REPORT ON THE HEALTH OF CANADIANS

Prepared by the Federal, Provincial, and Territorial
Advisory Committee on Population Health

For the Meeting of
Ministers of Health
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Preface

This *Report on the Health of Canadians* was prepared by the Federal, Provincial, and Territorial Advisory Committee on Population Health.

The role of the Advisory Committee is to advise the Conference of Deputy Ministers of Health on national and interprovincial strategies that could be considered to improve the health status of the Canadian population and to provide a more integrated approach to health.

This *Report on the Health of Canadians* is one of a number of initiatives proposed by the Advisory Committee in its discussion paper, Strategies for Population Health: Investing in the Health of Canadians. The framework and strategic directions in the discussion paper were adopted by the Federal, Provincial, and Territorial Ministers of Health at their September 1994 meeting in Halifax.

This report provides an opportunity to communicate with the public about the current health status of Canadians and the factors that influence their health. It is also intended to serve as a tool to help policy makers, health workers, and the public measure Canada's progress in achieving better overall population health and to identify actions that can be taken to make continued improvements.

More detailed explanations and statistics are provided in the *Report on the Health of Canadians: Technical Appendix*, which has been published under separate cover.

Federal, Provincial and Territorial governments recognize the importance of issues such as Aboriginal health and child health. These topics will be reviewed more extensively in subsequent publications.

Executive Summary

This report has been produced by the Federal, Provincial, and Territorial Advisory Committee on Population Health (ACPH) as a first step toward implementing some of the strategies outlined in the document Strategies for Population Health: Investing in the Health of Canadians (ACPH, 1994).

This report is intended to inform Canadians about the state of their health and the major factors that influence health. The report is also intended to serve as a tool to help policy makers, health workers, and the public measure Canada's progress in achieving a higher level of population health, and to identify actions that can be taken to make continued improvements.

Is the health of Canadians improving?

By many measures, the health of Canadians is improving. Canadians are living longer, fewer infants are dying in the first year of life, and early deaths due to heart disease and injuries have declined. Thus, we have been successful in adding years to life.

But have we added life to years as well? The data suggest that, in many ways, we have. For example, Canadians are spending about 90% of their life-span free from disabling health problems. Moreover, for most of the major diseases, death rates have declined, often because of both a reduced overall occurrence of the disease and improved treatments.

However, some health indicators show only a stable or even a worsening trend. The rate of low birthweight babies has not changed significantly since the 1980s, and the percentage of Canadians who rate their health as excellent – 25% – has remained the same as in 1985. More Canadians are overweight, more have had to cut down on regular activities due to health reasons, and fewer say that they are very satisfied with their jobs.

It should be noted, however, that we do not have comprehensive data on many health conditions such as mental illness, stress, arthritis, and diabetes. This could explain why, although Canadians are living longer, their self-rated health has not shown any improvement.

How does Canada's health status compare with other countries?

In life expectancy and infant deaths, Canada enjoys a standard of health that is among the best in the world. Compared with other industrialized countries, however, Canada could do better in preventing low birthweight babies, AIDS, and occupational injuries.

Is health shared equally by all Canadians?

Our overall high standard of health is not shared equally by all sectors in Canadian society. There are differences in health status by age, sex, level of income, education, and geographic area.

Age

While physical health and functional ability decline with age, there is more stress and depression among the young than among the older population. Psychological well-being and job satisfaction are also rated better among those who are older.

Male-Female Differences

By many measures, women are healthier than men. Women live, on average, about six years longer than men, and they enjoy more years free of disabling health problems. However, in recent years this gap in longevity has been closing. This appears to be related to increasing smoking rates among women and improved health behaviours among men (less risk behaviours such as drunk driving and smoking).

On measures such as self-rated health, psychological well-being, stress, and depression, women do not score as well as men, on average. The reasons for these male-female differences are not known precisely.

Living and Working Conditions

The rich are healthier than the middle class, who are in turn healthier than the poor. The well-educated are healthier than the less-educated, and the employed are healthier than the unemployed.

Income, education, and employment are all indicators of living and working conditions. These factors affect health by themselves, but also interact with each other. The combined factors of chronic unemployment, inadequate education, inadequate nutrition, and poor housing all contribute to the generally poorer level of health experienced by many Aboriginal communities and by both working and unemployed poor throughout Canada.

Provincial Differences

On most health status indicators, there are very large contrasts in overall population health among Canada's provinces and territories. In some cases, the difference is two-fold or more between the first and last-ranked province.

On indicators of well-being, functional health status, and rates of specific diseases and conditions, no province or territory is consistently healthy across all of the available indicators, nor does any score consistently low. More work is needed to understand why some areas of the country are healthier than others, based on these specific aspects and indicators of health.

Provincial differences in life expectancy, infant mortality, and overall death rates have diminished over the past 40 years. However, some gaps remain. On average, residents of western Canada live longer and have lower overall death rates than residents of Atlantic Canada. Residents of the Yukon and Northwest Territories have much poorer health status than other parts of the country, based on these particular indicators.

Influences on Health

While Canadians can take pride in being among the healthiest people in the world, this is not a time for complacency. Current trends in many of the most powerful factors that make and keep people healthy, such as employment, adequate income, and a fair distribution of wealth, are cause for concern. Unhealthy behaviours (smoking, lack of exercise, and weight gain) may take ten to twenty years before they are reflected in poorer overall population health status. However, right now there is a disturbing, unhealthy trend in these behaviours.

Canada has for many years been a world leader in gaining a better understanding about what makes and keeps people healthy, as shown in the landmark works of Lalonde (1974), the Ottawa Charter, and Achieving Health for All (Epp, 1986). More recently, the report on Strategies for Population Health: Investing in the Health of Canadians (ACPH, 1994) proposed a framework for action, which encompasses all the major influences on health, including:

- Living and working conditions (the social and economic environment): income, employment, social status, social support networks, education, and social factors in the workplace.
- Physical environment: physical factors in the workplace, as well as other aspects of the natural and human-built environment.
- Personal health practices, individual capacities, and coping skills: behaviours that enhance health or create risks to health, as well as individual characteristics such as coping skills, decision-making skills, and biology.
- Health services: services to promote, protect, maintain, and restore good health.
- Healthy child development is not included as a separate category of the framework, in spite of its crucial importance as a determinant of health. Rather, each of the categories includes factors known to contribute to healthy child development

Can the health of Canadians be improved and the inequalities in health status be reduced?

The answer is, unequivocally, yes. But to be successful, the following challenges will need to be addressed:

Living and Working Conditions

- Create a thriving, sustainable economy, with meaningful work for all.
- Ensure an adequate income for all Canadians.
- Reduce the number of families living in poverty.

- Achieve an equitable distribution of income.
- Ensure healthy working conditions.
- Encourage life-long learning.
- Foster friendship and social support networks, in families and communities.

Physical Environment

- Foster a healthy and sustainable environment.
- Ensure suitable, adequate, and affordable housing.
- Create safe and well-designed communities.

Personal Health Practices and Coping Skills

- Foster healthy child development.
- Encourage healthy life-choice decisions.

Health Services

- Ensure appropriate and affordable health services, accessible to all.
- Reduce preventable illness, injury, disability, and death.

To meet this array of challenges will clearly require a collaborative effort across many sectors and the active support of the general public. The health sector cannot act alone, since most of the factors influencing health fall outside its purview. Key sectors that need to be involved, in addition to health, include the economic, education, environmental, employment, and social service sectors. Voluntary, professional, business, consumer, and labour organizations should all be participants, along with all levels of government. Representatives of populations living in disadvantaged circumstances and experiencing significant health disparities, particularly Aboriginal communities, must be essential partners in initiatives to address their unique needs.

A next step towards improving the overall health of Canadians would be to develop national health goals. Almost all provinces and territories have established their own health goals that address the major influences on population health: living and working conditions, the physical environment, health practices and coping skills, biology and genetics, child development, and health services. National health goals addressing these factors have the potential to be the basis of ongoing, coordinated action to further improve the health of Canadians.

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1 Introduction

Purpose

The overall level of health attained by Canadians is an important measure of the success of our society. Good health enables individuals to lead productive and fulfilling lives. For the country as a whole, a high level of health contributes to increased prosperity and overall social stability.

This report provides an overview of the health of Canadians of all ages, using a selection of health indicators. The purpose of the report is to increase awareness and understanding about the health status of Canadians and the factors that influence their health. The report can also serve as a tool to help policy makers, health workers, and the public measure Canada's progress in achieving better population health, and to identify actions that can be taken to continue improving the health of our population.

In the future, this report may be updated on a regular basis, and reports may be developed on specific topics or issues. Topics under consideration for future reports include healthy child development, gender differences in health, and Aboriginal health.

How is Health Measured?

The concept of health has broadened over the past century, from the narrow view of health as the absence of disease to a more inclusive concept, emphasizing social and personal resources as well as physical capabilities.

CHANGES IN THE DEFINITION OF HEALTH

Absence of disease or health problems	➔	A complete state of physical, mental, and social well-being. The ability to realize hopes and satisfy needs and to change or cope with the environment.

As the concept of health has evolved, the way we measure health has also changed.

Health status indicators are phenomena we can measure, which serve as an indication of the state of health of individuals and thus the health of the overall population. Life expectancy, for instance, is actually a measure of length of life – the number of years a person can expect to live, on average. As a health status indicator, life expectancy provides a yardstick for measuring one aspect of the population's overall health – the extent to which people are able to live a long life, through all stages of a life cycle.

Often, the measures we call “health status indicators” are actually measures of disease or death, rather than measures of our good health or well-being. Although these traditional health status indicators are not ideal measures of health, they do have certain advantages in terms of consistency of definition, availability, and international acceptance. While we continue to rely on these more traditional measures such as life expectancy and death rates, efforts are being made to develop additional – and more positive – measures of health.

EXPANDING THE WAYS WE MEASURE HEALTH STATUS

Traditional Indicators	Additional Types of Indicators
Length of life	Years of healthy life, quality of life, well-being
Rates of disease and death	Impact of health problems on everyday life
Measures of physical health	Measures of mental, social, and emotional health

What Makes People Healthy?

There is a growing body of evidence about what makes people healthy. The Lalonde Report set the stage in 1974, by establishing a framework of key factors that seemed to determine health status: lifestyle, environment, human biology, and health services. Since then, much has been learned that supports and expands this basic framework. For example, building on the Lalonde Report, the Honourable Jake Epp (1986) identified specific challenges in achieving health for all Canadians, as well as the need for a balance between health promotion, disease prevention, and health care.

When health is viewed as a more inclusive concept, many of the factors that affect this expanded view of health lie beyond illness treatment and beyond the health services system.

The ideas about what determines health have been drawn together in a document called Strategies for Population Health: Investing in the Health of Canadians, prepared by the Federal, Provincial, and Territorial Advisory Committee on Population Health (1994). The Strategies document identified key factors that influence health, including the social and economic environment, the physical environment, personal health practices and coping skills, biology and genetic endowment, and health services. Two of these categories – health practices and coping skills, and biology and genetics – relate essentially to the individual. The other three categories relate to the collective conditions – environments and services – that enable or provide the basis for the individual factors.

Living and working conditions (the social and economic environment)

Our health is greatly affected by things in our social and economic environment, such as having an adequate income, physical safety, learning opportunities, and meaningful work. Friendship and other support networks in our families, workplaces, and communities, and social roles, such as the roles of women and men in our society, also have an important impact. In fact, evidence suggests that living and working conditions are perhaps the most powerful influences on health.

Physical environment

The safety, quality, and sustainability of our physical environment have profound implications for our health today, and for the health of future generations. The environment provides us with food, water, air, sunshine, materials for shelter, clothing, and industry, and opportunities for recreation. Contamination of the environment can pose an immediate threat to human health. Depletion of natural resources, disruption of food chains, and activities that contribute to climate change can pose an even greater threat over the longer term.

Biology and genetic endowment

The genetic endowment of the individual, biological differences in sex, and the way in which the human body develops and ages are fundamental determinants of health. Throughout life, our living and working conditions have a direct impact on our human biology. Positive stimulation during early childhood, for instance, provides a powerful buffer against disease and other threats to health, and helps to set the stage for a child's achievement in school and beyond.

Personal health practices and coping skills

As individuals, our health is strongly linked to our coping skills and to the choices we make about health behaviours. Being able to communicate with others, to cope with stress, and having a sense of control over our life circumstances are all important in helping us to resist disease. The choices we make about smoking, alcohol and drug use, physical activity, sexual behaviour, and diet have a major impact on our health and well-being. Our decision-making and coping skills and our health practices do not happen at one point in time, but evolve and develop over a period of many years, beginning very early in life.

Health services

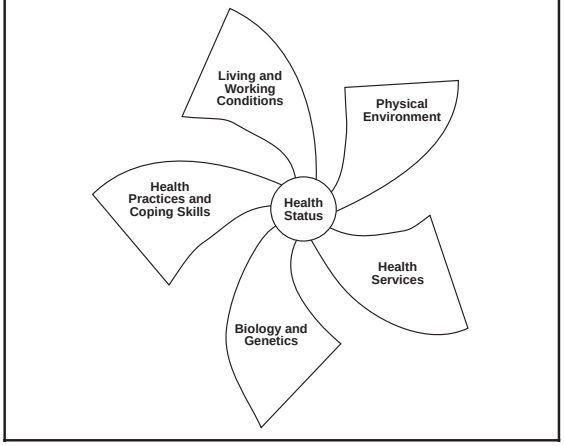
No matter how much progress we make – in improving living and working conditions, improving people's skills and lifestyle choices, raising healthy children, and sustaining the environment – people will still get sick. Access to effective health services – preventive and treatment-oriented – will continue to make an important contribution to health.

The influences on health are inter-connected

The exact ways in which living and working conditions, the physical environment, biological influences, health practices and coping skills, and health services affect health are complex and not fully understood.

We know that each factor that influences health is important in its own right. At the same time, the factors are inter-related (Figure 1). The combined influences of these factors together determine health status. To improve health and well-being, we need to consider each factor, as well as the ties that join them together. The preamble to the Canada Health Act recognizes the inter-connectedness of the factors that influence health:

Figure 1
Influences on Health



> ...Canadians can achieve further improvements in their well-being through combining individual lifestyles that emphasize fitness, prevention, and health promotion with collective action against the social, environmental, and occupational causes of disease, and they desire a system of health services that will promote such physical and mental health and such protection against disease. (Canada Health Act, 1984)

We also need to be aware that in many cases, these complex interactions flow both ways. Health need not be thought of as the end product of all the endeavours of society. Rather, it works the other way as well. The healthier the population, the more productive the economy will be, and the more sustainable our natural environment and resource base will be.

Approach and Organization of the Report

To describe the health of Canadians and to assess how well we are doing in achieving health for all, this report considers the following questions:

- **Time trends**
  Is the overall health of Canadians improving? What are the trends in population health status, and in the factors that influence health?

- **International comparisons**
  How does Canada's level of health compare with other countries?

- **Equality**
  Are good health and the factors that contribute to good health shared equally by all Canadians? Or, are there some groups that are healthier than others?

- **Potential for improvement**
  Based on the available evidence, is there potential for improvement? How can we set targets that are achievable?

- **Improving health**
  What can be done to make continued progress towards achieving better health for all Canadians?

A variety of indicators is used in answering the above questions. The indicators portrayed in this report have been chosen because they illustrate many different aspects of health, are easy to understand, and are available in hard numbers, as data, to allow for comparisons between groups and over time. Appendix D contains a summary table of the indicator data portrayed throughout the report.

For more information about the indicators used in this report, readers may wish to refer to the Technical Appendix, which is published separately. The Technical Appendix provides detailed explanations on 87 health indicators, as well as most of the data on which all but a few of the graphics in this report were based.

Health Status of Canadians

How is Health Status Measured?

Many aspects of health status can be measured. These include the level of general health and well-being, the capacity to function, the existence of disease or health problems, causes of death, and length of life.

Well-being

Indicators of well-being attempt to measure the extent of positive health. Well-being is more than being alive and being able to function. It implies a certain level of vitality and resistance to disease. Examples are measures of psychological well-being, self-esteem, sense of control over our own lives, or job satisfaction.

Function

Indicators of functional health status focus on the impact of health problems on our everyday lives. Examples of "function" indicators are the percent of people who are limited in their ability to perform daily tasks, rates of injuries that result in time off work, or years of life spent free from disabling health problems.

Diseases and conditions

The rates at which specific diseases or conditions occur in the general population help identify ongoing trends and patterns of diseases or health problems, such as AIDS, birth defects, or cancer. The number of people suffering from a given disease or condition also helps to determine the need for prevention, treatment, and support services.

Deaths

Overall death rates, as well as death rates from specific causes, are commonly used to compare the level of health in different populations, or of a given population at different points in time. Death rates can also be used to identify health problems, for example, deaths due to smoking or alcohol use.

Indicators of premature death, such as infant mortality and "potential years of life lost", focus on deaths that occur in the younger age groups and that can, in theory, be prevented or postponed.

Length of life

Life expectancy, the number of years a person can expect to live, is a widely used, internationally-accepted measure of health status. Life expectancy reflects the extent to which people are able to live through all stages of a complete life cycle.

Sources of Information

Various methods are used to collect data on health status indicators. Many indicators are based on routinely-collected data, such as registrations of births and deaths and records of hospitalizations. For certain diseases and conditions, including communicable diseases, cancer, and birth defects, "surveillance systems" are used to track disease trends and patterns.

Surveys are also an important source of health indicator data. These may involve administering tests, such as blood pressure measurements or psychological tests. A common method, which is less specific but also less costly, is to ask people about their health. For example, survey respondents might be asked whether they have ever had high blood pressure diagnosed, how much stress they experience in their daily lives, or how they would rate their own health. Surveys provide important information about how people think, feel, and behave.

Each indicator and each method of collecting data has its unique strengths and limitations. It is important to note that these measures are not precise, and depending on which indicators are used – and how they are defined and collected – will result in a slightly different view of the health of Canadians. It is hoped that by using a broad range of different health status measurements, this report will be able to provide a more complete and accurate picture of the overall health of Canadians.

Is the Health Status of Canadians Improving?

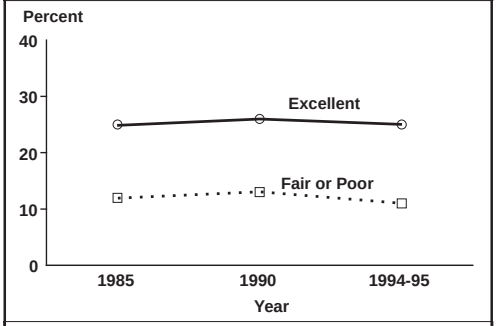
On many measures, Canadians have made good progress in their collective health status. Some indicators, however, show a stable or worsening trend, indicating a need for action to improve health in certain areas.

Well-being

One way to measure well-being is to ask people to rate their own health. Self-rated health status summarizes physical and mental health as experienced by the individual, according to their own values.

In 1994-95, one-quarter of Canadians described their health as excellent. The way Canadians rate their own health has remained virtually unchanged since 1985 (Figure 2).

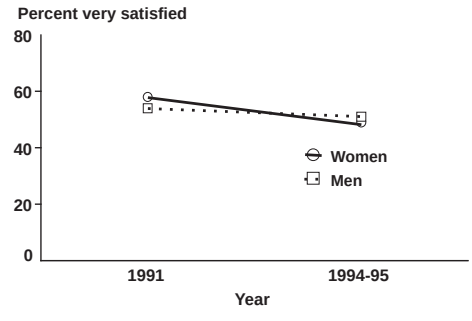
Figure 2
Self-Rated Health Status, Age 15+, Canada



Sources: *Stephens, T., & Fowler Graham, E. (Eds.), 1993. Canada's Health Promotion Survey 1990: Technical Report. Statistics Canada. National Population Health Survey 1994-95.*

On the other hand, job satisfaction – which contributes to emotional well-being – seems to have declined in recent years. In 1994-95, only half the working population reported that they were very satisfied with their work. Since 1991, the decrease in job satisfaction has been greater among women workers than among men (Figure 3).

Figure 3
Job Satisfaction, Working Population Age 15+, Canada



Sources: *Statistics Canada. General Social Survey, 1991 and National Population Health Survey 1994-95.*

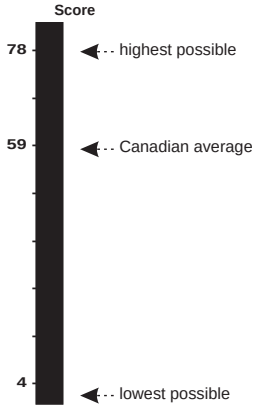
Time Trends

Time trends help to provide a context for interpreting data about the health of Canadians today. The availability of time trend data varies considerably from indicator to indicator. In comparing the various graphs throughout this report, please note that graphs will cover different time periods, depending on data availability.

One indicator of psychological well-being is the sense of coherence scale, which measures a person's outlook on life – the extent to which life events are comprehensible, challenges are manageable, and life is meaningful. People with a healthy outlook are more able to cope successfully with stress and to remain healthy.

