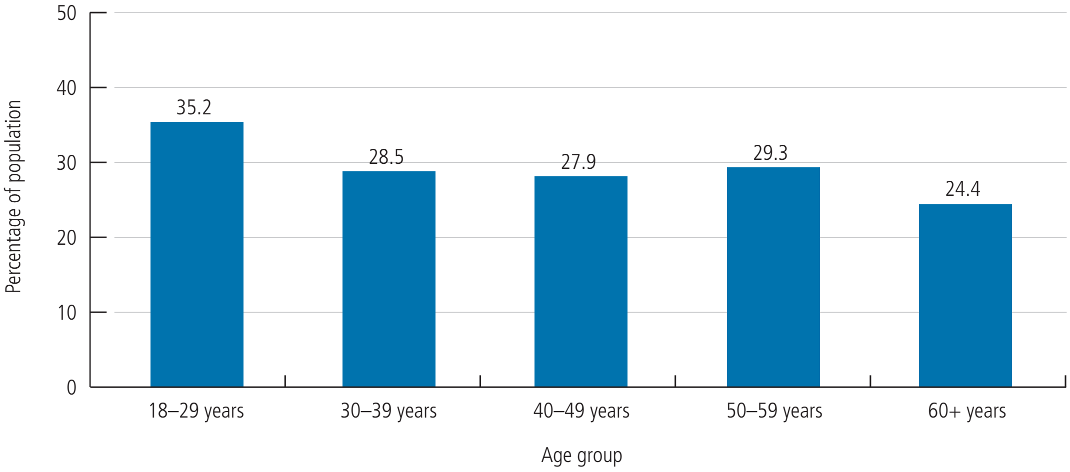
Source: First Nations Information Governance Committee. First Nations Regional Longitudinal Health Survey, 2002–2003; Results for Adults, Youth and Children Living in First Nations Communities. Assembly of First Nations, November 2005.

Notes: The question asked of respondents has not been empirically validated as a measure of depression. Caution should be exercised in the interpretation of these data.

For additional exclusions/limitations, see Annex 3.

Figure 65 Prevalence of Self-Reported Depression

Percentage of population reporting ever feeling sad, blue or depressed for two weeks or more in a row in the past 12 months, by selected age group, First Nations adults living on-reserve, 2002–2003



Source: First Nations Information Governance Committee. First Nations Regional Longitudinal Health Survey, 2002–2003; Results for Adults, Youth and Children Living in First Nations Communities. Assembly of First Nations, November 2005.

Notes: The question asked of respondents has not been empirically validated as a measure of depression. Caution should be exercised in the interpretation of these data.

For additional exclusions/limitations, see Annex 3.

Results: Overall, 30.1% of First Nations adults living on-reserve and aged 18 years and over have experienced a time when they felt sad, blue or depressed for two weeks or more in a row. First Nations females (34.5%) are more likely than First Nations males (25.7%) to report that they experienced a time when they felt sad, blue or depressed for two weeks or more in a row. The prevalence rate of depression was highest among First Nations adults aged 18 to 29 years (35.2%) and was lowest among First Nations adults aged 60 years and over (24.4%).

7. Life expectancy at birth

Relevance: The indicator *Life expectancy at birth* correlates with other health status measures such as perceived health and can be considered an important measure of health status, reflecting the relative influence of the underlying determinants of health.

Description: This indicator is a projected average age of death for infants born in a given year in Inuit-inhabited regions.

Advisory to Readers: The study used as the basis for indicator data included a total of 54 Inuit-inhabited communities where at least 33% of the residents self-identified as Inuit, based on the self-identification question of the 2001 Census of Canada.[42] In terms of population, 20% of the residents of the 54 communities were non-Inuit (though there was some regional variation), and 80% were Inuit. Life expectancy in the Inuit-inhabited areas of the Inuvialuit region (Northwest Territories), Nunavut, Nunatsiavut (Labrador) and Nunavik (Québec) was estimated using vital statistics death records for 1989 through 2003 and census population counts for 1991, 1996 and 2001.

The health and socioeconomic status of the non-Inuit population can potentially mask the severity of some illnesses among the Inuit. This may affect overall figures for Inuit. As the study authors have noted, results are for regions and not for a particular group of people.

Life expectancy does not refer to the number of years a particular newborn (or a person who is currently 65 years old) can actually expect to live. This is because mortality rates are averages for the entire population. Historically, mortality rates in Canada have been falling, and the mortality rates individuals are likely to face as they age may be lower. In addition, numerous factors or determinants of health (income and social status, social supports, education, employment and working conditions, health services, biology and genetic endowment, child development, physical and social environment, and personal health practices and coping skills) can influence one's longevity and quality of life.[43] For example, an individual who is a long-time smoker may have a life expectancy that is different from someone who does not smoke.

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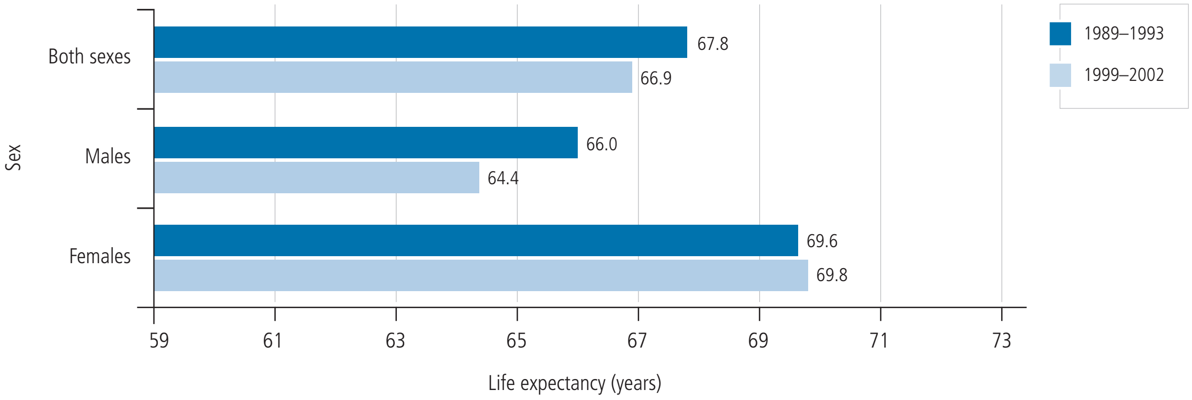
[42] Wilkins R, Uppal S, Finès P, Senécal S, Guimond E, Dion R. Life expectancy in the Inuit-inhabited areas of Canada, 1989 to 2003. *Health Reports*. 2008;19(1):1–13. Catalogue No. 82-003-X. Available from: http://www.statcan.ca/english/freepub/82-003-XIE/2008001/article/10463-en.pdf.