In 1994-95, Canadians had an average score of 59 on this index, with 78 being the maximum possible score, representing the highest amount of psychological well-being (Figure 4). As this is the first time this measure has been used in a national survey, no time trends are available.

Figure 4
Psychological Well-being, Age 18+, Canada, 1994-95

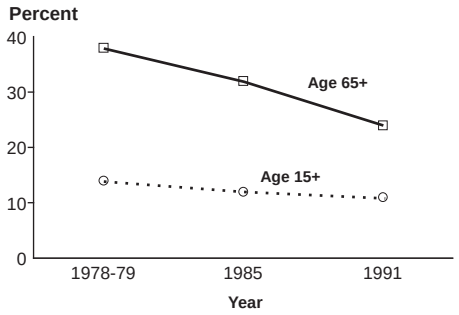


Source: *Statistics Canada. National Population Health Survey, 1994-95.*

Function

Almost 5 million Canadians report having a disability or handicap or being limited in certain activities on a continuing basis because of a health problem. Since the late 1970s, the proportion of the population who report that they are limited in their daily activities has declined, especially among older Canadians (Figure 5). This may reflect a decline in the diseases and health conditions which cause disability. It may also reflect changes in attitudes and/or environments (wheelchair accessibility, for example), resulting in health problems having less of an impact on daily life.

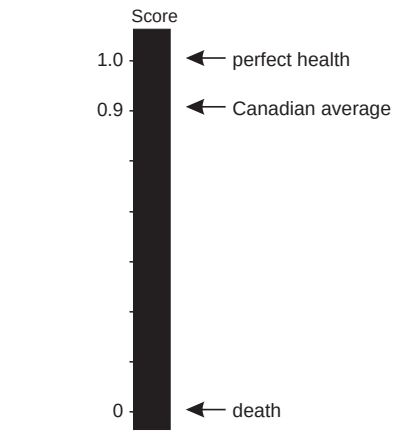
Figure 5
Long-term Activity Limitation, Canada



Source: *Statistics Canada. Canada Health Survey (1978-79) and General Social Survey (1985 and 1991)*
Note: *Long-term activity limitation is any limitation or handicap, lasting at least six months, in normal activities, at home, school, or work.*

When asked a series of questions about their vision, hearing, speech, mobility, use of hands and fingers, memory and thinking, feelings, and pain and discomfort, most Canadians are either in "perfect health" or have ailments of a minor nature that can be fully corrected, such as near or far-sightedness or a slight hearing loss (Figure 6). For this measure, called functional health status, no time trends are available.

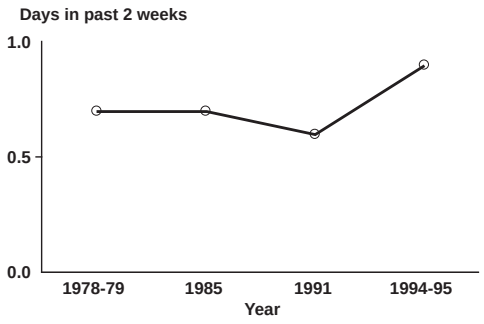
Figure 6
Functional Health Status, Age 12+, Canada, 1994-95



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

Another indicator of function is "two-week disability-days" – the number of days in which a person stayed in bed or cut down on normal activities because of illness or injury in the previous two weeks. In 1994-95, Canadians, on average, reported almost one disability-day in the past two weeks. This is a substantial increase over the average number of disability-days reported in previous surveys (Figure 7).

Figure 7
Disability-Days, Age 15+, Canada



Source*: Canada Health Survey (1978-79). General Social Survey (1985 and 1991). National Population Health Survey 1994-95 .*

Canadians also experience a significant number of work-related injuries that result in compensation to the injured worker. In 1993, there were more than 423,000 work injuries, a rate of almost 4 for every 100 workers (Figure 8). Rates of work injuries vary widely between industries and provinces, partly due to differences in workers' compensation schemes, data reporting requirements, and record keeping systems. This makes it difficult to make comparisons and to assess time trends for this indicator, although there does appear to be a trend towards a reduction in the overall rate of work-related injuries.

Figure 8
Time-Loss Work Injuries, Canada, 1982-1993

Sources*: Statistics Canada. Health Statistics Division. Rates calculated with data from the National Work Injuries Statistics Section (number of time-loss injuries) and the Labour Force Survey (number of paid workers).*

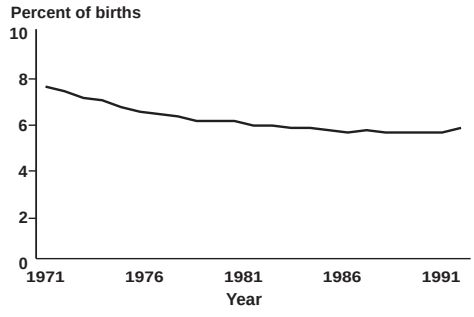
Diseases and Health Conditions

Low Birthweight

Babies with low birthweight – birthweight less than 2,500 grams (about 5.5 pounds) – are at increased risk of illness and death. Many low birthweight babies have disabilities or other health problems that require special care throughout their lives. In 1993, more than 22,000 babies – 5.7% of all babies born in Canada – were low in birthweight. The rate of low birthweight has not changed significantly since the 1980s (Figure 9).

Many factors contribute to low birthweight. Some of the known causes are smoking or alcohol and drug use during pregnancy, low pre-pregnancy weight, very young maternal age, and multiple births. Mothers living in poverty, with low educational levels, and without social support are also more likely to have low birthweight babies.

Figure 9
Low Birthweight Babies, Canada, 1971-1991



Source*: Statistics Canada. Births and Deaths. Figures do not include Newfoundland.*

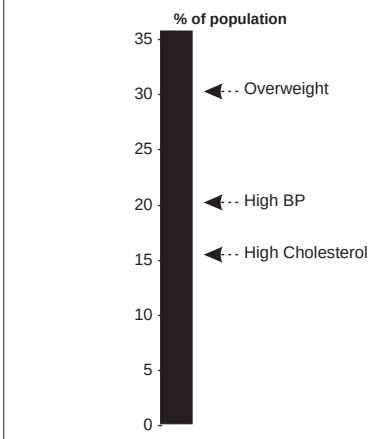
Risk Factors

High blood pressure, high blood cholesterol, and being overweight are physical conditions that are linked to a wide range of health problems, especially heart disease and stroke.

In provincial Heart Health Surveys during the period 1986-1992, more than one in five Canadians age 18-74 had high blood pressure, and 15% had a high risk level of blood cholesterol (Figure 10). There are no comparable data from other time periods.

In 1994-95, almost one-third of Canadians age 18-74 were overweight to the point of probable health risk, based on their self-reported height and weight.

Figure 10
High Blood and High Cholesterol (1986-1992) and Overweight (1994-95), Canadians Age 18-74



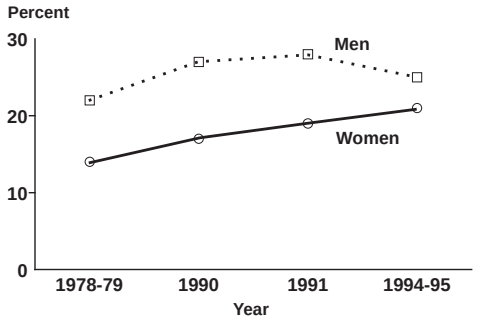
Sources: *Statistics Canada. National Population Health Survey, 1994-95 (overweight). Provincial Heart Health Surveys Research Group (Balram, C., Connelly, P., Gelskey, D. et al.) (high blood pressure and high blood cholesterol).*

Time trends, available for the 20-64 age group, show that there has been a significant increase in overweight since the mid-1980s, especially among women (Figure 11).

In 1994-95, one-quarter of men and more than one-fifth of women age 20-64 were overweight to the point of possible health risk, based on their self-reported height and weight. Studies have shown that many people tend to understate their weight. Therefore, it is likely that overweight is more common than the rates shown in Figure 11.

Many women who have normal, healthy weights are still unhappy with their bodies and want to lose weight. When asked what their desired weight would be, almost half of women age 20-24 say that they would like to have a weight that would be defined as underweight for their height. Social pressure for women to be thin and media emphasis on women's physical appearance as measures of worth and success are possible explanations for women's attitudes towards their weights.

Figure 11
Overweight, Ages 20-64, Canada



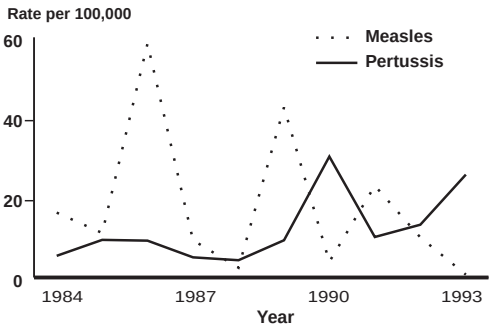
Sources: *General Social Survey (1985 and 1991). Canada's Health Promotion Survey 1990. National Population Health Survey 1994-95.*
Note: *Overweight defined as Body Mass Index greater than 27 (self-reported).*

Communicable Diseases

Communicable diseases are those that may be transmitted, directly or indirectly, from one person to another.

Some communicable diseases can be prevented through the use of vaccines. Through the development and wide use of vaccines, diphtheria, tetanus, and polio have been virtually eliminated in Canada. Diseases such as measles, rubella (German measles), and mumps have been greatly reduced. However, cases and outbreaks of vaccine-preventable diseases still occur on a sporadic basis (Figure 12).

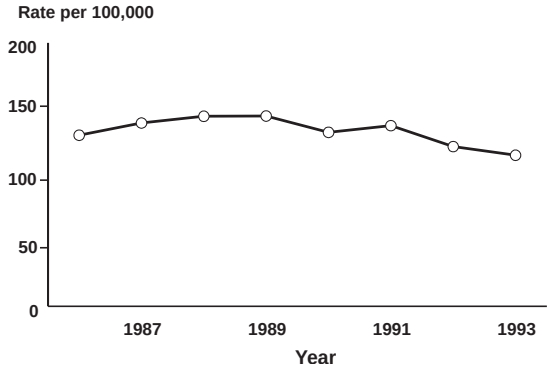
Figure 12
Reported Cases - Measles and Pertussis, Canada, 1984-1993



Source: *Health Canada. Laboratory Centre for Disease Control. Notifiable Disease Annual Summary 1993.*

Based on reported cases of intestinal infections such as salmonellosis, campylobacteriosis, and giardiasis ("beaver fever"), we know that illnesses caused by contaminated food and drinking water continue to occur (Figure 13). The burden of these intestinal illnesses is not known precisely, however, as most cases are not recognized or reported.

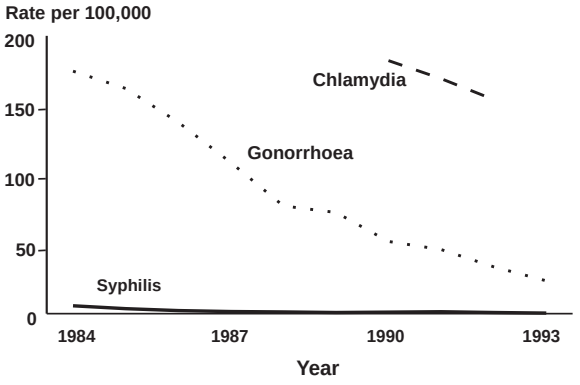
Figure 13
Reported Cases - Intestinal Infections, Canada, 1986-1993



Source: *Health Canada. Laboratory Centre for Disease Control. Notifiable Disease Annual Summary 1993. Intestinal Infections include amoebiasis, campylobacteriosis, giardiasis, Hepatitis A, salmonellosis, shigellosis.*

Sexually transmitted diseases can lead to infertility, severe illness, and even death. Since the 1980s, gonorrhoea and syphilis have continued to decline in frequency (Figure 14). Rates of chlamydia have remained high, although chlamydia has been systematically monitored only since 1991.

Figure 14
Reported Cases - Sexually Transmitted Diseases, Canada, 1984-1993

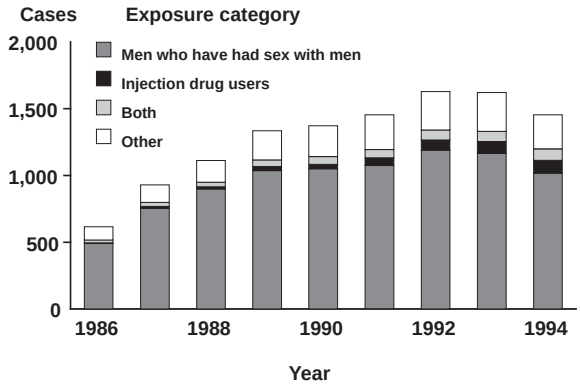


Source: *Health Canada. Laboratory Centre for Disease Control. Notifiable Disease Annual Summary 1993.*
Note: *Syphilis infection refers to early symptomatic syphilis.*

The first case of AIDS was reported in Canada in 1979. Throughout the 1980s, there was a steady rise in the number of new AIDS cases each year. The rate has now begun to plateau, based on the number of cases reported as of April 1996 (Figure 15).

Among injection drug users, HIV[1] and AIDS rates are increasing. In British Columbia, injection drug users have overtaken men who have sex with men as the risk group with the highest number of HIV positive tests (Provincial Health Officer, 1996).

Figure 15
AIDS Cases by Year of Diagnosis, Canada, 1986-1994



Source: *Health Canada. Quarterly Surveillance Update: AIDS in Canada, April 1996.*
Note: *The category "other" includes heterosexual contacts, perinatal transmission, blood transfusions, other risk factors or the absence of risk factors.*

1 Human immunodeficiency virus, the infectious agent that causes AIDS.

Other new diseases that have occurred in North America include Lyme disease, hepatitis C, and hantavirus. Certain well-known diseases, such as measles, tuberculosis, and toxoplasmosis, are posing an increased threat to the public's health due to drug resistance, increasing susceptibility in the population, or newly recognized means of transmission.

Although communicable diseases as a group cause fewer deaths than in previous generations, these diseases have not been eradicated and require a strong, ongoing program of surveillance and control.

Chronic Diseases and Conditions

In contrast to communicable diseases, chronic diseases are illnesses or conditions which are not transmitted from person to person.

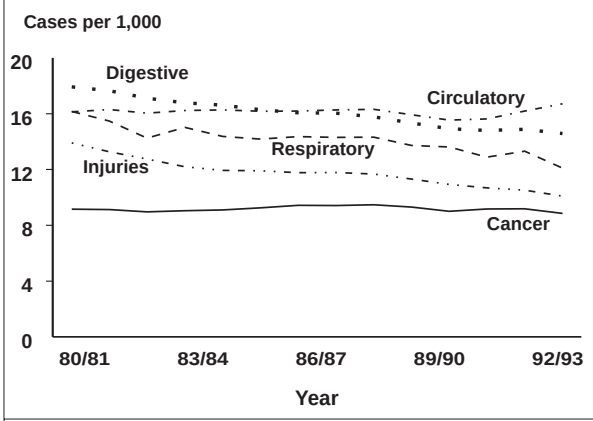
The term chronic disease encompasses a wide range of health problems, such as heart disease, cancer, injuries, mental illness, diabetes, arthritis, and allergies. Chronic diseases may last many years, and a complete cure may never be achieved. Although chronic diseases can occur at any age, they are more common and cause greater disability among the older age groups.

On the whole, information about the number of people experiencing chronic diseases is very incomplete. Counting cases of a given disease requires a centralized system for diagnosing and registering disease events. Such registration systems exist in Canada for only a few diseases and conditions, notably cancer and birth defects.

Hospitalization rates provide information about illnesses that result in admission to hospital – about 3.6 million cases in 1992/93. Over the past ten years, the hospitalization rate has declined for digestive diseases, respiratory diseases, and injuries, while the rates for circulatory diseases and cancer have remained about the same (Figure 16).

These rates give us some clues as to disease trends. For example, there is an improving trend in serious injuries requiring admission to hospital. However, hospitalization rates do not provide a complete picture of the illnesses people experience, as they do not tell us about illnesses treated in the home, emergency rooms, doctors' offices, or other settings, or the impact of shortened hospital stays for certain types of illness or injury.

Figure 16
Hospitalization Rates, Canada 1980/81 - 1992/93.

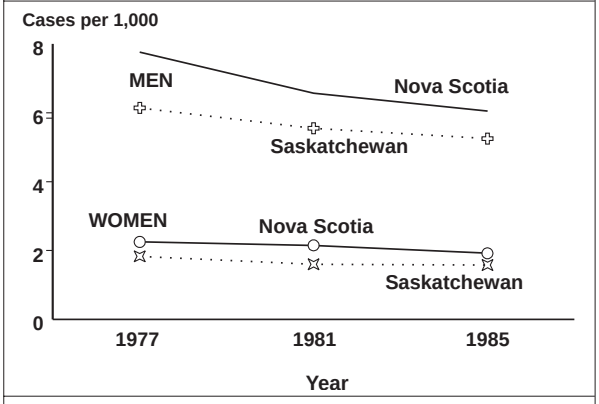


Source: *Statistics Canada. Health Statistics Division. Health Indicators, 1996 edition.*

For diseases which almost always require patients to be hospitalized, hospital statistics can be used to study time trends in the incidence (rate of new cases) of the disease. For example, most patients who experience acute myocardial infarction (heart attack) are admitted to hospital.

In one study, hospital and death data were combined to compare trends in heart disease incidence in Nova Scotia, a province with relatively high death rates from heart disease, and Saskatchewan, which has one of the lowest rates. The study showed that the incidence was declining in both provinces between 1977 and 1985 (Figure 17).

Figure 17
Incidence of Acute Myocardial Infarction (Heart Attack), Ages 25-74, Saskatchewan and Nova Scotia, 1977-1985

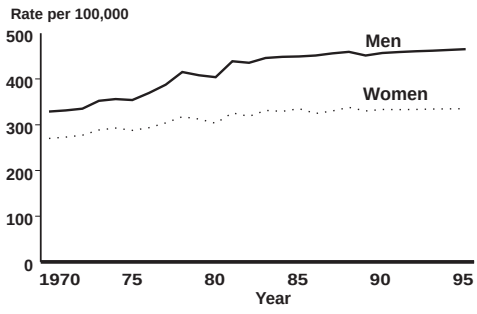


Source: *The Nova Scotia-Saskatchewan Cardiovascular Epidemiology Group. In Heart and Stroke in Canada, Heart and Stroke Foundation of Canada, 1995.*
Note: *Age standardized rates of fatal and nonfatal first and recurrent acute myocardial infarction.*

Information about cancer cases is compiled through a national reporting system. This provides a database for studying cancer trends and patterns.

In 1995, an estimated 125,000 new cases of cancer were diagnosed in Canada. For all types of cancer combined, the incidence (rate of new cases) has remained relatively stable since the mid-1980s (Figure 18). Although the overall rate is not changing, a few types of cancer are increasing (see below), while many are becoming less common.

Figure 18
New Cancer Cases, All Cancer Sites, Canada, 1970-1995

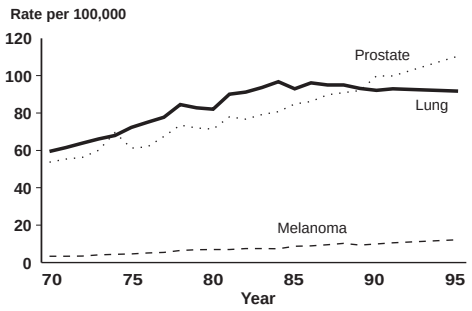


Source: *National Cancer Institute of Canada. Canadian Cancer Statistics 1995.*
Note: *Age standardized incidence rates. Figures for 1991 to 1995 are estimated rates.*

Among men, the incidence of prostate cancer has increased steadily, and has now become the most frequently occurring type of cancer. Melanoma, a type of skin cancer that can be caused by over-exposure to sunlight, is also rising (Figure 19).

Lung cancer incidence rates for men levelled off in the mid-1980s and, by the early 1990s began to show a small decline. This reflects the fall in smoking rates among men, which began in the mid-1960s.

Figure 19
New Cancer Cases, Men, Canada

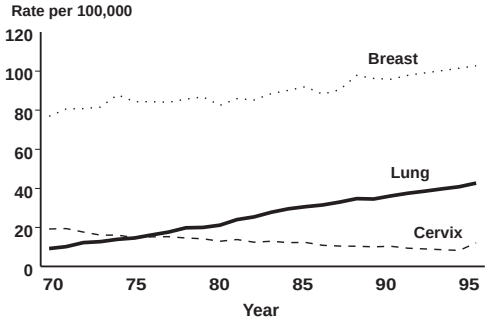


Source*: National Cancer Institute of Canada. Canadian Cancer Statistics 1995.*
Note*: Age standardized Incidence rates.*

In contrast, lung cancer incidence rates among women continue to climb steadily (Figure 20), as smoking rates among women have not declined as they have with men.

Breast cancer incidence among women has also risen among women age 50 and older. This may be due, in part, to better detection through mammographic screening since the mid-1980s. In younger women, breast cancer is less common, and the rate of new cases has not changed significantly since the 1970s. Cancer of the cervix has become less common since the introduction of Pap smear screening programs.

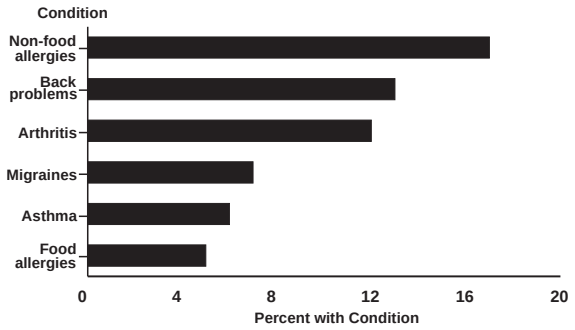
Figure 20
New Cancer Cases, Women, Canada



Source*: National Cancer Institute of Canada. Canadian Cancer Statistics 1995.*

In the 1994-95 *National Population Health Survey*, the most common chronic conditions reported were allergies, back problems, and arthritis/rheumatism. Migraine headaches and asthma also affect significant numbers of Canadians (Figure 21). Although earlier surveys have determined rates for many of these conditions, comparisons between surveys cannot be made because of differences in the wording of survey questions.

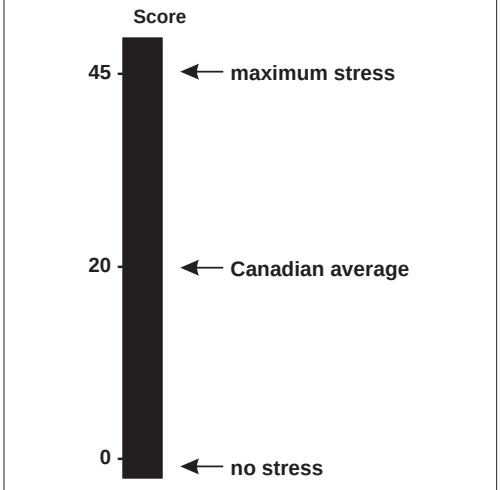
Figure 21
Chronic Conditions, Age 12+, Canada, 1994-95



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

In the area of mental illness, indicators to measure population health status continue to be developed. The *National Population Health Survey* collected new information about levels of chronic stress and work stress, and about the proportion of people who have symptoms of depression, one of the most common mental illnesses. Based on this survey, Canadians have a work stress score about in the middle of the possible range (Figure 22), and about one in twenty Canadian adults would likely be rated as depressed. There are no trend data for these mental illness indicators, so comparisons with other times or places are not possible.

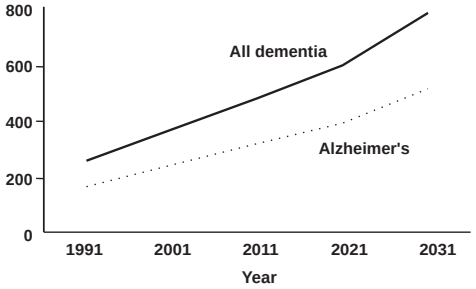
Figure 22
Work Stress Index, Working Population
Age 15-74, Canada, 1994-95



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

According to the 1991 Canadian Study of Health and Aging, 8% of Canadians age 65 and older have Alzheimer's or some other form of dementia. While there are no data on the prevalence of dementia from an earlier time period, projections for the next 40 years were calculated on the basis of the 1991 results. These projections show that there will probably be many more dementia cases in the future (Figure 23). As the population ages, social and other supports for persons with dementia and their caregivers will be required, in order to maintain quality of life.

Figure 23
Projected Prevalence of Dementia, Canada, 1991-2031



Source: *Canadian Study of Health and Aging Working Group, 1994. Canadian Study of Health and Aging: Study Methods and Prevalence of Dementia. Canadian Medical Association Journal, 150(6), 899-913.*

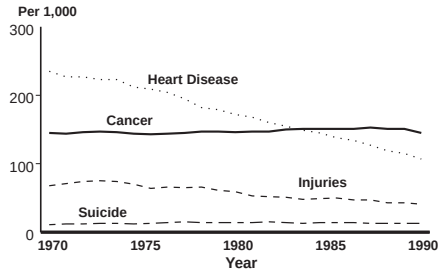
Death Rates

Since the 1970s, death rates from most major causes have declined, particularly deaths due to heart disease and injuries (Figure 24).

The decline in heart disease deaths has been due to a combination of factors. Reductions in smoking (among men), less consumption of dietary fat, and improved control of hypertension have meant that fewer cases of heart disease are occurring. Improvements in medical and surgical care have resulted in better survival rates when heart disease does occur.

Injury deaths have declined as a result of several factors, including increased safety consciousness and safer behaviours. Legislation and programs aimed at such issues as improved roads and vehicles, impaired driving, seatbelt use, and motorcycle helmet use have contributed to the improving trends.

Figure 24
Death Rates, Canada, 1970-1992



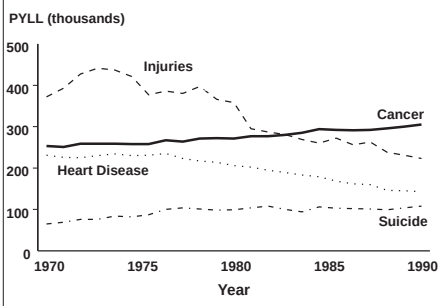
Source: *Statistics Canada. Health Indicators, 1994.*

Exceptions to this improving trend are the fairly stable death rates due to suicide, and deaths from all types of cancer combined. Rising rates of lung cancer and the aging of the population have offset reductions in death rates for many types of cancers, such as leukemia and colorectal cancer.

To identify trends in preventable diseases and conditions, indicators such as Potential Years of Life Lost are often used. Potential Years of Life Lost (PYLL) is the number of years of life "lost" when a person dies prematurely before a specified age, say age 75. A person dying at age 25, for example, has lost 50 years of life (75 - 25 = 50 PYLL). PYLL helps to identify causes of death which occur in younger age groups and which can, in theory, be prevented or postponed.

Cancer has been the leading cause of PYLL since 1984. Cancer and suicide are the only major causes of PYLL to have increased since 1970. PYLL due to injuries have declined dramatically. Heart disease, respiratory disease, and stroke have also declined in their share of PYLL (Figure 25).

Figure 25
Potential Years of Life Lost,
Canada, 1970-1993



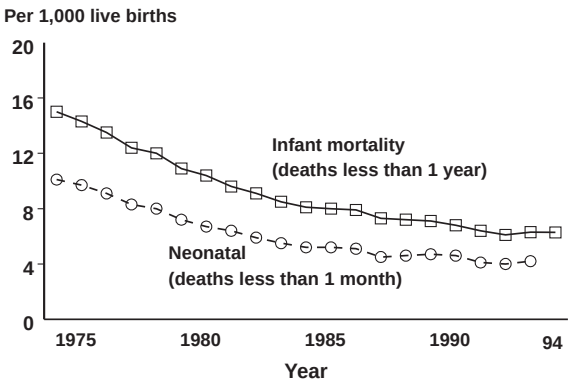
Source: Statistics Canada. Health Indicators, 1996 edition

For most babies and their families, pregnancy and infancy are a relatively healthy period. Unfortunately, about 6 out of every 1,000 newborns die in the first year of life.

The rate of infant mortality (deaths within the first year of life) has declined substantially in this century, although the pace of progress has slowed in recent years. The rate increased in 1993, due to an increase in neonatal deaths (deaths in the first month of life), then fell slightly in 1994 (Figure 26).

Death rates and PYLL show that we have made progress in reducing deaths. However, many Canadians still die from preventable or postponable causes.

Figure 26
Infant Mortality Rates, Canada, 1974-1994



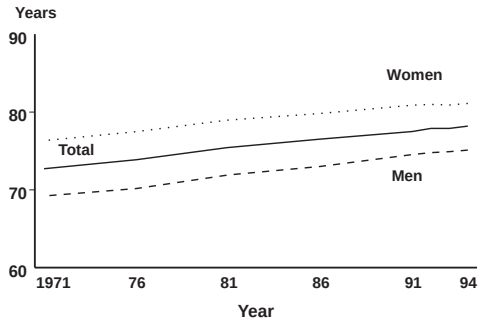
Source: *Statistics Canada. Health Statistics Division. Births and Deaths.*

Length of Life

On average, a baby girl born in Canada today can expect to live 81 years, while a baby boy will live 75 years.

Life expectancy has increased dramatically in the 20th century, and has continued to climb, though more slowly, in recent years (Figure 27). In 1993, there was a very slight decrease in life expectancy, raising concern that the improving trend might be ending. However, it now appears that the 1993 figures were an aberration caused by an unusually high number of influenza deaths in March and April of that year.

Figure 27
Life Expectancy at Birth, Canada, 1971-1994



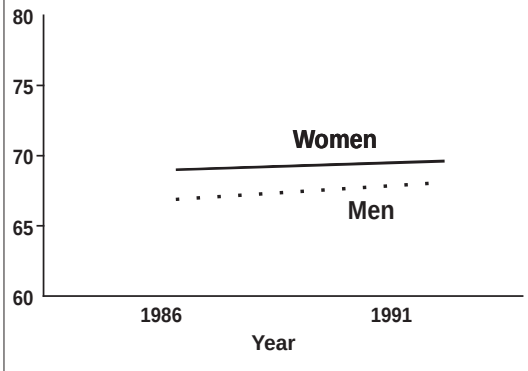
Source: *Statistics Canada. Health Statistics Division. Births and Deaths.*

Past improvements in economic and living conditions, infectious disease control, and improved health care have contributed to the increases in longevity. Although we may eventually reach a biological limit to length of life, whether life expectancy will continue to rise in the years ahead depends on our current and future efforts to improve the factors affecting health.

Life expectancy measures years of life. Related indicators are being developed to tell us whether those years of life are spent in good health. One example is disability-free life expectancy, which measures the years of life spent in various states of independence. On this measure, a Canadian child born in 1991 could expect to spend 69 years – almost 90% of the total life span – free from disabling health problems.

Measures such as disability-free life expectancy, quality-adjusted life expectancy, and health expectancy are still evolving, and long time trends are not available. Life expectancy and related indicators do not change with great speed, however, so it is not expected that large changes will be observed from year to year. Between 1986 and 1991, disability-free life expectancy increased by 1.2 years for men and by 0.6 years for women (Figure 28).

Figure 28
Disability-free Life Expectancy, Canada, 1986 and 1991



Source: *Wilkins, Chen, & Ng, 1995.*

How does Canada's Health Status Compare with Other Countries?

On many indicators, Canada enjoys a standard of health that is among the best in the world. For a few indicators, such as low birthweight, potential years of life lost, and AIDS, Canada ranks about mid-range among industrialized nations, indicating that there are areas for improvement.

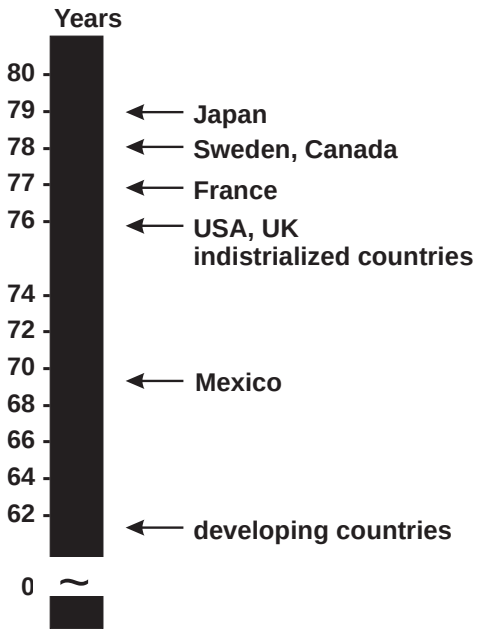
On average, Canadians live longer than people in most of the world's countries. However, there are a few countries, such as Japan and Sweden, that have achieved a longer life expectancy (Figure 29).

International Comparisons

In making international comparisons, countries can be grouped in various ways. Comparisons used in this report are based on data for 30 "industrialized countries" or the 25 "OECD countries" – countries which are members of the Organization for Economic Cooperation and Development (OECD). These groupings consist of countries which are reasonably similar to Canada in terms of economic development. A list of the industrialized and OECD countries may be found in Appendix C.

To keep the graphs as simple as possible, most of the time trend graphs in this report show data for only four countries: Canada, the United States, Japan, and Sweden. On many health indicators, Japan and Sweden have achieved the best rates in the world, and provide a convenient gold standard or benchmark for measuring Canada's level of health. The United States, our nearest neighbour, is also shown for comparison purposes.

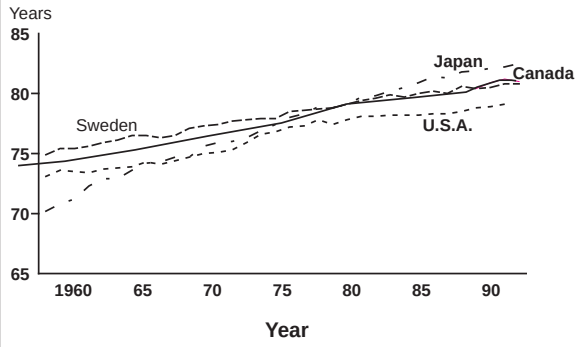
Figure 29
Life Expectancy, 1993



Source: *UNICEF. The State of the World's Children, 1995.*

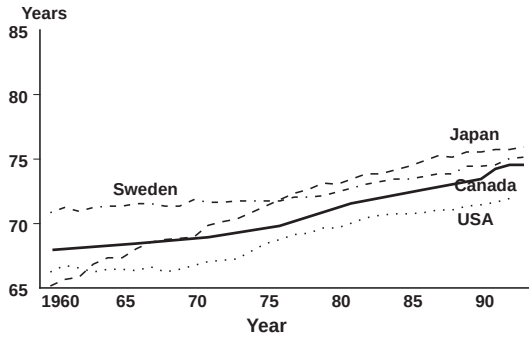
In most industrialized countries, life expectancy has continued to rise steadily in recent decades. Since the 1960s, Canada's life expectancy for women has increased to approximately the same level as Sweden's. Japan has made impressive gains in life expectancy, for both men and women, and has become the world leader on this indicator (Figures 30 and 31).

Figure 30
Life Expectancy at Birth - Women, Canada and Selected Countries, 1960-1993



Source: *OECD, 1995, OECD Health-Data, version 3.6.*

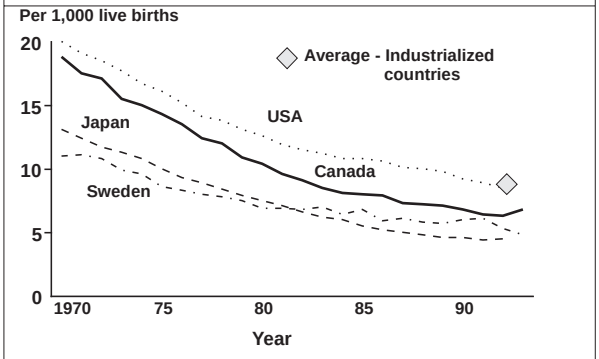
Figure 31
Life Expectancy at Birth - Men, Canada and Selected Countries, 1960-1993



Source: *OECD, 1995, OECD Health-Data, version 3.6.*

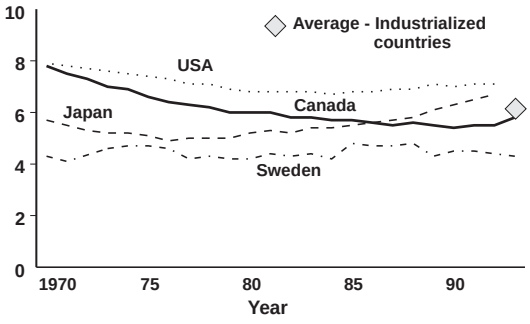
In infant deaths, Canada's rate has been consistently better (lower) than the average for industrialized countries (Figure 32). However, several countries have achieved lower rates. Countries with fewer infant deaths include Finland, Iceland, Sweden, Switzerland, Norway, Ireland, Germany, and Japan.

Figure 32
Infant Death Rate, Canada and Selected Countries, 1970-1993



Source: *OECD Health-Data, version 3.6, UNICEF, The State of the World's Children 1995.*

Figure 33
Low Birthweight Rate, Canada and Selected Countries, 1970-1993



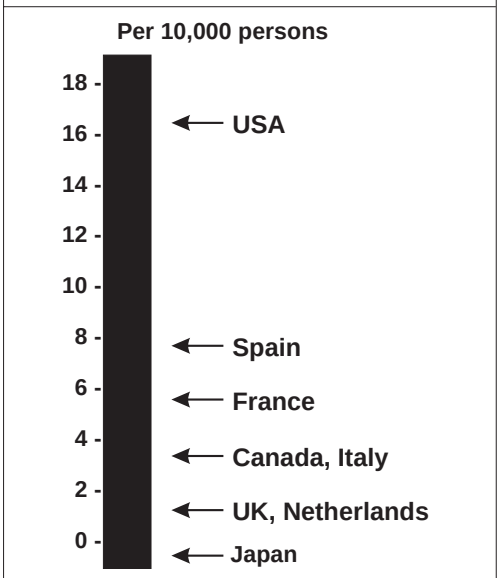
Source: *OECD Health-Data, version 3.6, UNICEF, The State of the World's Children 1995.*

With regard to low birthweight babies (Figure 33), Canada ranks about mid-range among industrialized nations. As with infant deaths, a number of European countries have achieved low birthweight rates which are lower than Canada's.

In 1994, Canada's cumulative rate of AIDS infections was 3.8 per 10,000 persons. In comparison with other industrialized countries, Canada's AIDS rate falls mid-way between the extremes of Japan, with a very low rate, and the United States, which has a much higher rate (Figure 34).

In workplace injuries, Canada seems to compare poorly with other industrialized countries, based on available statistics. Occupational injuries rose by about one-third in Canada from 1955 to 1987, while rates were declining in most other OECD countries (OECD, 1989). There are difficulties, however, in obtaining international data on this topic and in making data comparable to Canadian statistics. Lack of information about work-related injuries and illnesses is a major impediment to monitoring the health and safety of our workplaces.

Figure 34
AIDS Cases (Cumulative), Canada and Selected Countries, 1994



Source: *Health Canada, January 1995. Quarterly Surveillance: AIDS in Canada.*

Is Health Shared Equally by All Canadians?

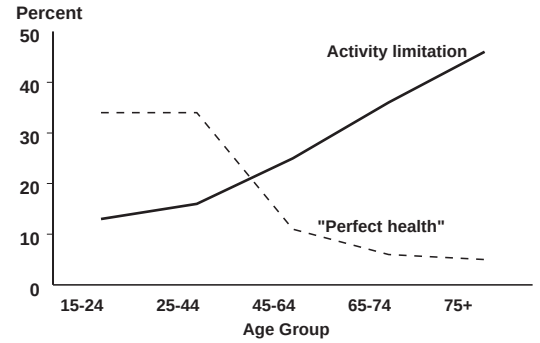
By many measures, Canadians have a standard of health that is improving and that compares favourably with other industrial countries. This high standard of health, however, is not shared equally by all sectors within our society. On most aspects of health, there are differences by age, gender, level of income and education, and geographic area.

Age-Related Differences

Our health depends, in part, on our age and stage of life. Human biology and social factors mean that children and youth will have different health and disease concerns than people in their older years.

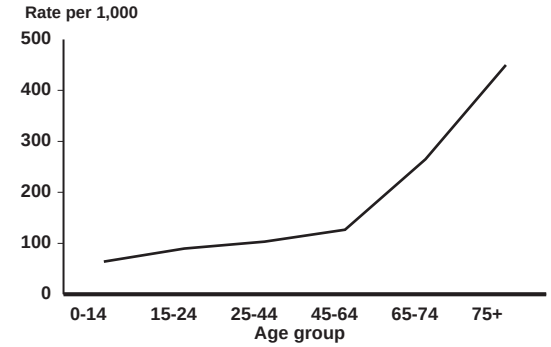
Conventional wisdom tells us that health declines with age. It is not surprising, then, that most indicators of physical health and function show a decline in health with passing years. Older Canadians are more likely to suffer from chronic conditions, to be limited in their daily activities (Figure 35), and to have illnesses that are serious enough to require hospitalization (Figure 36). With a growing proportion of our population being in the older age groups, it will be important to pay continued attention to the health and well-being of older Canadians.

Figure 35
Physical Health Declines with Age, Canada, 1994-95



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

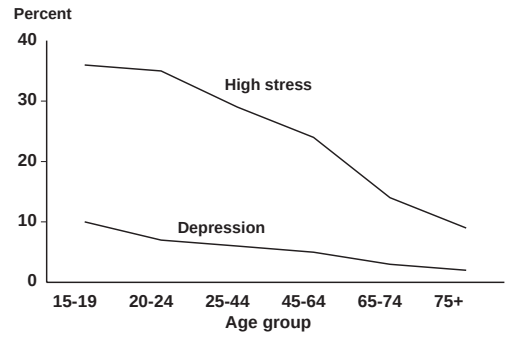
Figure 36
Increased Hospitalizations with Age, Canada, 1992/93



Source: *Statistics Canada. Health Statistics Division. Health Indicators, 1996 edition.*

Many indicators of emotional health, however, show improvements with age. Indicators such as depression, stress, psychological well-being, and job satisfaction, show that it is youth, not older Canadians, who are most at risk when it comes to emotional health (Figures 37 and 38).