[43] Details on the determinants of health are available at: http://www.phac-aspc.gc.ca/ph-sp/determinants/index-eng.php.

Figure 66 Life Expectancy

Life expectancy at birth in the Inuit-inhabited areas of Canada, by sex, 1989-1993 and 1999-2002



Source: Wilkins R, Uppal S, Finès P, Senécal S, Guimond E, Dion R. Life expectancy in the Inuit-inhabited areas of Canada, 1989 to 2003. Health Reports. 2008;19(1):1–13. Catalogue No. 82-003-X.

Notes: This indicator represents Inuit-inhabited areas and 20% of the study population was non-Inuit. The age structure of Inuit differs from that of the overall Canadian population. Direct comparisons across distinct population groups should be limited.

Results: During the period from 1999 to 2002, Wilkins et al. have estimated that life expectancy at birth in Inuit-inhabited areas was 66.9 years.[44] For the period from 1989 to 1993, they estimated that life expectancy in these areas was 67.8 years.

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[44] Wilkins R, Uppal S, Finès P, Senécal S, Guimond E, Dion R. Life expectancy in the Inuit-inhabited areas of Canada, 1989 to 2003. *Health Reports*. 2008;19(1): 1–13. Catalogue No. 82-003-X. Available from: http://www.statcan.ca/english/freepub/82-003-XIE/2008001/article/10463-en.pdf.

8. Suicide rate

Relevance: The 2003 Health Accord asked Health Ministers to consider the development of a health status and wellness indicator on the issue of potential years of life lost. The indicator *Suicide rate* responds in part to this request as suicide is linked to the concept of years of life lost.

Description: This indicator measures the number of deaths due to suicide for a designated period of time in Inuit-inhabited regions.

Advisory to Readers: The suicide rate was calculated using the geographic coding methodology developed by Wilkins et al.[45] This methodology included a total of 54 Inuit-inhabited communities where at least 33% of the residents self-identified as Inuit, based on the self-identification question of the 2001 Census of Canada. In terms of population, 20% of the residents of the 54 communities were non-Inuit (though there was some regional variation), and 80% were Inuit. Suicide statistics for the 54 Inuit-inhabited communities covered the period from 1989 to 2003 and were calculated according to the method used by Penney et al.[46]

The inclusion of non-Inuit in the study population can potentially mask the severity of the suicide rate among the Inuit, affecting overall figures. As the study authors have noted, results are for regions and not for a particular group of people.

Figure 67 Suicide

Age-standardized suicide rates in the Inuit-inhabited areas of Canada, by region, 1999–2003

	Rates per 100,000 population
Nunatsiavut (Labrador)	147.7
Nunavik (Québec)	159.8
Nunavut	95.6
Inuvialuit (N.W.T.)	69.9
All regions	112.3

Source: Penney C, Senécal S, Guimond E, Bobet E, Uppal S. Suicide in Inuit Nunaat: An analysis of suicide rates and the effect of community-level factors. Position paper for the 5th Northern Research Forum Open Assembly. 2008 Sep 24–27; Alaska.

Notes: This indicator represents Inuit-inhabited areas and 20% of the study population was non-Inuit. The age structure of Inuit differs from that of the overall Canadian population. Direct comparisons across distinct population groups should be limited.

Age-standardized to the 2001 Inuit population.

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[45] Wilkins R, Uppal S, Finès P, Senécal S, Guimond E, Dion R. Life expectancy in the Inuit-inhabited areas of Canada, 1989 to 2003. *Health Reports*. 2008;19(1):1–13. Catalogue No. 82-003-X. Available from: http://www.statcan.ca/english/freepub/82-003-XIE/2008001/article/10463-en.pdf.

[46] Penney C, Senécal S, Guimond E, Bobet E, Uppal S. Suicide in Inuit Nunaat: An analysis of suicide rates and the effect of community-level factors. Position paper for the 5th Northern Research Forum Open Assembly; 2008 Sep 24–27; Alaska. Available from: http://old.nrf.is/Open%20Meetings/Anchorage/Position%20Papers/Penney_Sen%C3%A9cal_Guimond_Bobet_and_Uppal_5thNRF_position_paper_session2.pdf.

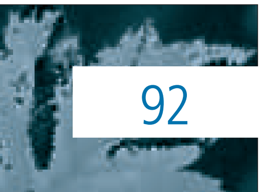
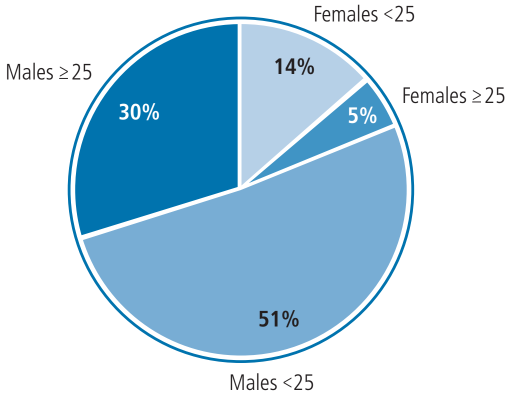


Figure 68 **Suicide**

Suicide rates in the Inuit-inhabited areas of Canada, by sex and age group, 1989-2003



Source: Penney C, Senécal S, Guimond E, Bobet E, Uppal S. Suicide in Inuit Nunaat: An analysis of suicide rates and the effect of community-level factors. Position paper for the 5th Northern Research Forum Open Assembly. 2008 Sep 24–27; Alaska.