Figure 37
Decreased Stress and Depression with Age, Canada, 1994-95



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

Figure 38
Increased Psychological Well-being and Job Satisfaction with Age, Canada, 1994-95

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

Youth ages 15 to 24 are also the age group at greatest risk for certain diseases and causes of death due to risk-taking behaviours, such as sexually transmitted diseases and alcohol-related traffic injuries.

The indicators we have available show that youth is not always a healthy and care-free stage in life. Many young people are struggling with feelings about themselves, their relationships, and their future prospects. The particular special needs of children and youth demand attention, or the negative consequences for children – and for all society – will be long-lasting, precisely because they are so young.

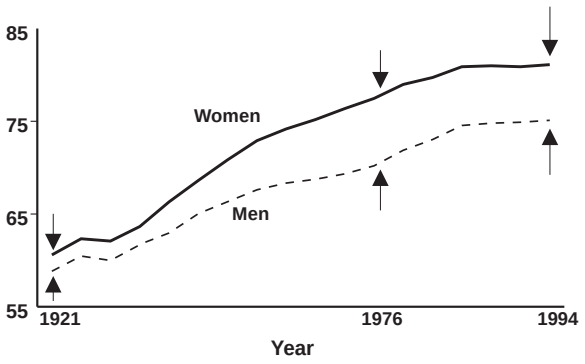
Male-Female Differences

On average, women live longer than men. The longer life expectancy of women relative to men is found throughout all developed countries. Whether women live better in health terms is less clear.

Men die at higher rates than women – and at earlier ages – from three principal causes: heart disease, lung cancer, and injuries. This appears to be explained by the fact that women more often make healthier lifestyle choices (less smoking, less drug or alcohol use, less drunk driving), are less likely to be employed in risky occupations, and are protected from heart disease by the naturally-occurring female hormone, estrogen.

Since the 1970s, the average life expectancy for men has increased more rapidly than it has for women. As a result, the gap in life expectancy between men and women has begun to decrease, from 7.3 years in 1976 to 6 years in 1994 (Figure 39). As smoking rates increase among women, and as risk behaviours in men continue to show improvement, the gap in life expectancy between men and women may well narrow further.

Figure 39
Life Expectancy at Birth, Canada, 1921-1994

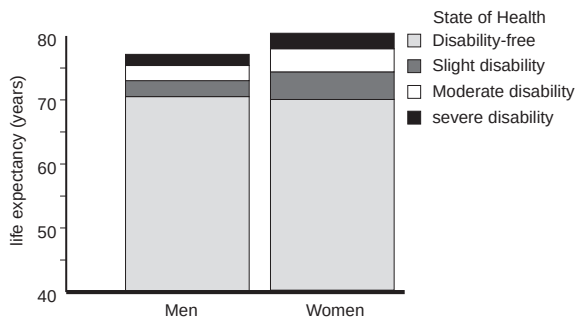


Source: *Statistics Canada. Health Statistics Division. Births and Deaths.*

To some extent, women's advantage in length of life is offset by lower quality of life, as the additional years lived by women are frequently accompanied by at least some degree of poor health.

Compared to men, women can expect to live an additional 1.5 years free of disabling health problems ("disability-free") and 5 years about equally divided among slight, moderate, and severe disability (Figure 40).

Figure 40
Disability-free Life Expectancy, Canada, 1991

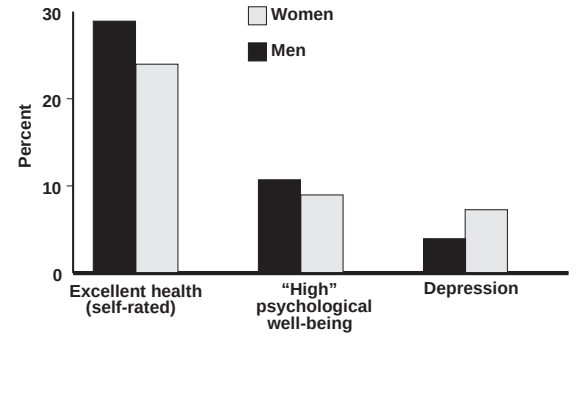


Source: *Wilkins, Chen, & Ng, 1995.*

On measures such as self-rated health, psychological well-being, and depression, women do not score as well as men, on average (Figure 41). Young women, in particular, are more likely to feel lonely or depressed and to have lower self-esteem than young men. Yet, women have more extensive networks of social support than men.

Although these indicators point to differences in the health status of men and women, there is still much to be learned about how to interpret this information and how to apply it to improving the health of both men and women.

Figure 41
Male-Female Differences in Health and Well-being, Canada, 1994-95



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

Differences According to Living and Working Conditions

Better living and working conditions are associated with better health. The rich are healthier than the middle class, who are in turn healthier than the poor. The well-educated are healthier than the less-educated, the employed are healthier than the unemployed, and so on. These well-known relationships are found in Canada, as in virtually every other society.

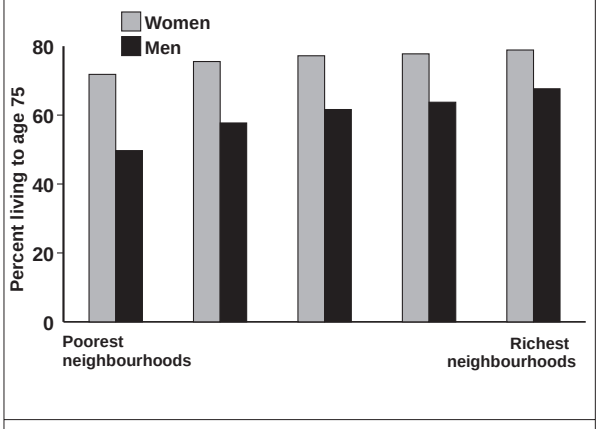
Income and Social Status

Higher incomes are related to better health not only because of the ability to purchase adequate housing, food, and other basic necessities. A higher income also means more choices and a feeling that we have more control over decisions in our life. This feeling of being in control is basic to good health.

Canadians in the highest income bracket live longer than those in the bottom bracket. This is true for both men and women, although more so for men. About 50% of men living in the poorest neighbourhoods will live to age 75, while almost 70% of men from the richest neighbourhoods will reach this age (Figure 42).

The relationship between health and income is not just a matter of being very rich or very poor. There is also a gradient in health status, such that health increases at each step up the hierarchy in income, education, or social status.

Figure 42
Chances of Living to Age 75, Urban Canada, 1991



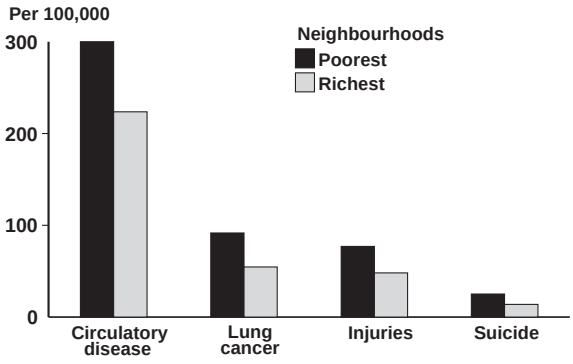
Source: *Wilkins, 1995.*

Neighbourhood Income Level

In Figure 42, "poorest neighbourhoods" are those neighbourhoods (census tracts) with the highest poverty rate. Death certificates do not contain information about the income level of individuals, but their place of residence is recorded. In analyzing health and social statistics, neighbourhood income level is often used to represent income level of individuals.

A gap between the rich and the poor exists for most types of illnesses and for almost all causes of death (Figure 43) . In other words, the poor – and other groups suffering from high death rates – do not suffer more from any one disease or a few particular diseases. Rather, people who are living at a socio-economic disadvantage are biologically more susceptible to becoming sick and dying. They exhibit a general increased susceptibility to whatever diseases are currently "going around".

Figure 43
Death Rates, Men in Richest and Poorest Neighbourhoods, Urban Canada, 1991



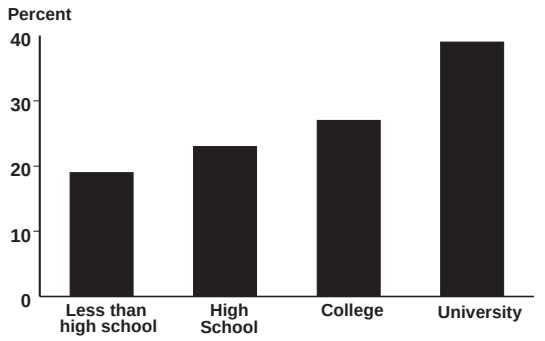
Source: *Wilkins, 1995.*

The relationship between income and health may be surprising to many of us. After all, we have a health system that provides almost equal access to care for all Canadians, regardless of their income. Even after several decades of medicare, inequalities in health status within our society still persist. Clearly, there is something related to higher income and social status that provides a buffer or defence against disease, or something about lower income and social status that undermines the body's defences. This provides further evidence that health services are not the only – or even the most important – influence on health.

Education

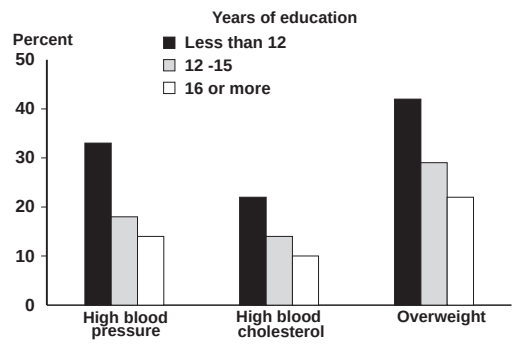
Health status improves with one's level of education. On average, as education increases, self-rated health status improves (Figure 44), while activity limitation and the number of workdays lost due to illness or injury decrease. And, those with a university degree are about half as likely to have high blood pressure, high blood cholesterol, or to be overweight, as are those with less than high school education (Figure 45).

Figure 44
Excellent Health (self-rated), Canada, 1994-95



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

Figure 45
Education and Health Risk Factors, Canada, 1994-95



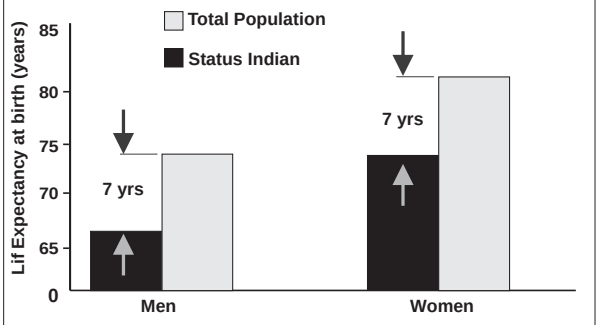
Source: *Provincial Heart Health Research Group (1986-1992), Statistics Canada. National Population Health Survey 1994-95.*

A person's education, occupation, and income are all indicators or markers of his or her living and working conditions. These markers are closely related, because, on average, people with higher levels of education are more likely to be employed, to have jobs with higher social status, and to have stable incomes. The Technical Appendix to this report focuses on health differences among persons with different levels of formal education, but the findings apply equally well to differences in income or occupational status.

Aboriginal Health

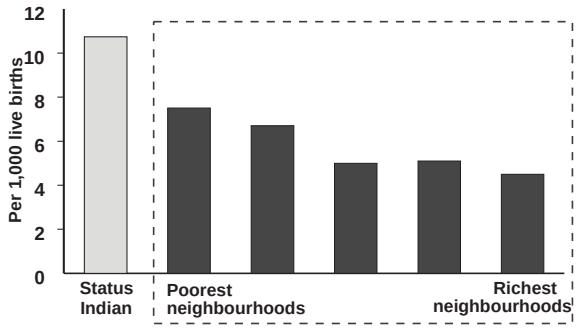
Canada's Aboriginal people, as a group, are the most disadvantaged of our citizens, and have the poorest overall health status. Although Aboriginal people have made significant gains in health in recent years, on average, Aboriginal people still have seven years less life expectancy than the overall Canadian population (Figure 46), and almost twice as many infant deaths – a higher rate than the poorest neighbourhoods in urban Canada (Figure 47).

Figure 46
Life Expectancy, Status Indian (1990) and Total Population, Canada, (1991)



Source: *Indian and Northen Affairs (Status Indians). Statistics Canada, Births and Deaths, 1993 (total population).*

Figure 47
Infant Mortality Rates, Status Indians and Urban Canada by Neighbourhood Income Level, (1991)



Source: *Medical Services Branch, Health Canada (Status Indian rate). Wilkins, 1995 (rates by neighbourhood income level).*

Aboriginal Peoples

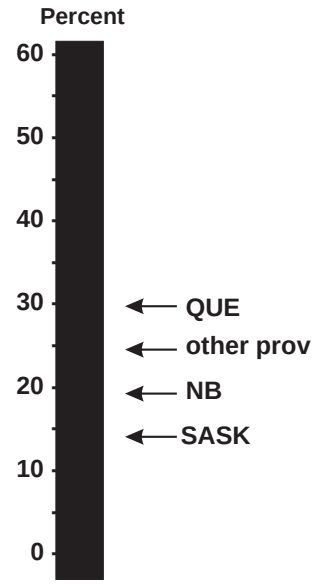
Aboriginal peoples include Indian peoples (Status and non-Status), Inuit peoples, and Métis peoples. Aboriginal peoples are culturally diverse and geographically dispersed. Because Status Indians have recognition in Canadian law, their status is occasionally identified in health databases. Thus, much of the data about the health of Canada's Aboriginal people, such as that shown in Figures 46 and 47, are based on the Status Indian population. These data will not necessarily reflect the health status in all Aboriginal communities.

Provincial differences

On most health status indicators, there are very large contrasts between provinces. In some cases, the difference is two-fold or more between the first and last-ranked province. For example, only 18% of Saskatchewan residents view their health as “excellent”, compared to 29% of those living in Quebec (Figure 48). On average, workers in the Atlantic provinces are most likely to be very satisfied with their jobs (Figure 49). Provincial averages for the number of disability-days in the past two weeks cover a very large range, from 0.64 days in Newfoundland and Quebec to 1.05 days in Nova Scotia (Figure 50). There is also a wide range in the reported rates of diseases and conditions, such as depression, back problems, and other chronic health problems.

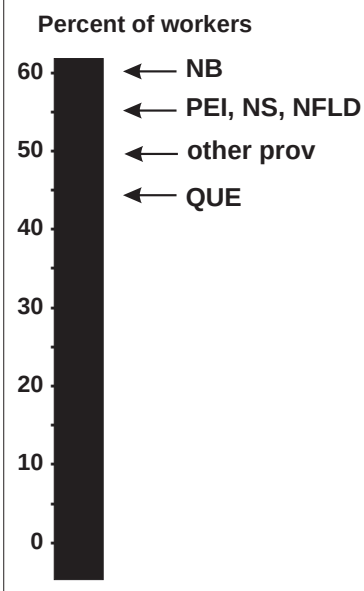
No province is consistently healthy across all of the available indicators, nor does any score consistently low. Indicators such as self-rated health, job satisfaction, and disability-days are relatively new indicators of health. More work will be needed to understand why some areas of the country appear to be healthier than others, based on these specific aspects and indicators of health.

Figure 48
Excellent Health (self-rated), Age 12+, 1994-95



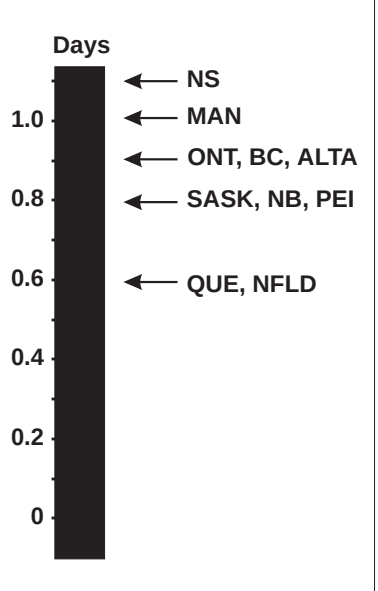
Source: *Statistics Canada. National Population Health Survey 1994-95.*

Figure 49
Very Satisfied with Job, Working Population, Age 15+, 1994-95



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

Figure 50
Disability-Days in Past Two Weeks, 1994-95



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

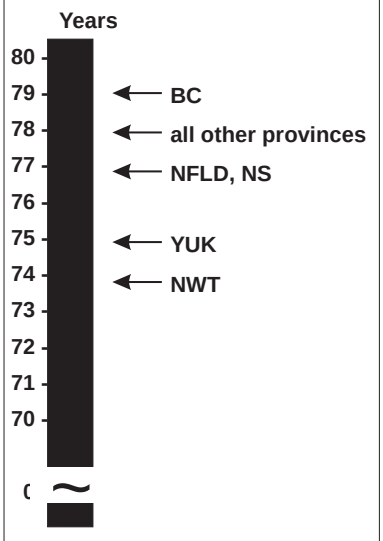
NOTE: For the above indicators, and for many of the other indicators in this report, comparable data are not available for the Yukon and Northwest Territories.

Traditional health status indicators, which measure life expectancy and death rates, show a more consistent pattern, one in which health status differences can be explained, to some extent, by differences in social and economic conditions.

Provincial differences in life expectancy, infant mortality, and overall death rates have diminished over the past 40 years. This convergence reflects, in part, policies designed to reduce social and economic disparities between provinces (Millar, 1995). Although the differences between provinces have narrowed, some gaps remain.

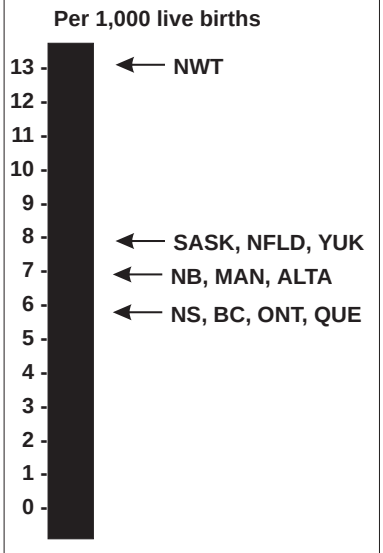
On average, residents of western Canada have longer life expectancy and lower overall death rates than residents of Atlantic Canada (Figure 51). Infant mortality rates fluctuate somewhat from year to year, with Quebec and Ontario consistently having lower rates than other provinces (Figure 52). Ontario has been relatively more successful in preventing premature deaths, as measured by Potential Years of Life Lost (Figures 53 and 54). Residents of the Yukon and Northwest Territories have much poorer health status than other parts of the country, based on these particular indicators.

Figure 51
Life Expectancy, 1994



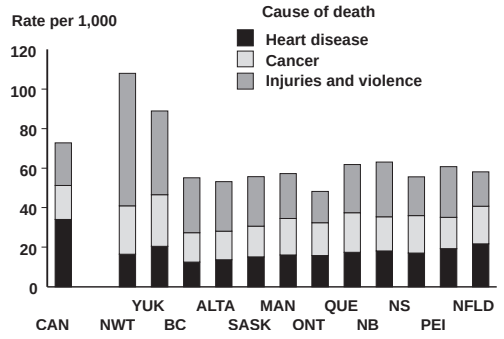
Source: *Statistics Canada. Births and Deaths, 1994.*

Figure 52
Infant Mortality, Three Year Average, 1991-1993



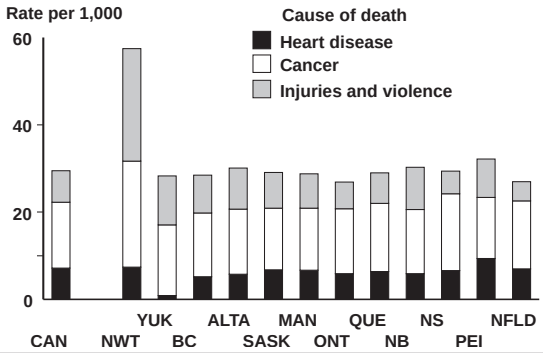
Source: *Calculated with data from Statistics Canada, Births and Deaths, 1993.*

Figure 53
Potential Years of Life Lost Before Age 75, Men, 1993



Source: *Laboratory Centre for Disease Control, Health Canada.*

Figure 54
Potential Years of Life Lost Before Age 75, Women, 1993



Source: *Laboratory Centre for Disease Control, Health Canada.*
Note: *Rates of PYLL are much higher for men than for women. Therefore, the graph scales differ in Figures 53 and 54.*

It is important to note that data at the provincial and territorial level will mask differences within a given province or territory. Often, there are large gaps in health status between geographic areas within a province. In British Columbia, for example, people living in northern and rural communities have five years less life expectancy and twice as many infant deaths as those living in other parts of the province (Provincial Health Officer, 1996).

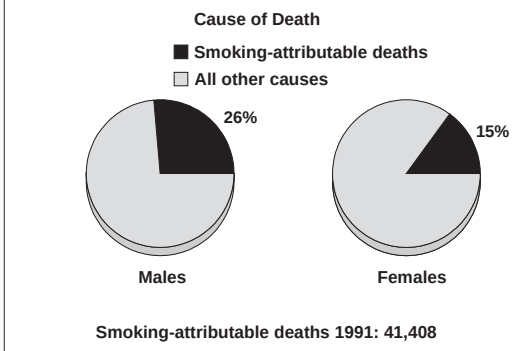
Is There Potential for Improvement?