Notes: This indicator represents Inuit-inhabited areas and 20% of the study population was non-Inuit. The age structure of Inuit differs from that of the overall Canadian population. Direct comparisons across distinct population groups should be limited.

Results: In the study by Penney et al., the suicide rate across all four Inuit regions from 1999 to 2003 was 112.3 per 100,000 population.[47] Suicide rates are highest in Nunavik (northern Québec), followed by Nunatsiavut (Labrador), Nunavut and the Inuvialuit region (Northwest Territories). The rate for Nunavik is higher than the average for the four Inuit regions, and also higher than for Nunavut. Penney et al. estimated that young males represent the majority of deaths due to suicide in the Inuit-inhabited areas. Over the 15-year period covered by the study, more than 80% of suicides were among males and 65% were among people under the age of 25.

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[47] Penney C, Senécal S, Guimond E, Bobet E, Uppal S. Suicide in Inuit Nunaat: An analysis of suicide rates and the effect of community-level factors. Position paper for the 5th Northern Research Forum Open Assembly. 2008 Sep 24–27; Alaska. Available from: http://old.nrf.is/Open%20Meetings/Anchorage/Position%20Papers/Penney_Sen%C3%A9cal_Guimond_Bobet_and_Uppal_5thNRF_position_paper_session2.pdf.

9. Infant mortality

Relevance: The 2000 Communiqué specifically identified infant mortality as a health status indicator. In addition, all Accords stressed the importance of developing strategies and policies that focus on the determinants of health, enhance disease prevention, improve public health and provide support for early childhood development. The indicator *Infant mortality* is not only an important measure of infant health; it also reflects the overall health of a given society.

Description: This indicator measures the number of infants in Inuit-inhabited regions who die during their first year of life for every 1,000 live born infants.

Advisory to Readers: The study used as the basis for indicator data included a total of 54 Inuit-inhabited communities where at least 33% of the residents self-identified as Inuit, based on the self-identification question of the 2001 Census of Canada.[48] Infant mortality in the Inuit-inhabited areas of the Inuvialuit region (Northwest Territories), Nunavut, Nunatsiavut (Labrador) and Nunavik (Québec) was estimated using vital statistics death records for 1989 through 2003, and census population counts for 1991, 1996 and 2001. In terms of population, 20% of the residents of the 54 communities were non-Inuit (though there was some regional variation), and 80% were Inuit.

The inclusion of non-Inuit in the study population can potentially mask the severity of infant mortality among the Inuit, affecting overall figures. As the study authors have noted, results are for regions and not for a particular group of people.

Figure 69 Infant Mortality

Infant mortality rates in the Inuit-inhabited areas of Canada, 1989–2003

	Rates per 1,000 population younger than age 1
1989–1993	25.6
1994–1998	21.9
1999–2003	18.5

Source: Wilkins R, Uppal S, Finès P, Senécal S, Guimond E, Dion R. Life expectancy in the Inuit-inhabited areas of Canada, 1989 to 2003. Health Reports. 2008;19(1):1–13. Catalogue No. 82-003-X.

Notes: This indicator represents Inuit-inhabited areas and 20% of the study population was non-Inuit. The age structure of Inuit differs from that of the Canadian population. Direct comparisons across distinct population groups should be limited.

Results: Wilkins et al.[48] found that the infant mortality rate for the Inuit-inhabited areas fell from 25.6 deaths per 1,000 population younger than age 1 in 1989–1993, to 21.9 in 1994–1998, and to 18.5 in 1999–2003. Although Inuit infant mortality has decreased over time, it remains higher than the Canadian rate.

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[48] Wilkins R, Uppal S, Finès P, Senécal S, Guimond E, Dion R. Life expectancy in the Inuit-inhabited areas of Canada, 1989 to 2003. *Health Reports*. 2008;19(1):1–13. Catalogue No. 82-003-X. Available from: http://www.statcan.ca/english/freepub/82-003-XIE/2008001/article/10463-en.pdf.

HEALTH INFORMATION
CHALLENGES AND NEXT STEPS

4.

Health Information—Challenges and Next Steps

Health information is a critical part of any modern health care system, helping stakeholders monitor changes in health status and health system performance. The Government of Canada believes that timely, coordinated and responsive health information benefits Canadians by improving the quality of life through evidence-based decision making. To this end, the federal government has made significant investments to improve data collection so the health sector can better respond to the needs of Canadians.

Since 1999, the federal government has invested more than $355 million to help modernize health information in Canada. In addition to supporting the 2003 Health Accord reporting commitments, federal investments have helped generate useful data sources (e.g., the Canadian Institute for Health Information (CIHI) Health Human Resources Databases Development Project, and National Survey of the Work and Health of Nurses; and Statistics Canada's Canadian Health Measures Survey). Other benefits include the improvement of data quality, the enhancement of national data standards and the use of data to foster greater accountability to Canadians.

Recently, Budget 2007 provided $400 million to Canada Health Infoway (CHI) to support provincial and territorial development of electronic health records (EHR) that will reduce wait times and the risk of medical errors, leading to better health outcomes. It also included a $22 million per year increase to help CIHI build on its reputation as a world leader in providing timely, accurate and comparable health information that supports improved health delivery outcomes.[49] Since 2003, CHI and CIHI have been working collaboratively on the development and maintenance of EHR standards.

While investments and progress have been made, gaps in data infrastructure and data availability continue to exist. In terms of data infrastructure, there is variation across the country that affects the capacity of provinces and territories to collect, analyze and publish data. For example, data collection tools and techniques may be different (e.g., surveys or administrative data collection instruments with dissimilar methodologies).