For some health indicators, there is considerable potential for improvement through policy or action. Other indicators are less amenable to change, using the knowledge we currently have.

For many diseases and health problems, we have considerable evidence about the disease or health condition, the proportion of cases or deaths that can be attributed to various risk factors, and the effectiveness of prevention methods.

For example, we know that smoking is the number one preventable cause of death across Canada. In 1991, smoking claimed the lives of more than 41,000 Canadians – 113 deaths each day (Figure 55). Experience in Canada and in other countries has shown that a comprehensive program that includes legislation, school-based education, media, advocacy, cessation programs, and regular surveys to monitor smoking behaviour can be effective in reducing smoking-related illness.

Figure 55
Percent of Deaths due to Smoking, Canada, 1991



Source: *Makomaski Illing & Kaiserman, 1995.*

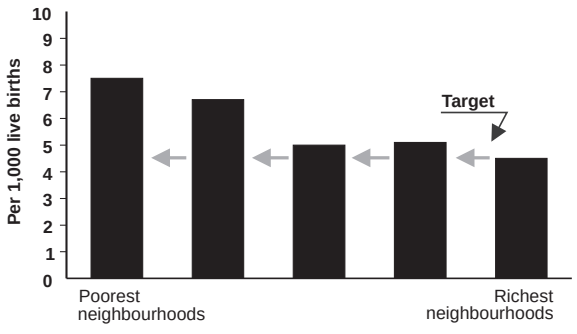
Similarly, in the area of injury prevention, experts believe that up to 90% of all injuries are preventable, if known methods of prevention are applied. This knowledge can be used to identify areas for improvement and to set targets for reductions in specific causes of injuries, such as traffic crashes, falls, drownings, and poisonings.

One way to set objectives and targets is to look at what has already been achieved by the healthiest communities, population groups, or countries, and by using these as a gold standard or benchmark to aim for.

For example, the rate achieved by the highest income group is theoretically achievable by all groups in our society (Figure 56). If all income groups achieved the infant mortality rate of the highest income group (4.5 per 1,000 live births), 700 infant deaths would be prevented in Canada each year.

If all Canadians achieved the same death rates as the highest income group, for all causes of death, it is estimated that over one-fifth of all years of life lost before age 65 could be prevented (Wilkins, 1995).

Figure 56
Infant Mortality Rates by Income Level, Urban Canada, 1991



Source: *Wilkins, 1995.*

Similarly, the province or country with the best rate can be used as a benchmark. Ontario and Quebec have consistently had low rates of infant mortality, western provinces have the longest life expectancy, and workers in the Atlantic provinces have the highest rates of job satisfaction. Provinces with good results on a particular aspect of health status can be studied to identify strengths for others to emulate.

Sweden, with a 35-year history of proactive injury prevention programs, is a world leader in injury prevention and has reduced injury deaths to half the Canadian rate. Several European countries have achieved a low birthweight rate that is better than Canada's current rate of 5.7%. Japan has achieved the longest life expectancy in the world, and so on. The achievements of these best countries can be studied to identify areas for action in Canada.

For measures of well-being, such as psychological well-being, job satisfaction, or self-rated health, there are fewer data to assist in setting targets for improvement.

Identifying areas for improvement can be done by consulting with a range of groups, including health professionals and provider groups, consumer groups, communities, and the general public. This consultation approach would result in a consensus on the goals, specific objectives, and targets that Canadians would like to achieve. The health goals being developed by most provinces provide an example of this approach.

Influences on Health

How do we Measure the Factors that Influence Health?

The factors that influence health are very broad, and they are not always easy to define and measure. For example, we know that most cases of lung cancer are caused by smoking, a lifestyle behaviour. However, an individual's decision to smoke is influenced by many factors, including peer pressure, media pressure, the ability to cope with stresses in daily life, smoking policies in the workplace and in public places, the availability and price of cigarettes, the addictive nature of tobacco, and the availability of effective methods to help smokers quit. Thus, to measure the various factors that contribute to the occurrence of lung cancer, there are many aspects to consider, and numerous indicators that could be collected.

Living and Working Conditions

The factors that support health include such things as a thriving economy, meaningful work, adequate and equitable incomes, physical safety, positive conditions in our schools and workplaces, supportive family and friends, and quality parenting in early childhood. Various indicators are used to track these social and economic conditions. Perhaps the most commonly measured aspects are income, employment, and educational levels, where the relationship to health has been well-demonstrated.

Physical Environment

In recent years, some indicators have been developed to measure the safety, quality, and sustainability of our physical environment. These include indicators for which there is a direct link between the environment and human health, such as air pollution levels or contamination in drinking water or food supplies. Other indicators that reflect the sustainability of the environment – the extent to which we are sustaining our water, fuel, forests, fish, and wildlife for future generations – are important as well. Related to this is the importance of maintaining our "biodiversity" – Canada's rich variety of plant and animal species and habitats.

Personal Health Practices and Coping Skills

For many of the lifestyle practices that put people at risk, there exists a considerable amount of information. For example, we know a great deal about the smoking behaviour of Canadians, as well as their patterns of alcohol use and physical activity. Other behaviours, such as eating habits and sexual practices, as well as topics like coping skills, social support, and parenting, are more complex and challenging to measure.

Biology and Genetic Endowment

A person's genetic inheritance can create genetic disorders and birth defects. Our genetic make-up affects our general hardiness and can determine risk for certain illnesses. Efforts are being made in research, emerging technology, and genetic counselling, but these are not well enough developed to have a significant effect on the overall health status of the population. At this time, there are few indicators of human biology that are widely used in assessing the health of a community.

Health Services

To achieve and maintain health, we must have health services that effectively promote health, protect health, relieve pain and suffering, restore function, and provide compassionate care for the vulnerable. For most health services, data about the numbers and types of services provided are routinely collected. However, there are gaps in our information about who gets which services for what purpose, and whether those services resulted in improved health status and quality of life.

Sources of Information

The sources of information used to measure influences on health are even more numerous and diverse than those used to measure health status. The Census of Canada and government databases provide ongoing information about the population, social and economic trends, and the state of the environment. Surveys, such as the recent National Population Health Survey, provide information about people's health knowledge, attitudes, behaviours, and social influences. Health records, such as records of hospital admissions and discharges, are used to produce statistics about the use of health services. Research uncovers scientific evidence about the factors that determine health, as well as information about the potential impact of programs and services intended to improve health.

It is important to note that none of these indicators, be they the incomes people receive or the number of times they are hospitalized, can fully describe the lives people lead. Numbers and rates must be supplemented with information about people's day to day lives, their values, preferences, and expectations. Interviews, focus groups, and public opinion surveys can be used to gather this type of information.

Not all factors that influence health have been subject to the same degree of monitoring and assessment. Tracking the state of the economy, for example, has a long history. Efforts to track the well-being of communities, on the other hand, are only just beginning. What gets measured tends to get attention, in terms of policies and actions. Because of this, we must continue to identify and pursue the best possible types of information, so we can measure the degree to which Canada provides a healthy environment, in the broadest sense of the term.

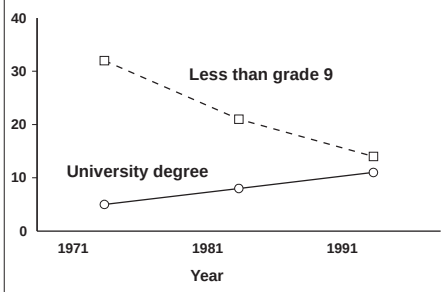
Are the Factors that Affect Health Improving?

Living and Working Conditions

In several areas, there have been improvements in the factors that create more healthy living and working conditions.

Educational levels are rising. More people have post-secondary education and university degrees, and fewer have less than a grade 9 education (Figure 57).

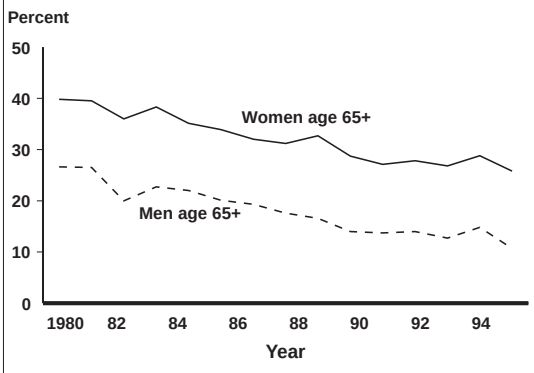
Figure 57
Highest Level of Schooling, Age 15+, Canada



Source: *Statistics Canada. Census Division. Educational Attainment and School Attendance. The Nation, 1991.*

Fewer persons over the age of 65 are living in poverty. Older Canadians have experienced a consistent downward trend in the poverty rate, which dropped from approximately one-third of seniors in 1980 to fewer than one-fifth in 1994. The gap between women and men has not changed appreciably. Older women remain much more likely to have low incomes than older men (Figure 58).

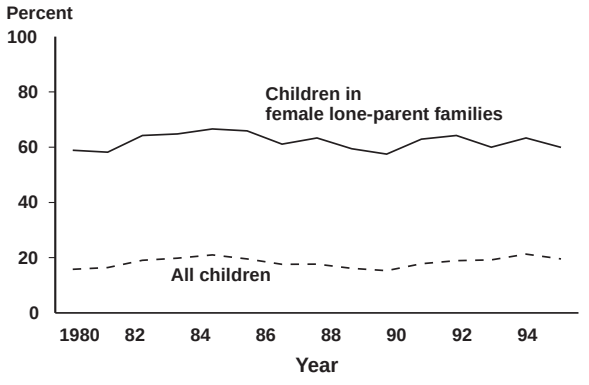
Figure 58
Low Income Rates, Persons Age 65+, Canada, 1980-1994



Source: *Statistics Canada, 1996. Low Income Persons, 1980 to 1994.*
Note: Figures 58 and 59 show the percent of people with incomes below the Statistics Canada low income cut-off point. This indicator is sometimes referred to as the low income rate or poverty rate. Rates fluctuate from year to year, in part due to survey sample size.

Child poverty rates have remained at roughly the same level over the past ten years (Figure 59). In 1994, Statistics Canada estimated that 1.4 million Canadian children – one child in every five – lived in a low income family. Among lone female-parent families, more than half a million children – three children in every five in this group – were low income.

Figure 59
Low Income Rates, Children, Canada, 1980-1994

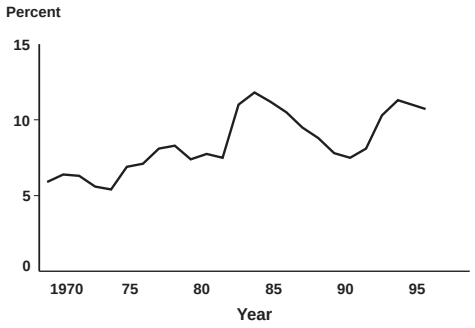


Source: *Statistics Canada, 1996. Low Income Persons, 1980 to 1994.*

Some of the economic factors that impact health show a worsening situation.

Unemployment rates have fluctuated, but have generally increased, from 6% of the workforce in 1970 to 10.6% – 1.5 million persons unemployed – in 1995 (Figure 60).

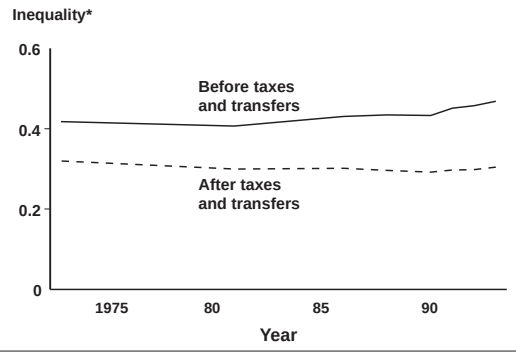
Figure 60
Unemployment Rate, Age 15+, Canada



Source: *Statistics Canada. Health Indicators, 1994.*

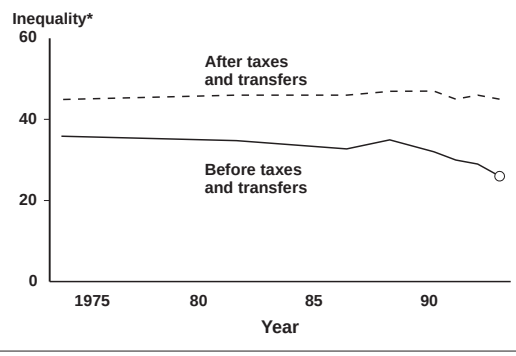
In terms of earned income (before taxes and transfers), income inequality – the gap between the rich and the poor – is growing (Figure 61). As more wealth is acquired by fewer people, the low income population grows, and the size of the middle class shrinks (Figure 62). So far, the social safety net – through income tax, unemployment insurance, social assistance, and other transfer programs – has been able to offset the trend toward inequality in earnings. It is possible that the social safety net will not be able to continue to compensate for these growing inequalities. This may result in worse quality of life for the population.

Figure 61
Income Inequality, Canada, 1973-1993



Source*: Wolfson, 1995.*
** Gini coefficient, a statistic used to measure the inequality in income distribution. The higher the number, the greater the inequality.*

Figure 62
Size of Middle Class, Canada, 1973-1993



Source*: Wolfson, 1995.*
** Percent of families in the middle class (with incomes between 75% and 150% of the median income).*

Physical Environment

Through regulations, legislation, policies, and changes in public behaviours, Canada has begun to tackle many issues in the physical environment. As a result, many indicators show improvement in the state of our environment. However, some problems, such as global warming and acid rain, will not be solved within one generation.

The physical environment can pose a direct and immediate threat to human health, through natural disasters such as earthquakes or floods, and through exposure to human-made contaminants in the air, water, food, or soil.

Airborne particles are perhaps the most important outdoor air pollutant from a health perspective. Even though we have reduced the levels of many pollutants, and are setting new guidelines, evidence suggests that Canadians are still adversely affected by exposure to air pollutants.

Overall levels of larger airborne particles (total suspended particles or TSP) in Canadian cities have been steadily decreasing since 1979 (Figure 63). However, attention is now turning to finer particles, which can pose a significant threat to human health.

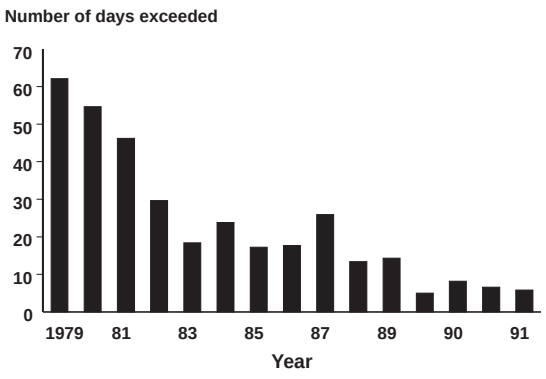
Particles smaller than 10 microns (1 micron is one millionth of a metre) in diameter – sometimes called fine particulate matter or PM_{10} – can be inhaled and deposited in our lungs. High levels of PM_{10} can cause adverse health effects, resulting in respiratory symptoms and increases in school absences, emergency room visits, hospitalizations, and deaths. A national PM_{10} air quality objective is being developed by Health Canada, Environment Canada, the provinces, and municipalities. An indicator and data based on PM_{10} may be available by 1997.

Increasingly, steps are being taken to improve the quality of indoor air.

Smoke-free policies protect non-smokers from the harmful effects of environmental tobacco smoke. In schools, child care centres, recreation centres, and other public places, smoke-free policies also help to decrease the negative modelling impact on youth, and thus decrease the likelihood that children will take up smoking. In recent years, more schools have instituted smoke-free policies, and fewer people are exposed to second-hand smoke at work (Figure 64). However, many Canadians are still exposed to environmental tobacco smoke.

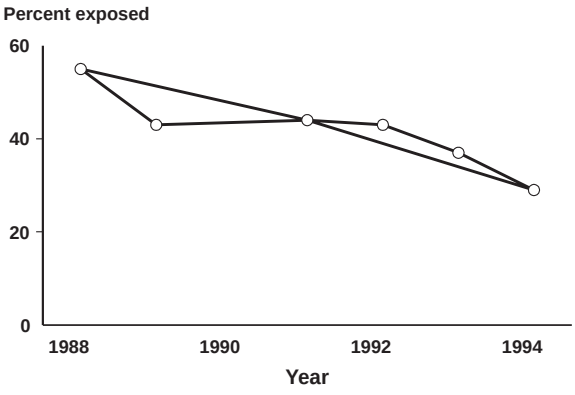
Like air, the basic elements of water, food, and soil are also subject to pollution. Water quality can be a fragile thing, and sometimes a very small

Figure 63
Days with Airborne Particles Exceeding National Objective, Canada, 1979-1993



Source: *Graph based on data provided by the Environmental Technology Centre, Environment Canada. In Environment Canada, State of the Environment Bulletin, 1996 (DRAFT).*
Note: *The graph shows the annual average number of days Canadian urban air monitoring stations exceeded the national air quality maximum acceptable objective (120 millionths of a gram in a cubic metre of air) for TSP. TSP is essentially dust, smoke, and pollen whose particles are less than 100 micron in diameter, about the thickness of an average human hair.*

Figure 64
Exposure to Smoke at Work, Workers Age 15+, Canada, 1988-1994



Source: *Canada Health Monitor (1988-1993). Statistics Canada, Survey of Smoking in Canada, Cycle 2 (1994).*
Note: *Definitions for exposure vary. See Report on the Health of Canadians: Technical Appendix for details.*

amount of a contaminant can greatly affect a large volume of water. Soils and underlying aquifers can become contaminated through pesticides and other agricultural activities, oils and asphalt applied to roads, industrial pollution, or garbage. While most serious illnesses due to contaminated food or water occur in less developed parts of the world, we are by no means free of these problems in Canada.

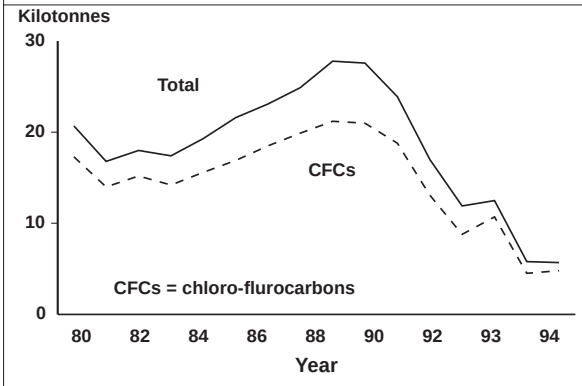
Theoretically, it is possible to obtain a national picture of outdoor air quality, because concentrations of common air pollutants are being monitored across the country, and information is fed into a national database. The safety and quality of our drinking water, recreational water, food, and soil are monitored at provincial and community levels, but there are few national collection systems for such data at this time.

In addition to protecting our bodies from contamination, good health requires a sustainable and ecologically diverse environment. In the longer term, if the economy grows at the expense of environmental degradation and depletion of natural resources, human health will suffer. Thus, it is important that we pay attention to the quality, availability, and sustainability of our natural resources.

The rates at which we generate pollution have been decreasing in recent years. However, many polluting substances linger in the environment, and will continue to have an impact on the environment for generations to come.

For example, chloro-fluorocarbons (CFCs) and other ozone-depleting substances allow higher levels of harmful ultraviolet radiation from the sun to reach the earth's surface, causing skin cancer and cataracts in humans, as well as harming fish and plant life. As the result of a 1987 international protocol phasing out the production of CFCs, the production of these pollutants has declined steadily (Figure 65). However, chemicals already in the air will continue to destroy ozone for as much as 50 to 100 years.

Figure 65
New Supplies of Ozone-Depleting Substances, Canada, 1979-1994

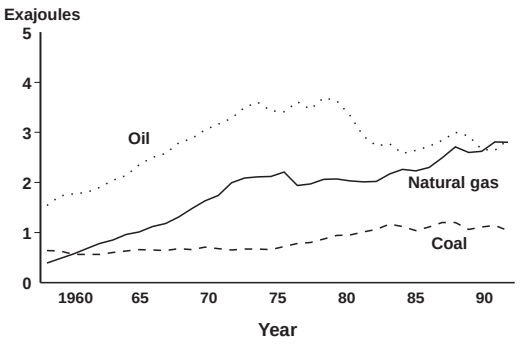


Source: *Commercial Chemicals Evaluation Branch, Environmental Protection Service, Environment Canada. In State of the Environment Bulletin No. 95-5.*

Energy is essential for our well-being and for a healthy economy. Canadians are great consumers of this resource. Canadians consume almost twice as much energy today as they did in the 1960s. However, more efficient methods of production and energy conservation programs are helping to slow the growth in Canada's energy use.

In addition to reducing energy use, it is also important to minimize the environmental effects of the energy we do use. Three-quarters of Canada's energy comes from fossil fuels: oil, natural gas, and coal. Since the mid-1980s, there has been a shift towards the use of natural gas – the least polluting of the fossil fuels (Figure 66), but this too is a finite resource, and other renewable, non-polluting forms of energy must be developed and encouraged.

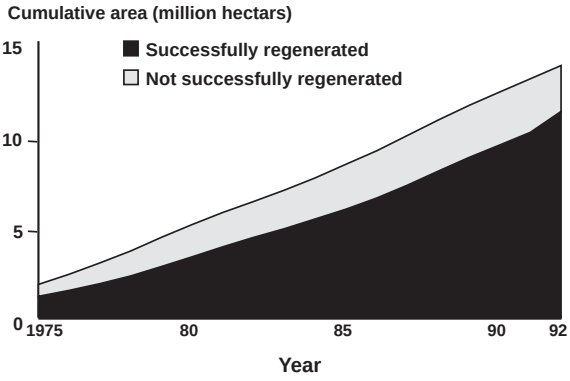
Figure 66
Fossil Fuel Consumption, Canada, 1958-1993



Source: *Statistics Canada. In State of the Environment Bulletin, No. 95-1.*

Forests are important to Canada's economy, natural environment, and life support systems. After timber is harvested, re-planting is essential, to ensure that forests will be able to meet the needs of future generations. Since the 1980s, there have been increased efforts to replace forest areas as they are being cut, and to reforest the backlog of areas that have not been regenerated in the past (Figure 67).

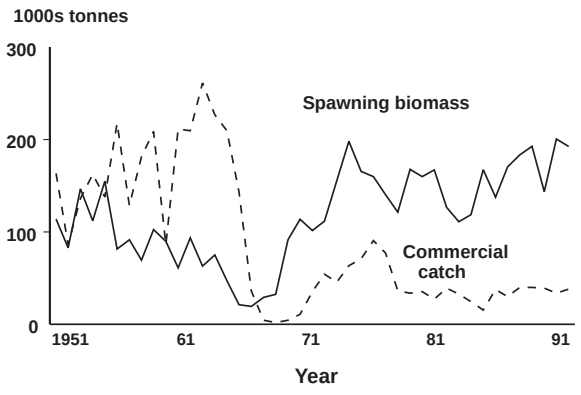
Figure 67
Forest Regeneration, Canada, 1975-1992



Source: *Natural Resources Canada, Canadian Forest Service. In State of the Environment Bulletin, No. 95-4.*

Fish stocks also need to be managed, to achieve a balance which is economically profitable and ecologically sustainable. Overfishing can cause a drastic reduction in fish stocks, as occurred when the Pacific herring fishery collapsed in the mid-1960s (Figure 68), and more recently, the Atlantic groundfish stock decline. In the case of the Pacific herring, since 1983 herring catches have not been permitted to exceed 20% of the spawning biomass. This management practice has resulted in a more sustainable fishery, by producing a low volume, high quality product.

Figure 68
Commercial Catch of Pacific Herring in Relation to Spawning Biomass, 1951-1993



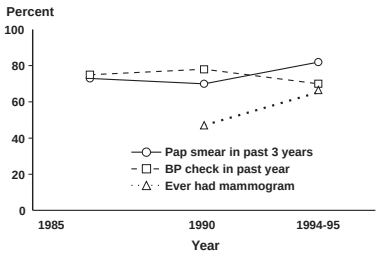
Source: *Fisheries and Oceans Canada. Prepared by State of the Environment Directorate, Environment Canada.*

These indicators do not, of course, provide a complete or comprehensive picture of the state of Canada's fuel, forestry, or fisheries resources. They do provide, however, examples of the types of indicators which can be used to assess progress towards sustainable development and to help us make better decisions about how to manage our resources.

Personal Health Practices and Skills

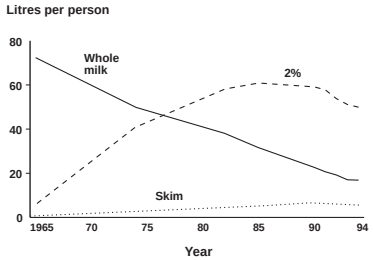
Some healthy practices, such as regular pap tests for cervical cancer (Figure 69), consuming lower fat food and milk products (Figure 70), and breastfeeding (Figure 71), have become more common. Other practices, such as regular blood pressure check-ups and regular exercise (Figure 72), seem to have declined.

Figure 69
Pap Smears and Blood Pressure Checks, Age 15+, and Mammograms, Women Age 50+, Canada



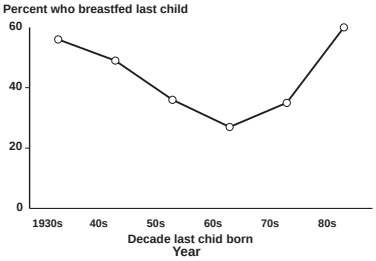
Source: *Stephens, T., & Fowler Graham, E. (Eds.), 1993. Canada's Health Promotion Survey 1990: Technical Report (1985 and 1990). Statistics Canada. National Population Health Survey 1994-95.*

Figure 70
Milk Consumption, Canada



Source: *Statistics Canada. Apparent per Capita Food Consumption. Catalogue number: 32-229.*

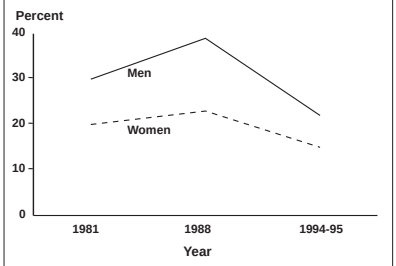
Figure 71
Breastfed Last Child, Mothers Age 15+, Canada



Source: *Stephens, T., & Fowler Graham, E. (Eds.), 1993. Canada's Health Promotion Survey 1990: Technical Report.*

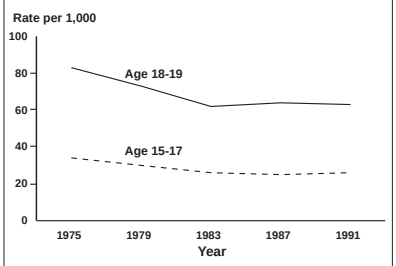
Teen pregnancies have remained at the same rate since the early 1980s (Figure 73). Many teen pregnancies are unintended – some estimates are 80-95% – and birth outcomes are generally poorer among teen mothers. Although not all teen pregnancies are unintended, the high rate indicates that many young women are not able to control the timing and spacing of their pregnancies.

Figure 72
Regular Exercise,
Age 15+, Canada



Source: *Fitness and Lifestyle in Canada (1981), Well-being in Canada (1988), and National Population Health Survey 1994-95.*

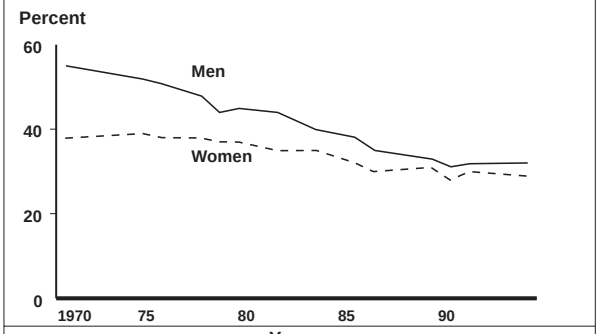
Figure 73
Teen Pregnancy Rates,
Age 15-19, Canada



Source: *Wadhera & Strachan, 1991 (1975-1989). Statistics Canada, Health Statistics Division (1990-1991).*
Note: *Pregnancies include births, abortions, and stillbirths.*

After 25 years of decline, smoking rates in the overall population began to level off in the 1990s (Figure 74). In 1994-95, three in ten Canadians age 15 and older were current smokers (people who smoke on either a daily or occasional basis).

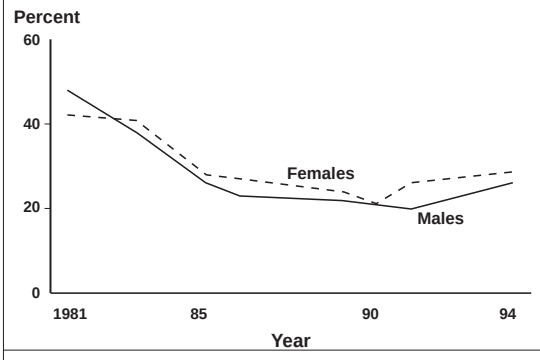
Figure 74
Smoking Rates (Current Smokers), Age 15+, Canada



Source: *Stephens, T., & Fowler Graham, E. (Eds.), 1993. Canada's Health Promotion Survey 1990: Technical Report. Statistics Canada, National Population Health Survey 1994-95.*

Smoking rates among young people have increased, however – a very worrisome trend. Between 1991 and 1994, the percent of youth age 15-19 who were smokers increased four percentage points (Figure 75). This is the only age group with an increasing prevalence of smoking in this time period. Also, this is the only age group where women smokers outnumber men. Experimentation with smoking is occurring at younger and younger ages. Of the young men and women who smoke, almost one-third began smoking before age 13.

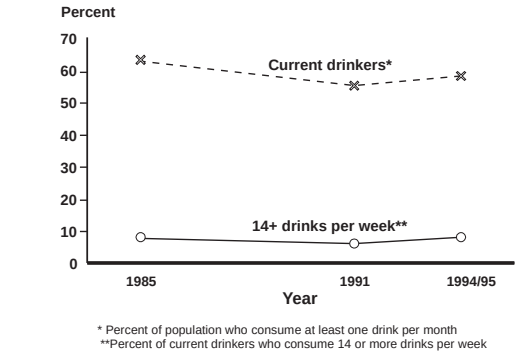
Figure 75
Youth Smoking Rates (Current Smokers), Age 15-19, Canada



Sources: *Health Canada, 1994. Survey on Smoking in Canada, Cycle 1, Fact Sheet 5.*

Since 1985, there have been some unexpected changes in drinking practices. Between 1985 and 1991, there was a decrease in both the proportion of current drinkers and in those who reported consuming 14 or more drinks per week. Although the changes between 1991 and 1994-95 are slight, there appears to have been a reversal of the downward trend (Figure 76).

Figure 76
Alcohol Use, Age 15+, Canada, 1985-1994/95



* Percent of population who consume at least one drink per month
**Percent of current drinkers who consume 14 or more drinks per week

Source: *General Social Survey, Cycle 1 (1985) and Cycle 6 (1991). National Population Health Survey 1994-95.*

Sexual health has become an increasingly important part of healthy living, given that the consequences of unsafe sex now range from illness to infertility and even death, in the case of AIDS. The 1990 Health Promotion Survey was the first national survey to examine sexual practices of Canadians. In 1990, approximately two-thirds of the population age 15 and older reported having had sexual intercourse before age twenty. The majority (91%) had only one sexual partner in the previous year. There are no trend data with which to compare these figures.

Social supports available to people are a very important factor in making them feel valued, and in helping them to cope when problems arise. Social supports include such things as having someone who makes one feel loved and cared for, and having someone to confide in, to count on in a crisis, and to count on for advice. In the 1994-95 National Population Health Survey, more than four out of five Canadians reported high levels of social support.

Indicators to measure social supports and the strength of community networks are still in the early stages of development, and there are no concrete data to show time trends.

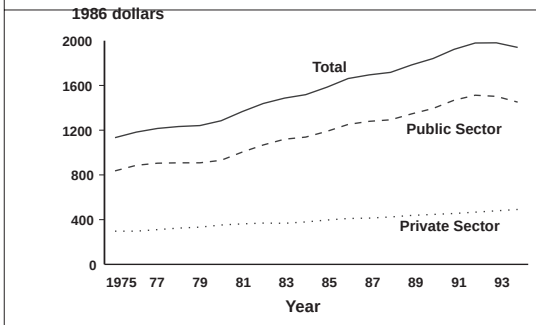
Health Services

In 1994, Canada spent an estimated $72.5 billion on health, or $2,478 per person.

Health expenditures have risen dramatically since 1975. However, the rate of growth has slowed significantly in the 1990s as a result of health reforms and cost containment measures (Figure 77). In 1994, for the first time in the last 20 years, health expenditures showed a decline, per person and as a percent of the Gross Domestic Product.

Since 1975, the public sector share of total health expenditures has declined, while the private sector share, which includes non-insured, out-of-pocket expenses of individuals, has increased.

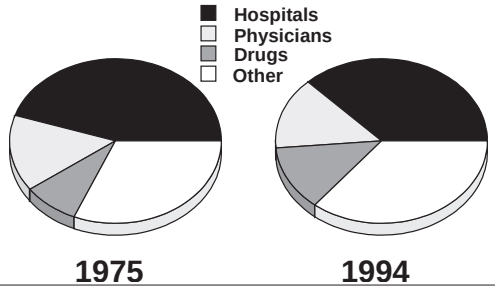
Figure 77
Real Per Capita Health Expenditures, Canada, 1975-1994



Source*: Health Canada, 1996. National Health Expenditures in Canada 1975-1994, Summary Report*

Changes have also occurred by expenditure category. Since 1975, the hospital share of total health spending has declined, while drug costs have increased (Figure 78). As a percentage of the total, expenditures for physicians and other professionals have remained about the same.

Figure 78
Health Expenditures by Category, Canada, 1975 and 1994

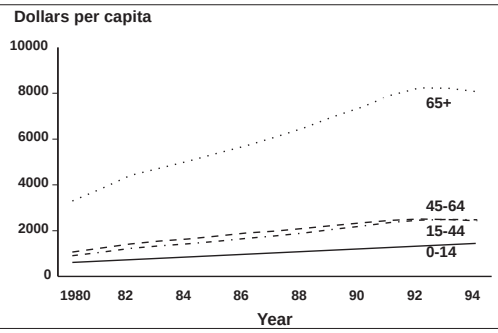


Source*: Health Canada, 1996. National Health Expenditures in Canada 1975-1994, Summary Report.*
Note: "Other" includes expenditures for residential care facilities, other professional fees such as dentists, construction of hospitals and other buildings, home care, public health, and health research.

Health spending increases with age. In 1994, persons aged 65 and older accounted for health expenditures of $8,068 per capita, about 39% of total health spending. Since 1980, the growth in per capita expenditures has been about the same for all age groups (Figure 79).

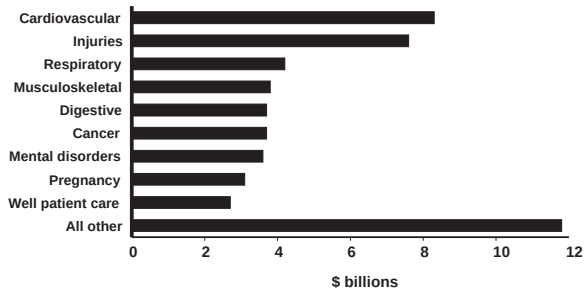
By disease category, cardiovascular diseases and injuries have the greatest economic impact, accounting for $8.3 and $7.6 billion dollars in direct costs in 1993 (Figure 80). These estimates include hospitalization, physician visits, drugs, research, and pensions and benefits for people with illnesses. They do not include the value of lost productivity due to illness or disability or the loss of future earnings due to premature death.

Figure 79
Per Capita Total Health Expenditures by Age Group, Canada, 1980-1994



Source: *Health Canada, 1996. National Health Expenditures in Canada 1975-1994, Summary Report*

Figure 80
Direct Costs of Illness by Disease Category, Canada, 1993



Source: *Laboratory Centre for Disease Control, Health Canada. In Heart and Stroke Foundation of Canada, 1995. Heart Disease and Stroke in Canada.*

Increasingly, efforts are being made to gather evidence about the population's health and disease problems, as well as the costs and outcomes of existing or new health services. Using an evidence-based approach helps to ensure that health services are focused on the most efficient and effective ways to achieve meaningful improvements in population health.

How does Canada Compare with Other Countries?

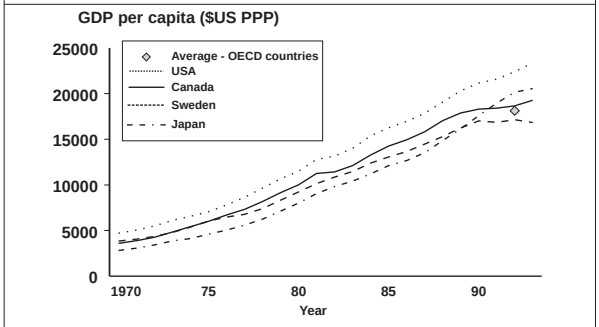
For many of the factors that affect health, there are difficulties in collecting comparable statistics between countries. However, there are some commonly-used indicators that help to give some sense of how Canada compares with other countries, in terms of living and working conditions, the state of the environment, lifestyle behaviours, and health services.

Living and Working Conditions

The Gross Domestic Product (GDP) is one measure that is commonly used to compare standards of living among countries. On this indicator, Canadians enjoy a high standard of living, compared to most other countries (Figure 81).

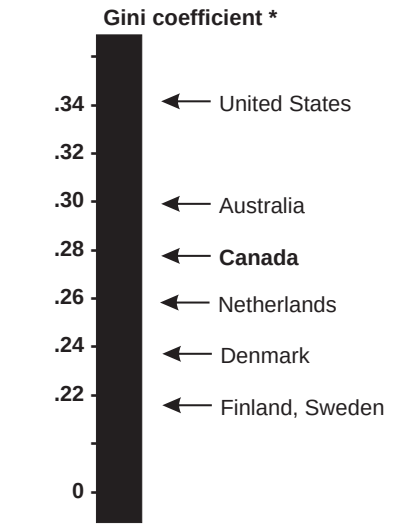
The GDP provides an overall measure of the money available within a country's borders, but it does not tell us how that money is used. Many studies demonstrate that the more equitable the distribution of wealth, the healthier the population. In other words, while the total amount of money in a society is important, it is more important that available income be shared equitably among the population.

Figure 81
Gross domestic Product (GDP) per Capita, Canada and Selected Countries, 1970-1993



Source: *OECD, OECD Health-Data, version 3.6, 1995. United Nations Development Programme (UNDP), Human Development Report 1995.*
Note: *The Gross Domestic Product (GDP) is the value of all final goods and services produced within a country. GDP can be calculated in various ways. In Figure 81, GDPs have been converted to US dollars using purchasing power parities (PPP), which reflect the cost of purchasing an identical basket of goods and services in each country. Using PPP helps to make international comparisons more accurate.*

Figure 82
Income Inequality, 1991-1992

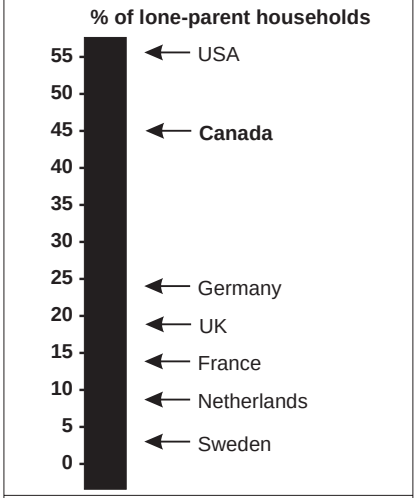


Source: *Smeeding, T., 1996. Luxembourg Income Study: Some Issues Related to Health Outcomes. In this study, comparable data for Japan were not available.*
**Gini coefficient, a measure of income inequality. The higher the number, the greater the inequality (the gap between the rich and the poor).*

Among industrialized countries, Finland and Sweden have the most equitable distribution of wealth. Canada has more income inequality than most developed countries, although less than Australia (Figure 82). Since the 1970s, Canada's income inequality has remained relatively constant (after taxes and transfers). In the United States, on the other hand, the gap between the rich and the poor has grown.

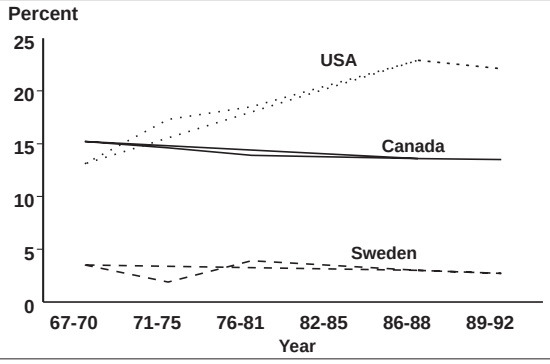
Compared with most other developed countries, Canada has a very high poverty rate, particularly among single-parent families (Figure 83). Most OECD countries, including Canada, have had stable or slightly declining rates of child poverty. In the United States, on the other hand, the rate has shown a large increase (Figure 84).

Figure 83
Poverty Rate, Lone-Parent Households, Canada and Selected Countries, mid-1980s



Source: *Centre for International Statistics on Economic and Social Welfare, Campaign 2000, 1993. Child Poverty Indicator Report.*

Figure 84
Child Poverty Rates, Canada, USA, and Sweden, 1967-1992



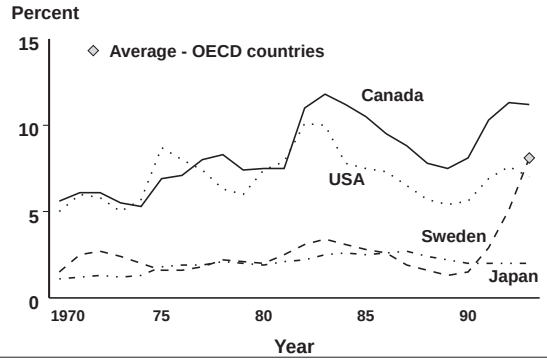
Source: *Smeeding, T., 1996. Luxembourg Income Study Data Quality: Some Issues Related to Health Outcomes.*

Note: Poverty rates may be calculated in various ways. Due to differences in definitions and calculation methods, Canada's child poverty rates in Figures 83 and 84 differ from those shown in Figure 59.