Aboriginal data currently lag behind data on the general Canadian population, and this may impede the federal government's ability to adequately understand and respond to Aboriginal health issues. Challenges exist in the collection and reporting of health information on Aboriginal peoples. As is also true for other groups within Canada, it is difficult to extract health data particular to Aboriginal peoples (or specifically on First Nations, Inuit or Métis) from administrative databases. For Aboriginal health reporting, this challenge is further complicated by overlapping jurisdictional responsibilities for health between federal, provincial/territorial and local governments. Data on First Nations and Inuit peoples are included in many provincial and territorial databases (e.g., vital statistics, notifiable diseases and hospital discharges), but there is no mechanism to identify Aboriginal individuals.

Regarding First Nations data, *Healthy Canadians 2008* relies on the 2002–2003 First Nations Regional Longitudinal Health Survey (RHS). The National Aboriginal Health Organization's First Nations Centre and 10 First Nations regional organizations collectively undertook the survey, which is overseen and guided by the First Nations Information Governance Committee, a standing committee of the Chiefs' Committee on Health of the Assembly of First Nations. The RHS is a First Nations initiative designed to reflect the First Nations cultural perspective.

As previously mentioned, other differences may exist between data sources. For example, diabetes data that are reported for the general population come from the National Diabetes Surveillance System (NDSS), which uses administrative health care data relating to diabetes from regionally distributed surveillance systems. However, the diabetes data reported for First

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[49] Details about Budget 2007 are available at: http://www.budget.gc.ca/2007/themes/papemhe.html.

Nations living on-reserve are based on self-reported information from the RHS. Thus, First Nations survey data are not always comparable to data on the general population.

Statistics Canada collects Aboriginal-specific health information through the Aboriginal Peoples Survey (APS), which was used for the two previous editions of *Healthy Canadians* in 2004 and 2006. The APS was useful in identifying health issues in the population, in particular for the Inuit. However, it does not reflect all Aboriginal populations in Canada, as many First Nations communities (notably in Québec) refused to participate in the survey. New APS data were not available when *Healthy Canadians 2008* went to press but will be available for future reports on Aboriginal health.

Various strategies are underway to help improve the development of Aboriginal data. Since 2001, the First Nations and Inuit Health Branch (FNIHB) has contributed over $11.7 million toward the development of the 2002–2003 RHS and continues to support it, committing $12.5 million to support infrastructure, data collection and dissemination for the 2007–2008 wave of the survey through 2011.

Most of the information in this report comes from Statistics Canada and CIHI. Information on the prevalence and incidence of diabetes in the general population comes from the Public Health Agency of Canada (PHAC), while international information comes from the Organisation for Economic Co-operation and Development (OECD). Of note, CIHI, Statistics Canada and PHAC continue to work on the improvement of their data collection systems.

Plans for the Future

The federal government is committed to ensuring that processes are in place to provide further advice on the development of additional indicators. This includes reviewing the list of 70 comparable health indicators approved by the federal, provincial and territorial Ministers of Health to determine if they are still relevant to Canadians. The federal government will also continue to interpret indicator data in relation to Accord commitments. In addition, an evaluation is planned for 2009 to determine whether *Healthy Canadians—A Federal Report on Comparable Health Indicators 2008* achieved what it was expected to achieve—in particular, providing information to Canadians on health system performance and health outcomes.

ANNEXES

Annex 1: List of Featured Indicators

Healthy Canadians 2008 includes information on the 18 core indicators that were approved by all federal, provincial and territorial jurisdictions in 2004. For this edition, an additional 19 indicators were identified from the list of 70 that were developed in consultation with stakeholders to provide a better picture of progress under the Health Accords. While most of the indicators have been updated for 2008, information was not available for several: *Health adjusted life expectancy, Patient satisfaction with community-based care,* and *Patient satisfaction with telephone health line or tele-health services*.

The table below shows the featured indicators, the measures they used and the page where the indicator can be found. In some instances, more than one measure informs a single indicator (e.g., *median wait times* and *distribution of wait times* both inform *self-reported wait times* for diagnostic services).

This report also contains information on First Nations living on-reserve and recognized Inuit. The list of First Nations and Inuit indicators, as well as their location in this report, can be found at the end of this Annex on page 102.

INDICATOR	MEASURE	PAGE
THEME—ACCESS		
Proportion of population that reports having a regular family doctor	Percentage of population aged 15 or older who reported having a regular family doctor	18
Self-reported difficulty obtaining routine or ongoing health services	Percentage of population aged 15 years and older who reported difficulty obtaining routine or ongoing health services	19
Self-reported difficulty obtaining health information or advice	Percentage of population aged 15 years and older who reported difficulty obtaining health information or advice	19
Self-reported difficulty obtaining immediate care	Percentage of population aged 15 years and older who reported difficulty obtaining immediate care	19
Self-reported wait times for diagnostic services	Reported median wait time for diagnostic services	21
	Distribution of reported wait times for diagnostic services	21
Self-reported wait times for specialist physician visits	Reported median wait time for specialist physician visits	23
	Distribution of reported wait times for specialist physician visits	23
Self-reported wait times for surgery	Reported median wait time for non-emergency surgery	25
	Distribution of reported wait times for non-emergency surgery	25
Self-reported prescription drug spending as a percentage of income	Percentage of Canadian households who reported having spent a percentage of their after-tax income out-of-pocket on prescription drugs	27

INDICATOR	MEASURE	PAGE
THEME—QUALITY		
Self-reported patient satisfaction with overall health care services	Percentage of patients aged 15 years and older who reported they were very satisfied or somewhat satisfied with the way health care services were provided	30
Self-reported patient satisfaction with physician care	Percentage of patients aged 15 years and older who reported they were very satisfied or somewhat satisfied with the way the physician care was provided	32
Self-reported patient satisfaction with hospital care	Percentage of patients aged 15 years and older who reported they were very satisfied or somewhat satisfied with the way the hospital care was provided	33
Self-reported patient satisfaction with community-based care **NOT UPDATED FOR 2008**	Percentage of patients aged 15 years and older who reported they were very satisfied or somewhat satisfied with the way community-based care was provided	34
Self-reported patient satisfaction with telephone health line or tele-health services **NOT UPDATED FOR 2008**	Percentage of patients aged 15 years and older who reported they were very satisfied or somewhat satisfied with the way the telephone health line or tele-health service was provided	35
Hospitalization rate for ambulatory care sensitive conditions	Hospitalization rate per 100,000 population younger than 75 years of age for chronic conditions that can be cared for in the community	36
Readmission rate for acute myocardial infarction (AMI)	Percentage of patients re-admitted within 28 days following discharge for AMI	38
Mortality rate for acute myocardial infarction (AMI)	Number of deaths due to AMI per 100,000 population	40
Mortality rate for stroke	Number of deaths due to stroke per 100,000 population	40
THEME—HEALTH STATUS AND WELLNESS		
Perceived health	Percentage of the population aged 12 years and older who rated their health as excellent or very good	44
Life expectancy	Number of years a person would be expected to live, starting from birth	46
Health adjusted life expectancy **NOT UPDATED FOR 2008**	Health adjusted life expectancy for overall population	48
	Health adjusted life expectancy by income	48

INDICATOR	MEASURE	PAGE
Infant mortality	Number of infants who die in the first year of life per 1,000 live births	50
Low birth weight	Percentage of live births (where birth weight is known) with a birth weight less than 2,500 grams and at least 500 grams	52
Potential years of life lost due to suicide	Number of years of life lost due to suicide when a person dies before age 75, per 100,000 population	54
Potential years of life lost due to unintentional injury	Number of years of life lost due to unintentional injury when a person dies before age 75, per 100,000 population	54
Incidence rate for lung cancer	Number of new cases of lung cancer per 100,000 population	57
Incidence rate for prostate cancer	Number of new cases of prostate cancer per 100,000 male population	57
Incidence rate for breast cancer	Number of new cases of breast cancer per 100,000 female population	57
Incidence rate for colorectal cancer	Number of new cases of colorectal cancer per 100,000 population	57
Mortality rate for lung cancer	Number of deaths due to lung cancer per 100,000 population	61
Mortality rate for prostate cancer	Number of deaths due to prostate cancer per 100,000 male population	61
Mortality rate for breast cancer	Number of deaths due to breast cancer per 100,000 female population	61
Mortality rate for colorectal cancer	Number of deaths due to colorectal cancer per 100,000 population	61
Prevalence and incidence rates of diagnosed diabetes among Canadians	Prevalence (per 100 population) and incidence (per 1,000 population) rates of diagnosed diabetes among health service users	67
Self-reported body mass index (BMI)	Percentage of the population aged 18 years and older who reported a height and weight corresponding to a BMI in specified categories	70
Self-reported physical activity	Percentage of the population aged 12 years and older who reported themselves as physically active or physically inactive	74
Self-reported teenage smoking rates	Percentage of the population aged 12 to 19 (inclusive) years who reported they were current and daily smokers	76
Self-reported immunization for influenza, aged 65 plus (“Flu Shot”)	Percentage of the population aged 65 years and older who reported having received a flu shot	77

The following indicators have been identified for First Nations and Inuit populations by Health Canada's First Nations and Inuit Health Branch.

INDICATOR	MEASURE	PAGE
FIRST NATIONS AND INUIT		
Self-reported Pap smear	Proportion of First Nations females aged 18 and over and living on-reserve who reported having at least one Pap smear	81
Self-reported mammography	Proportion of First Nations females aged 18 and over and living on-reserve who reported having at least one mammogram in their lifetime	82
Prevalence of self-reported diabetes	Percentage of First Nations adults aged 18 and over and living on-reserve who reported they had been told by a health care professional they have one or more types of diabetes	83
Self-reported body mass index (BMI)	Percentage of First Nations adults aged 18 and over and living on-reserve who reported a height and weight corresponding to a BMI in specified categories	85
Self-reported level of physical activity	Percentage of First Nations adults aged 18 and over and living on-reserve who reported "sufficient" physical activity	87
Prevalence of self-reported depression	Percentage of First Nations adults aged 18 and over and living on-reserve who reported ever feeling sad, blue or depressed for two weeks or more in a row in the past 12 months	88
Life expectancy at birth	Projected average age of death for infants born in a given year in Inuit-inhabited regions	90
Suicide rate	The number of deaths due to suicide for a designated period of time in Inuit-inhabited areas	92
Infant mortality	The number of infants in Inuit-inhabited areas who die during their first year of life for every 1,000 live born infants	94

Annex 2: List of 70 Indicators Agreed to by Federal/Provincial/Territorial Jurisdictions

1. Difficulty obtaining routine or ongoing health services **(Featured)**
2. Difficulty obtaining health information or advice **(Featured)**
3. Difficulty obtaining immediate care **(Featured)**
4. Proportion of population that reports having a regular family physician **(Featured)**
5. Patient satisfaction with overall health care services **(Featured)**
6. Patient perceived quality with overall health care services
7. Patient satisfaction with community-based care **(Featured)**
8. Patient perceived quality with community-based care
9. Patient satisfaction with telephone health line or tele-health services **(Featured)**
10. Patient perceived quality with telephone health line or tele-health services
11. Proportion of population reporting contact with telephone health line
12. Hospitalization rate for ambulatory care sensitive conditions **(Featured)**
13. Proportion of female population aged 18–69 with at least one Pap test in the past three years
14. Proportion of women aged 50–69 obtaining mammography in the past two years
15. Home care clients per 100,000 population
16. Home care clients per 100,000 population, aged 75 plus
17. Wait times for cardiac bypass surgery
    - Median wait time for cardiac bypass surgery
    - Distribution of wait times for cardiac bypass surgery
18. Wait times for hip replacement surgery
    - Median wait time for hip replacement surgery
    - Distribution of wait times for hip replacement surgery
19. Wait times for knee replacement surgery
    - Median wait time for knee replacement surgery
    - Distribution of wait times for knee replacement surgery
20. Self-reported wait times for surgery **(Featured)**
    - Median wait time for surgery
    - Distribution of wait times for surgery