Unemployment rates, like most other economic indicators, fluctuate from time to time. Compared with other OECD countries, Canada's unemployment rate has remained relatively high (Figure 85).

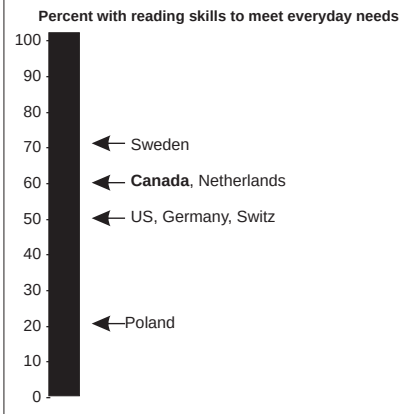
In a recent survey of adult literacy, Canada fell into the second tier of tested countries, along with the Netherlands, Germany, and the United States. About 6 out of every 10 Canadians (58%) had literacy skills to meet most everyday reading requirements, while Sweden showed the strongest literacy skills (Figure 86). The Survey found strong links in all countries between literacy skills, employment and occupational status, and income.

Figure 85
Unemployment Rate, Canada and Selected Countries, 1970-1993



Source: *OECD, OECD Health-Data, version 3.6, 1995. United Nations Development Programme (UNDP), Human Development Report 1995.*

Figure 86
Adult Literacy Rates, International Adult Literacy Survey, 1995

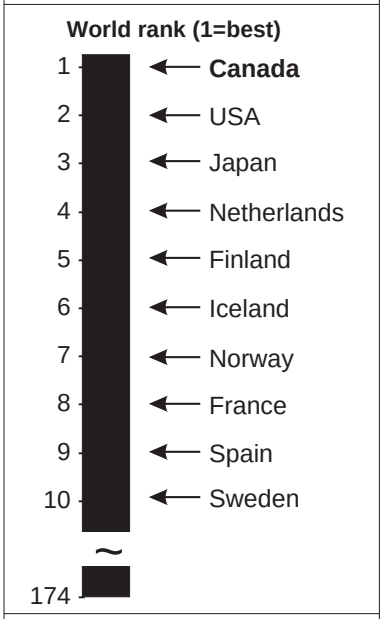


Source: *Statistics Canada and OECD, 1995. International Adult Literacy Survey.*

The United Nations Development Programme has created a composite measure, called the Human Development Index (HDI), which measures a country's achievement in three areas: whether people lead a long life (life expectancy), whether people are educated (educational attainment), and whether people have a decent standard of living (income). In the most recent HDI rankings, Canada currently leads the world (United Nations Development Programme, 1995) (Figure 87).

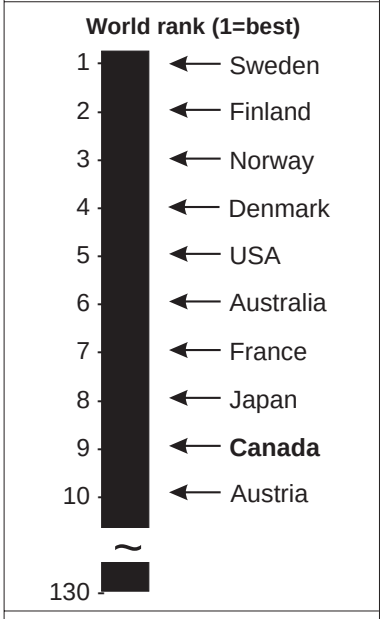
When the HDI is "gender-adjusted", that is, adjusted for inequality in achievement between women and men within each country, Canada's ranking slips to 9th position. The drop in Canada's ranking is due primarily to our gender gap in wages. Sweden, Finland, Norway, and Denmark are the top ranked countries on the gender-adjusted index (Figure 88).

Figure 87
Human Development Index, 1992



Source: *UNDP, 1995. Human Development Report 1995.*

Figure 88
Human Development Index (adjusted for gender inequality), 1992



Source: *UNDP, 1995. Human Development Report 1995.*

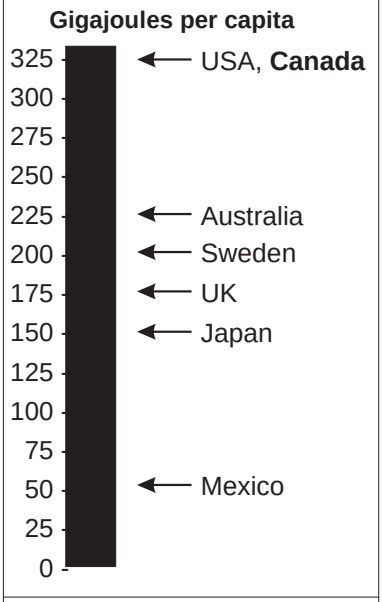
Physical Environment

Canada's use of energy and water and production of forest products and minerals is very high, compared with other industrialized countries.

On a per-person basis, Canada uses more energy than most countries (Figure 89). Some of the factors that contribute to our high level of energy use are vast distances that encourage car use, cold climate, an energy-intensive industrial base, and relatively low energy prices.

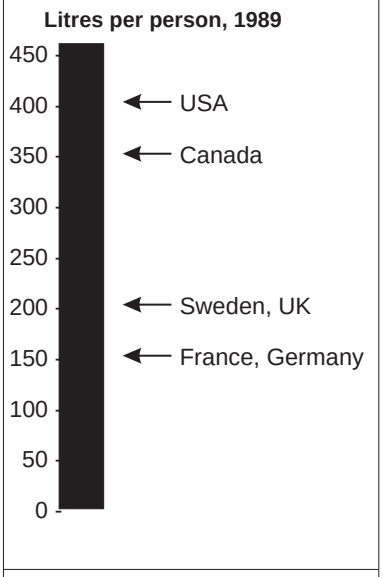
Canada's per capita fresh water use is also high – the second highest in the world (Figure 90). Water use tends to be highest where water prices are relatively low. On average, Canadian households use twice as much water as European households, but pay half as much for it.

Figure 89
Energy Consumption, 1993



Source: *World Resources Institute, 1996. World Resources 1996-97. Oxford and New York: Oxford University Press.*

Figure 90
Residential Water Use, 1989



Source: *Environment Canada. State of the Environment Bulletin, No. 94-1.*

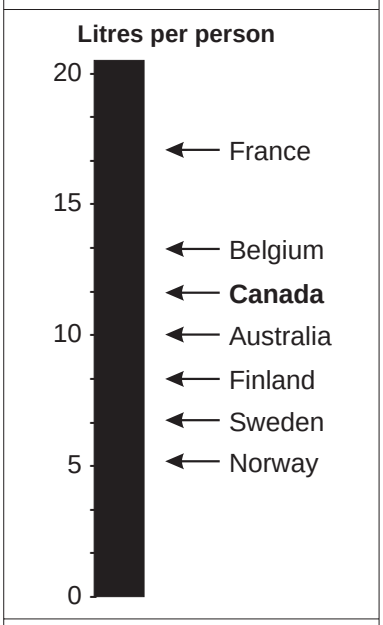
Personal Health Practices and Coping Skills

With respect to lifestyle behaviours, international comparisons are available for only a few topic areas.

In 1990-91, the average Canadian age 15 and older consumed the equivalent of 11 litres of pure alcohol, placing Canada among the highest consumers of alcohol in industrial countries (Figure 91). Only France, Belgium, and Denmark reported higher average intakes.

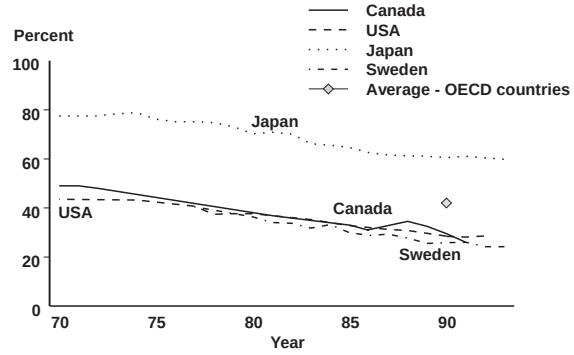
Compared to other OECD countries, fewer Canadian men – but more Canadian women – are regular smokers (Figures 92 and 93).

Figure 91
Alcohol Consumption,
Age 15+, 1990



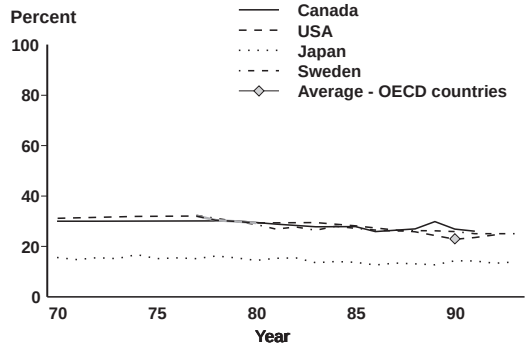
Source: *OECD, 1993. OECD Health Systems: Facts and Trends, 1960-1991.*

Figure 92
Smoking Rates - Men Age 15+,
Canada and Selected Countries, 1970-1993



Source: *OECD, OECD Health-Data, version 3.6, 1995. United Nations Development Programme (UNDP), Human Development Report 1995.*

Figure 93
Smoking Rates - Women Age 15+,
Canada and Selected Countries, 1970-1993



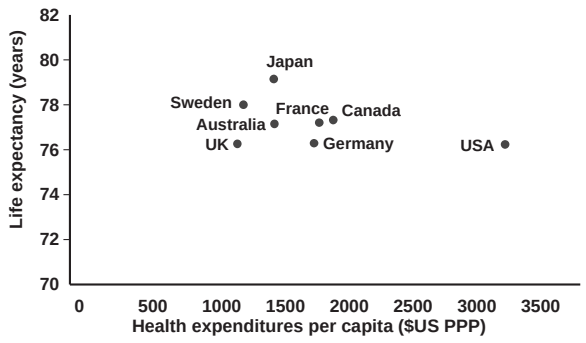
Source: *OECD, OECD Health-Data, version 3.6, 1995. United Nations Development Programme (UNDP), Human Development Report 1995.*

Health Services

World-wide, wealthier countries usually spend more on health services and have healthier people, but at the level of spending within the *industrialized* countries, additional spending does not necessarily appear to improve the health status of the population.

The United States spends more on health services than any other country – US $3,300 per capita in 1993 – with an average life expectancy of 76 years. Japan, on the other hand, has achieved a better health outcome (life expectancy of almost 80 years), while spending considerably less on health services - US $1,500 per capita. Canada, spending about US $2,000 per capita, is in between the United States and Japan, both in terms of health spending and life expectancy (Figure 94).

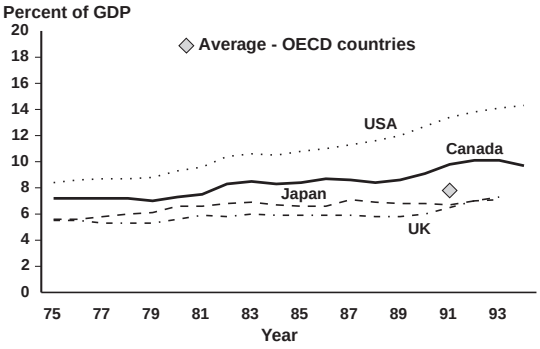
Figure 94
Health Spending and Life Expectancies, Selected Countries, 1993



Source: *OECD Health-Data, version 3.6, 1995. UNICEF, The State of the World's Children 1995.*
Note: *In Figure 94, health expenditures have been converted to purchasing power parities (PPP), which reflect the cost of purchasing an identical basket of goods and services in each country. Using PPP helps to make international comparisons more accurate.*

Efforts to contain health services costs are taking place throughout most industrialized countries. The impact of these reforms is beginning to be reflected in health spending trends. As a percentage of Gross Domestic Product (GDP), health expenditures have stabilized or declined slightly in Canada, Germany, Italy, and the United Kingdom. In 1993, the United Kingdom and Japan had the lowest ratio of health spending as a percentage of GDP (Figure 95). Expenditures continue to be the highest in the United States.

Figure 95
Health Expenditures as a Percent of GDP, Canada and Selected Countries, 1975-1994



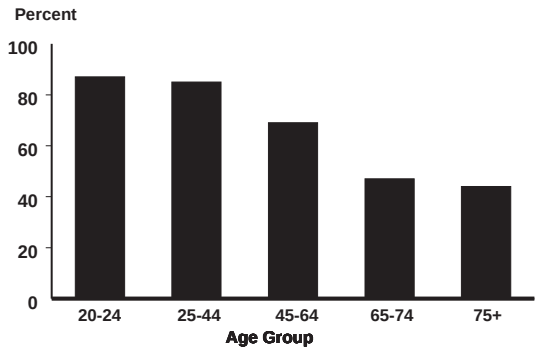
Source: *Health Canada, 1996. National Health Expenditures in Canada 1975-1994. UNDP, Human Development Report 1995.*

Are the Factors that Influence Health Shared Equally by All Canadians?

Age-Related Differences

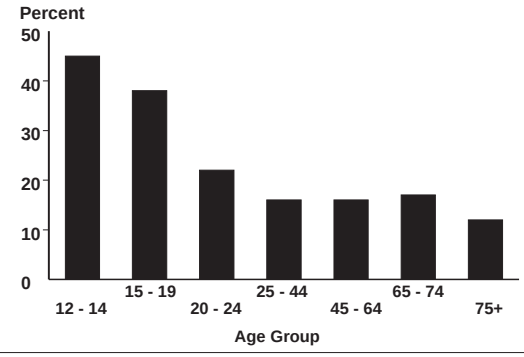
Some of the factors that support health have a greater impact on youth than on older Canadians. Educational levels have risen, so that twice as many Canadians in their early 20s have completed high school, compared to the population aged 65 and older (Figure 96). On average, young people have more knowledge of diseases and health risks. For example, two-thirds of youth can name one or two of the primary risks for heart disease (smoking, high blood pressure, high blood cholesterol), compared with 40% of seniors. And youth are much more likely to participate in regular exercise than are older Canadians (Figure 97).

Figure 96
High School Completed by Age Group, Canada, 1994-95



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

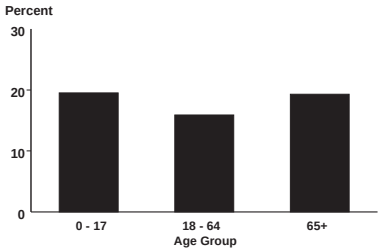
Figure 97
Regular Exercise by Age Group, Canada, 1994-95



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

Poverty affects all age groups, but children and persons over age 65 are the groups most likely to fall below the low income cut-off points, as defined by Statistics Canada (Figure 98).

Figure 98
Low Income Rates by Age Group, Canada, 1994

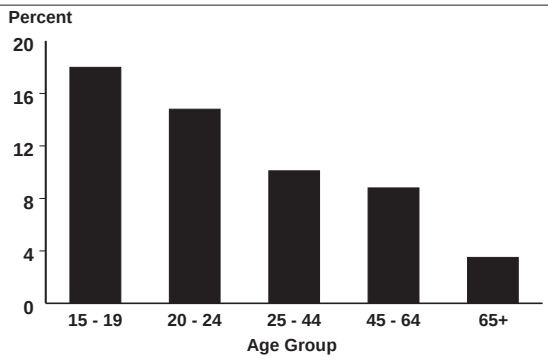


Source: *Statistics Canada, 1996. Low Income Persons, 1980 to 1994. Cat. No. 13-569-XPB.*

Several factors that influence overall health affect youth at higher rates than older Canadians.

Youth are much more likely to be unemployed (Figure 99) and, if employed, are less likely to have employee health benefits, such as disability insurance, medical benefits, or dental benefits.

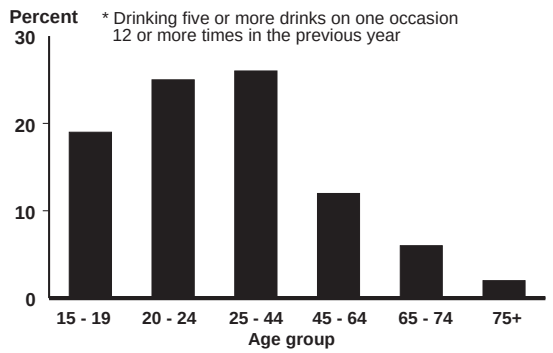
Figure 99
Unemployment Rates by Age Group, Canada, 1994-95



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

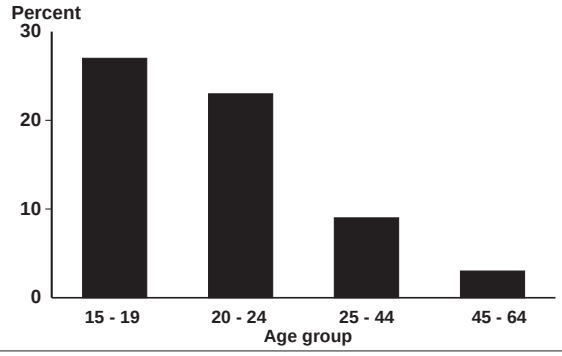
Risky behaviours, such as regular heavy drinking and having multiple sexual partners, are more common among youth. One in five teens ages 15-19 report regular heavy drinking (Figure 100), and more than one in four report having had two or more sexual partners in the past year (Figure 101). The consequences of these behaviours – for youth and for society as a whole – can be very long-lasting.

Figure 100
Regular heavy Drinking*, Canada, 1994-95



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

Figure 101
Two or More Sexual Partners in Past Year, Canada, 1990



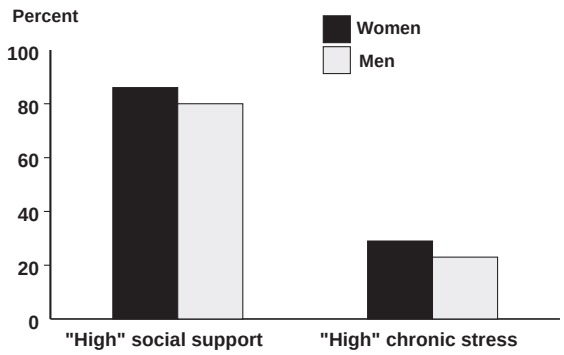
Source: *Canada's Health Promotion Survey 1990. Public use microdata file.*

Male-Female Differences

Women tend to have more extensive social networks, an important positive influence on health. Yet, women also report higher levels of stress than men (Figure 102). The reasons for these male-female differences are not known precisely, although a number of explanations have been suggested.

Women, more so than men, perform unpaid work which includes childrearing, housework, and caring for sick, elderly, disabled, or chronically ill family members, friends, or neighbours. While caring for family members can be rewarding for many women, it can also contribute to feelings of exhaustion and stress, as can the need to juggle family responsibilities with work outside the home. Other theories suggest that women are more willing to acknowledge and talk about their feelings of stress.

Figure 102
Social Support (Age 12+) and Chronic Stress (Age 18+), Women and Men, Canada, 1994-95



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

Traditionally, the balance of power in our society has favoured men, with women being given a subordinate position. Gender inequality takes many forms – lower wages, disproportionately-allocated family responsibilities, vulnerability to certain types of violence, and lesser representation in decision-making roles. These differences, such as the wage gap between men and women, are not just found in Canada (Figure 103). As the United Nations Development Programme points out, "in no country are women secure or treated equally to men" (UNDP, 1994).

Figure 103
Women's Wages as a Percent of Men's, Selected Countries, 1990-92

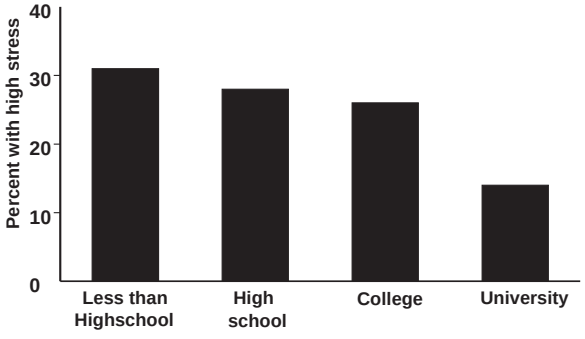
Source: *United Nations Development Programme (UNDP). Human Development Report 1994.*

As well as differences in living and working conditions, there are male-female differences in lifestyle behaviours affecting health. Certain risky practices, such as heavy drinking and driving are much more common among men than women. On the other hand, young women are smoking more – and at an earlier age – than young men. In the 12-14 age group, 15% of girls smoke, compared to only 5% of boys.

Differences According to Living and Working Conditions

Living and working conditions, such as income, level of education, and employment, are closely related to each other and to the range of other factors that influence health. For example, those with higher levels of education are less likely to be highly stressed (Figure 104), less likely to smoke, and less likely to be exposed to dust, noise, or other health hazards at work. Those with higher levels of education are more likely to know the risks for heart disease, to know and practice methods of avoiding sexually transmitted diseases, to exercise regularly, to use safety equipment such as bicycle helmets, to breastfeed their children, and to have employment-related health benefits.