21. Self-reported wait times for specialist physician visits **(Featured)**
    - Median wait time for specialist physician visits
    - Distribution of wait times for specialist visits
22. Readmission rate for acute myocardial infarction (AMI) **(Featured)**
23. Readmission rate for pneumonia
24. 30-day in hospital acute myocardial infarction (AMI) mortality rate
25. 30-day in hospital stroke mortality rate
26. 365-day net survival rate for acute myocardial infarction (AMI)
27. 180-day net survival rate for stroke
28. Patient satisfaction with hospital care **(Featured)**
29. Patient perceived quality of hospital care
30. Prescription drug spending as a percentage of income **(Featured)**
31. Wait times for radiation therapy for prostate cancer
    - Median wait time for radiation therapy for prostate cancer
    - Distribution of wait times for radiation therapy for prostate cancer
32. Wait times for radiation therapy for breast cancer
    - Median wait time for radiation therapy for breast cancer
    - Distribution of wait times for radiation therapy for breast cancer
33. Self-reported wait times for diagnostic services **(Featured)**
    - Median wait time for diagnostic services
    - Distribution of wait times for diagnostic services
34. Patient satisfaction with physician care **(Featured)**
35. Patient perceived quality of physician care
36. Life expectancy **(Featured)**
    - Life expectancy for overall population
    - Life expectancy by income
37. Health-adjusted life expectancy (HALE) **(Featured)**
    - Health adjusted life expectancy (HALE) for overall population
    - Health adjusted life expectancy (HALE) by income
38. Infant mortality **(Featured)**
39. Low birth weight **(Featured)**
40. Mortality rate for lung cancer **(Featured)**
41. Mortality rate for prostate cancer **(Featured)**
42. Mortality rate for breast cancer **(Featured)**

43. Mortality rate for colorectal cancer **(Featured)**
44. Mortality rate for acute myocardial infarction (AMI) **(Featured)**
45. Mortality rate for stroke **(Featured)**
46. Five-year survival rate for lung cancer
47. Five-year survival rate for prostate cancer
48. Five-year survival rate for breast cancer
49. Five-year survival rate for colorectal cancer
50. Incidence rate for lung cancer **(Featured)**
51. Incidence rate for prostate cancer **(Featured)**
52. Incidence rate for breast cancer **(Featured)**
53. Incidence rate for colorectal cancer **(Featured)**
54. Potential years of life lost due to suicide **(Featured)**
55. Potential years of life lost due to unintentional injury **(Featured)**
56. Incidence rate for invasive meningococcal disease
57. Incidence rate for measles
58. Incidence rate for Haemophilus influenzae b (invasive) (Hib) disease
59. Incidence rate for tuberculosis
60. Incidence rate for Verotoxigenic E. Coli
61. Reported rate for chlamydia
62. Rate of newly reported HIV cases
63. Prevalence and incidence rates of diagnosed diabetes among Canadians **(Featured)**
64. Exposure to environmental tobacco smoke
65. Perceived health **(Featured)**
66. Teenage smoking rates **(Featured)**
    - Teenage smoking rates: Proportion of current teenage smokers
    - Teenage smoking rates: Proportion of daily smokers
67. Physical activity **(Featured)**
68. Body mass index **(Featured)**
69. Immunization for influenza, aged 65 plus (“Flu Shot”) **(Featured)**
70. Prevalence of depression

Annex 3: Data Source Exclusions and Limitations

The indicators featured in *Healthy Canadians—A Federal Report on Comparable Health Indicators 2008* are derived from databases, surveys and surveillance data. The data sources used for each indicator, as well as exclusions and limitations, are presented below. This will help the reader assess the reliability and validity of the information presented in this report.

Strengths and Limitations of Self-Reported Data

Healthy Canadians—A Federal Report on Comparable Health Indicators 2008 often refers to information that is derived from self-reported data. Self-reported data can be used to provide information on various health-related issues, although they are subject to some known limitations. In a systematic review evaluating the accuracy of self-reported utilization data, researchers showed that self-reported information may be influenced by factors such as a respondent's sociodemographic characteristics, cognitive ability or memory, stigma related to health care utilization, questionnaire design and/or the mode of data collection (e.g., whether respondents were interviewed by phone or in person).[50] In a report on adult obesity in Canada, Statistics Canada noted that variations in the methods used to collect information on height and weight yield different data. For example, self-reported measures of height and weight generate lower overweight and obesity rates than do direct physical measurements.[51]

In *Healthy Canadians 2008*, some indicators that rely on self-reported information may be subject to the limitations of the mode of data collection (i.e., interviews conducted by phone or in person). These indicators include *body mass index*, *physical activity* and *patient satisfaction with hospital care*.

Additionally, non-response bias may occur when using self-reported data. If some individuals within a sample have different characteristics and are less likely to answer a survey or a particular survey question, a bias may emerge in the overall responses. For the indicator *Body mass index*, a noticeable change was observed in the pattern of non-responses which may obfuscate actual trends in BMI. However, in *Healthy Canadians 2008*, survey response rates overall are very good, reducing the likelihood of non-response bias and the potential impact of non-responders.

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[50] Bhandari A, Wagner T. Self-reported utilization of health care services: Improving measurement and accuracy. *Medical Care Research and Review*. 2006;63(2):217–35.

[51] Tjepkema M. *Nutrition: Findings from the Canadian Community Health Survey—Adult obesity in Canada: Measured height and weight*. Ottawa: Statistics Canada; 2005. Catalogue No. 82-620-MWE2005001. Available from: http://www.statcan.ca/english/research/82-620-MIE/2005001/pdf/aobesity.pdf.

Statistics Canada

Canadian Community Health Survey (CCHS)

Exclusions/Limitations: Persons living on First Nation reserves and on Crown lands, residents of institutions, full-time members of the Canadian Armed Forces and residents of certain remote regions are excluded from the sample. Persons less than 12 years of age are not surveyed. In 2000–2001, 2003, 2005 and 2007, the sample included persons from Nunavut's 10 largest communities (e.g., Iqaluit, Rankin Inlet, Cambridge Bay, Kugluktuk); one community from Cape Dorset, Pangnirtung, Igloolik or Pond Inlet; and one community from Baker Lake or Arviat. Nunavut coverage is in the range of 71%.

Health Services Access Survey (HSAS)

Exclusions/Limitations: For 2001, 2003 and 2007, persons less than 15 years of age, persons living in Nunavut, the Yukon, the Northwest Territories, on First Nation Reserves and on Crown lands, residents of institutions, full-time members of the Canadian Armed Forces and residents of certain remote regions are excluded from the sample. For 2005, persons less than 15 years of age, persons living on First Nations Reserves and on Crown lands, residents of institutions, full-time members of the Canadian Armed Forces and residents of certain remote regions are excluded from the sample. In 2005, the sample included persons from Nunavut's 10 largest communities (e.g., Iqaluit, Rankin Inlet, Cambridge Bay, Kugluktuk); one community from Cape Dorset, Pangnirtung, Igloolik or Pond Inlet; and one community from Baker Lake or Arviat. Nunavut coverage is in the range of 71%.

Survey of Household Spending

Exclusions/Limitations: Persons living on First Nation reserves and on Crown lands, residents of institutions, full-time members of the Canadian Armed Forces and residents of certain remote regions are excluded from the sample. Data from the territories are not available due to data quality issues.

Note: This survey only includes out-of-pocket spending on prescription drugs (i.e., it does not cover drug expenses paid by a third party such as a private or public drug plan). If prescription drugs are covered by a plan but the household pays a certain percentage of the cost of the drugs, the cost to the household is included in the amount spent on prescription drugs. Over-the-counter medications are not included. The numbers for private and public premiums are not included in out-of-pocket spending and cannot be reported separately because the numbers would be too small.

There are a number of reasons why households may spend more than the maximum paid under a provincial prescription drug plan. These reasons include:

- The Survey of Household Spending and its predecessor, the Survey of Family Expenditures (FAMEX), are household surveys; thus, multiple families or a number of non-related persons (e.g., room-mates) could be in one household.
- In some cases, insurance premiums for a provincial prescription drug plan may have been reported as prescription drug spending.
- Households could live in more than one province in a survey year, but would be coded as living in the province at the time they were surveyed.

- People who change insurers may not request the required documentation from their previous insurer to ensure that they do not spend more than the maximum.
- Prescription drug spending while persons are temporarily outside of their home province may not be covered under the provincial plan.
- Spending could be on prescription drugs not covered under the provincial formulary.

Vital Statistics, Birth Database

Exclusions/Limitations: The actual (survey) population of the Birth Database refers to births to Canadian resident women and non-resident women in Canada, and births to Canadian resident women in some American states. Out-of-country births are incompletely reported. There is no reporting of births to Canadian resident women occurring in countries other than the United States; although there is a reciprocal agreement with the U.S., some states may not report births to Canadian resident women occurring in their state. The Health Statistics Division continues to monitor developments in the field of assisted reproductive technology and medical technology as they relate to the reporting of extremely low birth weight and/or low gestation babies. There is some inconsistency in the practice of registering these babies even though there is a legal requirement to do so. Statistically, this problem has resulted in alternative indicators for infant mortality being calculated, where the denominator is composed of live births weighing 500 grams or more.

Vital Statistics, Death Database

Exclusions/Limitations: The actual (survey) population of the Death Database refers to deaths of Canadian residents and non-residents in Canada, and deaths of Canadian residents in some American states. For out-of-country deaths, only deaths in the United States are regularly reported to Statistics Canada and, of these, Statistics Canada receives abstracted death records from approximately 20 American states. Recent correspondence with the National Center for Health Statistics (NCHS) in the United States reveals that, in 2004, there were 572 deaths of Canadian residents in the United States, compared with 259 death records received by Statistics Canada via the state registrars. When a person dies, the medical doctor in attendance, or the coroner, medical examiner or other certifier, completes the medical certificate of death. Quality studies done on the certification have shown that approximately one third of certificates contain major errors. Most of the errors (about 85%) involve the use of non-specific conditions such as “stroke” or “heart failure.” Approximately 10% of the errors involve illogical sequences of conditions entered on the line items. Some of these can be resolved during coding, where the classification rules pinpoint illogical sequences. The remaining 5% involve competing causes. Proper training of certifiers, however, can greatly reduce these errors. Statistics Canada is working with the provincial and territorial registrars on two projects to improve quality: a half-day workshop suitable for continuing medical education credit, and an online tutorial.

Canadian Cancer Registry

Exclusions/Limitations: All primary malignant tumours (except squamous cell skin cancer and basal cell skin cancer) are reported to the Canadian Cancer Registry (CCR). Each provincial and territorial cancer registry records all cases of cancer in its population by combining information from sources such as: cancer clinic files and radiotherapy reports; records from in-patient hospitals, out-patient clinics and private hospitals; pathology and other laboratory/autopsy reports; radiology and screening program reports; reports from physicians in private practice; and reports on cancer deaths from Vital Statistics registrars. To check for overcoverage, the CCR accepts tumour records only when the reporting provincial and territorial cancer registry is the same as the province or territory of residence of the cancer patient. Each provincial and territorial cancer registry is required to return records for residents of other jurisdictions to the appropriate provincial and territorial cancer registry. Undercoverage remains a stronger concern than overcoverage because of the following reasons: some provincial and territorial cancer registries do not use, or have had periods in the past where they have not used, death certificates as a source of cancer incidence; differing definitions of what is a cancer among the provincial and territorial cancer registries; differing definitions of what constitutes a malignant neoplasm; some cancers are difficult to diagnose because of their location in the body; differences among provincial and territorial cancer registries in coding practices, data entry or processing procedures; and failure to report cancer cases treated in a province, territory or country outside of the residence province or territory.

- For Québec, 2003 to 2005 data do not include Québec residents diagnosed and treated in Ontario. The 2005 Québec data are provisional. Missing are the cancer records from the CCR correction cycle that were excluded in order to meet the production deadline for the annual release of cancer incidence statistics set by the Canadian Council of Cancer Registries. Also missing are the death certificate only cases. The number of cancer records missing is estimated to be about 1%.

- The 2005 and 2006 Ontario data are provisional because the death certificate only cases are missing for both years. Death certificate only cases are estimated to be approximately 2% of the registration for each year. Ontario does not report in situ bladder cases to the Canadian Cancer Registry. Non-melanoma skin cancers are not registered in Ontario. Incidence for Kaposi's carcinoma is heavily underestimated.

- The 2006 British Columbia data are provisional. Missing are the cancer records from the correction cycle that were excluded to meet the production deadline for the annual release of cancer incidence statistics. The number of cancer records missing is estimated to be less than 1%.

Canadian Institute for Health Information (CIHI)

Hospital Morbidity Database (HMD)

Exclusions/Limitations: Patients not treated as inpatients in acute care hospitals (e.g., those seen only in an emergency department or chronic care institution).

The definition of the indicator *Ambulatory care sensitive conditions* was revised in 2006, and the hospitalization rate recalculated from 2001–2002 onwards. Because of this, data do not match what was reported in previous editions of *Healthy Canadians*.

Discharge Abstract Database (DAD)

Exclusions/Limitations: Québec does not participate in the DAD, so all discharges from Québec hospitals are not included in the DAD.

As the coding of discharges has changed over time, care must be taken not to compare between time periods using different coding. Prior to 2001–2002, the ICD-9 and ICD-9-CM classifications (International Classification of Diseases) were in use. The ICD-10-CA and Canadian Classification of Health Interventions (CCI) classification systems were first implemented in 2001–2002 in British Columbia, Newfoundland and Labrador, Nova Scotia, Prince Edward Island, Yukon Territory and parts of Saskatchewan. Full implementation of ICD-10-CA and CCI (with the exception of Québec) was achieved in 2004–2005 when Manitoba made the transition from ICD-9-CM. The classification scheme change since fiscal year 2001–2002 resulted in a number of challenges for users wishing to trend data over time. For more information, see *Coping with the Introduction of ICD-10-CA and CCI: Impact of New Classification Systems on the Assignment of Case Mix Groups/Day Procedure Groups,* which is based on data (for fiscal years 2001–2002 and 2002–2003) that can be found on CIHI's website. Appendix C of that report provides the coding classifications that were used by provinces/territories. Users are strongly advised to analyze data with the correct classification scheme.

Public Health Agency of Canada

National Diabetes Surveillance System (NDSS)

Exclusions/Limitations: Persons younger than 1 year of age.

Note to Readers: Readers should be cautious when interpreting these data.

Disclosure of Limitations:

- Three types of diabetes are included in the database: type 1, type 2 and gestational diabetes. Note that gestational diabetes is only included when coded as diabetes mellitus (ICD-9 Code 250 or ICD-10 Codes E10–E14). An adjustment is in place to exclude incorrectly coded gestational diabetes.
- Using administrative data for surveillance, as in the NDSS, often requires a compromise when trying to identify cases of a disease. It is necessary to balance the possibility of misclassifying people who actually have been diagnosed with diabetes but have not been identified by the NDSS as such (false negatives), with the reverse where people who do not have diabetes but have been identified as having it (false positives). Validation studies have indicated that the case definition used by the NDSS is reliable at minimizing both false negatives and false positives in order to depict a relatively accurate picture of diagnosed diabetes in Canada.
- Additionally, there are some people who have not been diagnosed with diabetes but who, in fact, have the disease. Estimates for the number of people in this category are outside the scope of the NDSS.
- The time span presented, five fiscal years, is insufficient for trend analysis.

Data are based on administrative data; therefore, their quality is constrained by the accuracy of those systems. Minor variations in data will occur when comparing data with other federal and provincial/territorial publications because of reporting delays, as well as different sources and dates of access to Statistics Canada's population estimates.

Assembly of First Nations (First Nations Information Governance Committee)

First Nations Regional Longitudinal Health Survey (RHS) 2002–2003—Adult Survey

Exclusions/Limitations: Individuals under 18 years of age and residents of Nunavut.

Results are limited to participating First Nations living on-reserve and in some non-reserve communities in the territories, excluding Nunavut. The Québec James Bay Cree and the Innu of Labrador did not participate. The sampling was based on the Indian Register, the accuracy of which varies from region to region; however, local sampling frames were based on more up-to-date locally validated counts. In Manitoba and British Columbia, paper surveys were employed as a response to difficulties with telecommunications, with possible interview mode effects.

Organisation for Economic Co-operation and Development (OECD)

OECD Health Data 2008

Exclusions/Limitations: All users of cross-national comparisons of health care data are advised that there are still important gaps with respect to international agreements on statistical methods. The same term can refer to very different things among the 30 OECD countries. Despite efforts to develop homogeneity, standardized health statistics is still a goal, not a reality. The statistics contained in OECD Health Data 2008 reflect the situation at the time of release; they have been refined and improved year after year. The aim of the files and the accompanying sources and methods is to provide an objective working tool. The cooperation and, indeed, the criticism of the various national data providers and users will enable improvements in the future.