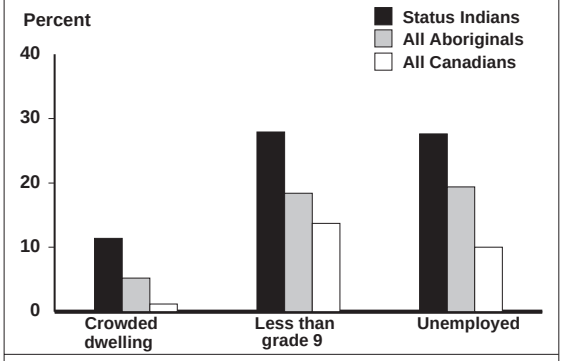
Figure 104
Stress Decreases with Education, Canada, 1994-95



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

Over the past few decades, Aboriginal people have made significant and steady gains in housing, educational achievement, and employment. However, Aboriginal people are still much more likely than non-Aboriginals to live in crowded dwellings, to be unemployed, less educated, and living in poverty, especially if they live on reserve (Figure 105). These factors all contribute to the generally poorer level of health experienced by Aboriginal communities.

Figure 105
Living and Working Conditions, Aboriginals and All Canadians, 1991



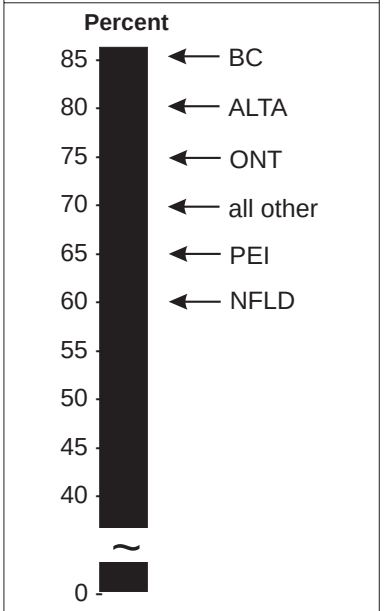
Source: *Indian and Northern Affairs Canada, 1995. 1991 Census Highlights in Registered Indians.*

Provincial differences

With most social and economic indicators, there are large differences between provinces.

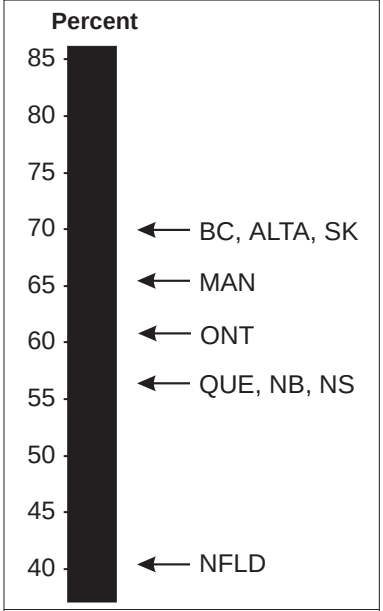
In educational attainment (Figure 106), reading skills (Figure 107), and number skills, the eastern provinces, especially Newfoundland, fall below the national average, with the western provinces having the highest rates. Unemployment rates are highest in provinces from Quebec east (Figure 108).

Figure 106
High School Completed, Age 20+, 1994-95



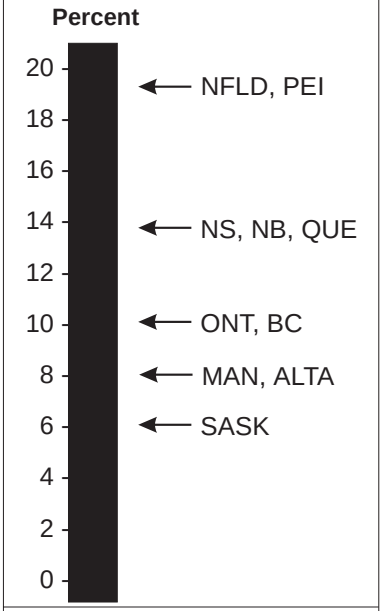
Source: *Statistics Canada. National Population Health Survey 1994-95.*

Figure 107
Adult Literacy, Percent with Skills to Meet Everyday Needs, 1989



Source: *Statistics Canada, 1991. Adult Literacy in Canada: Results of a National Survey, 1989.*

Figure 108
Unemployment Rates, Age 15+, January 1995

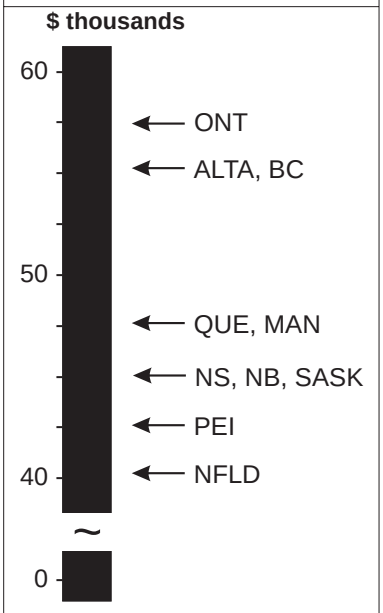


Source: *Statistics Canada. Labour Division, 1995. Labour Force Statistics.*

There are large interprovincial variations in average family income, low-income families, and income equality. Average family incomes are lowest in Newfoundland and Prince Edward Island (Figure 109). These low average incomes do not necessarily mean that there is high poverty because, although Newfoundland has one of the highest rates of child poverty (23% of all children under 18), Prince Edward Island has the lowest (13%) (Figure 110).

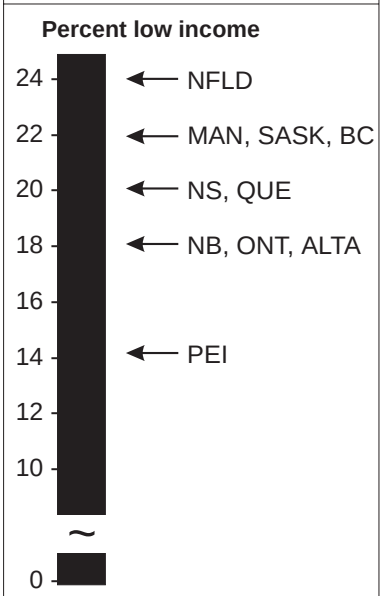
In all provinces, most children in single-parent families are living below the poverty line. Among children in female lone-parent families, the poverty rate ranges from a low of 58% (Alberta) to 70% (Manitoba) (Figure 111).

Figure 109
Average Family Income, 1991



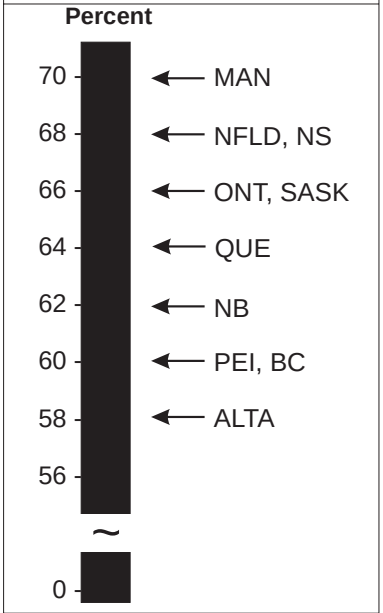
Source: *Statistics Canada, 1992. Income After Tax, Distributions by Size in Canada.*

Figure 110
Child Poverty Rates, Children Under 18 Years, 1994



Source: *Statistics Canada, 1996. Low Income Persons, 1980 to 1994.*

Figure 111
Child Poverty Rates, Children in Female Lone-Parent Families, 1994

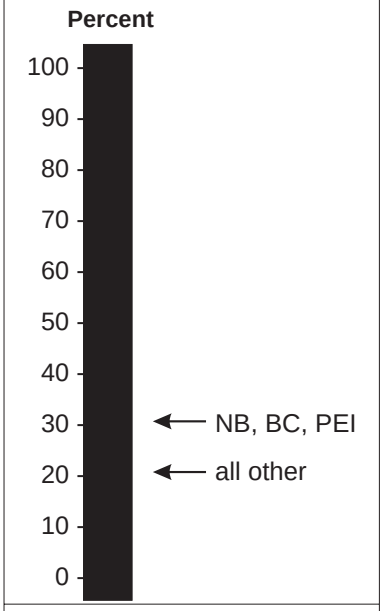


Source: *Statistics Canada, 1996. Low Income Persons, 1980 to 1994.*

The wide range in provincial rates applies to many aspects of living and working conditions, including topics such as access to housing, family violence, and smoking policies.

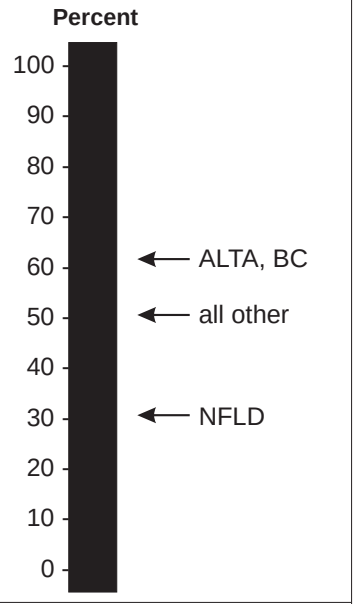
The Canada Mortgage and Housing Corporation has developed an index called core housing need, which measures housing need in Canada. According to this index, between one-quarter and one-third of renter households were unable to access suitable, adequate, and affordable housing in 1991. Housing needs were greatest in Prince Edward Island and in British Columbia (Figure 112). In terms of family violence, women in Newfoundland are much less likely to report having experienced physical or sexual violence than women in British Columbia and Alberta (Figure 113). Ontario has the most smoke-free schools (93%), with Quebec (30%) falling considerably below the national average (Figure 114).

Figure 112
Renters in Housing Need, 1991



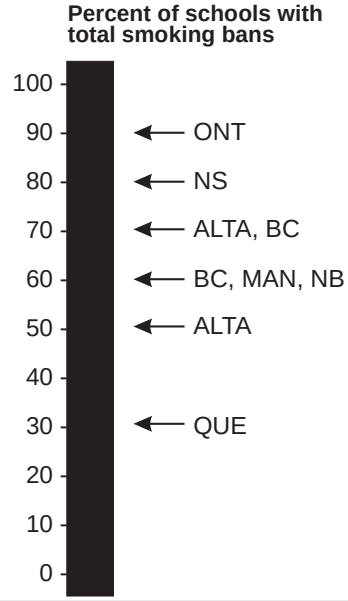
Source: *Canada Mortgage and Housing Corporation. Research Division. Core Housing Need Database.*

Figure 113
Ever Experienced Physical or Sexual Violence, Women Age 18+, 1993



Source: *Statistics Canada. Violence Against Women Survey, 1993. In this survey, violence was defined as behaviour that could be considered a criminal offence, ranging from unwanted sexual touching to physical attack resulting in injury.*

Figure 114
Smoke-Free Schools, 1995

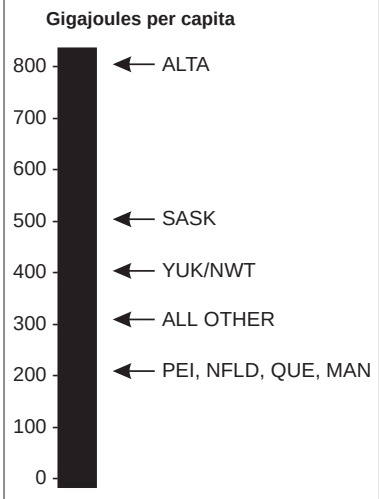


Source: *Thomas Stephens and Associates and Goss Gilroy Inc., 1995. Survey of Smoking Restrictions in Four Settings. Prepared for Health Canada.*

Because environmental issues and data collection systems vary across the country, it is not easy to compare the state of the environment across Canada. Indicators which are comparable show large differences between provinces.

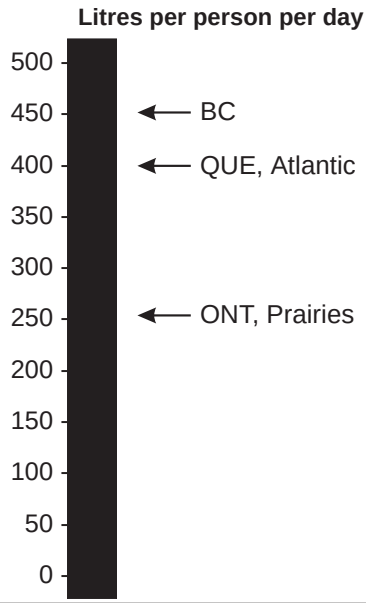
For example, energy consumption varies widely. Not surprisingly, provinces with abundant energy supplies consume more (Figure 115). The average Canadian used 340 litres of water per day in 1991. On a regional basis, residents of British Columbia, Quebec, and the Atlantic provinces use much more water per capita than do residents of Ontario and the Prairies (Figure 116). Canada is known for its abundant water supply. In fact, because of increasing demand for water, municipal water supply is becoming one of the most critical water issues in Canada. In 1991, one in five Canadian municipalities with water systems reported problems with water availability.

Figure 115
Energy Consumption, 1993



Source: *Statistics Canada, June 1995. Environmental Perspectives: Studies and Statistics. Cat. No. 11-528E, No. 2.*

Figure 116
Residential Water Use, 1991

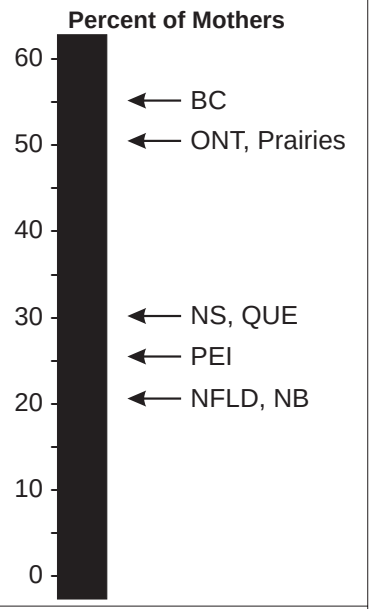


Source: *Environment Canada's Municipal Water Use Database. In State of the Environment Bulletin No. 94-1.*

Some of the greatest differences between provinces are in the area of lifestyle behaviours. For example, breastfeeding provides health benefits to both mothers and infants. Breastfeeding rates increase from east to west, with mothers in British Columbia, Alberta, and Manitoba more than twice as likely to have breastfed their last child than mothers in the Atlantic provinces (Figure 117).

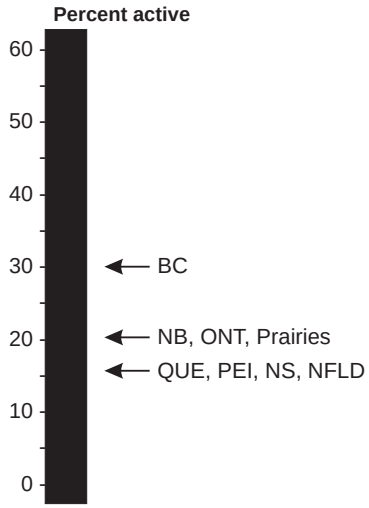
Western Canadians report getting more physical exercise than others (Figure 118). The use of bicycle helmets ranges from a low of 6% of bicyclists in Manitoba and Saskatchewan to 29% in British Columbia (Figure 119).

Figure 117
Breastfed Last Child, 1990



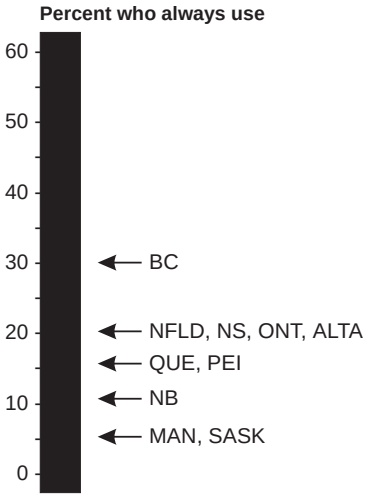
Source: *Stephens, T., & Fowler Graham, E. (Eds.), 1993. Canada's Health Promotion Survey 1990: Technical Report*

Figure 118
Regular Exercise,
Age 12+, 1994-95



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

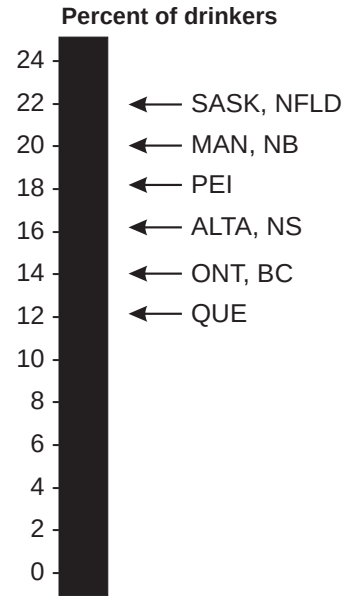
Figure 119
Bicycle Helmet Use,
Age 12+, 1994-95



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

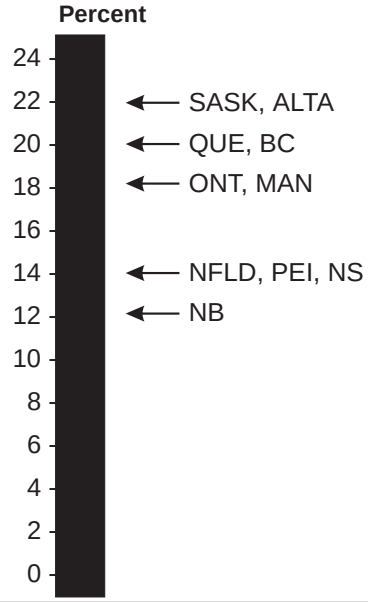
With regard to risky behaviours, the rate of regular heavy drinking ranges from a low of 11% in Quebec to a high of 23% in Newfoundland (Figure 120). Driving after drinking is most common in Saskatchewan (Figure 121), while having two or more sexual partners in the past year was most common in British Columbia (Figure 122).

Figure 120
Regular Heavy Drinking,
Age 12+, 1994-95



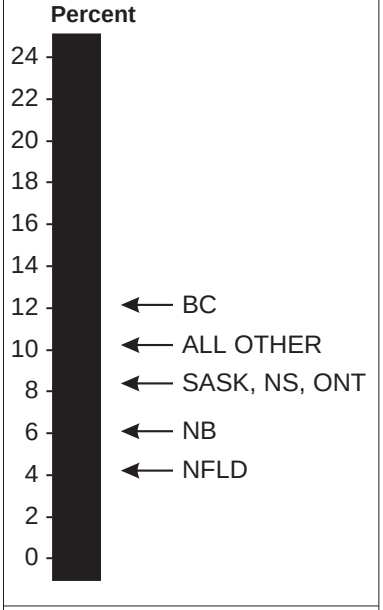
Source: *Statistics Canada National Population Health Survey 1994-95. In this survey, regular heavy drinking was defined as drinking five or more drinks on one occasion 12 or more times in the previous year.*

Figure 121
Driving After Drinking*,
Age 15+, 1990



Source: *Stephens, T., & Fowler Graham, E. (Eds.), 1993. Canada's Health Promotion Survey 1990: Technical Report.*
** One or more times in past 30 days.*

Figure 122
Two or More Sexual Partners in
Past Year, Age 15+, 1990



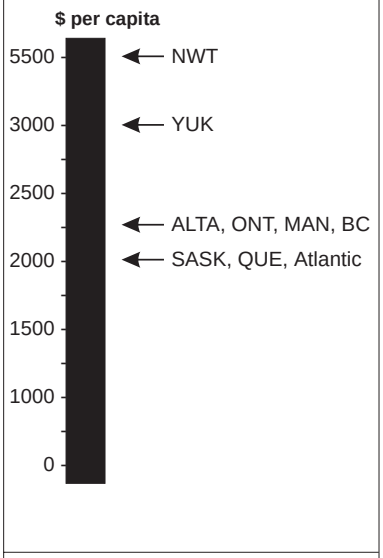
Source: *Canada's Health Promotion Survey 1990. Public use microdata file.*

In all provinces and territories, health services are the largest government expenditure, accounting for about one-third of provincial and territorial budgets. Among the provinces, health spending per person was highest in British Columbia ($2,631) and lowest in Nova Scotia ($2,231) in 1994 (Figure 123). Per capita health expenditures are higher in the Yukon and Northwest Territories because of the great distance required to travel for some services. In the Northwest Territories, for example, subsidized medical travel represents about 10% of health expenditures.

As a percent of Gross Domestic Product (GDP), the Atlantic provinces generally devote a greater proportion of their economic resources to health (between 11.3% and 13.5% of GDP) than central and western Canada (Alberta being the lowest in the country, at 7.9% of GDP (Figure 124). Since the early 1990s, all governments have developed strategies to reduce or control their health spending. As a result, real public sector health spending (in constant dollar terms) declined in all provinces for the second consecutive year in 1994.

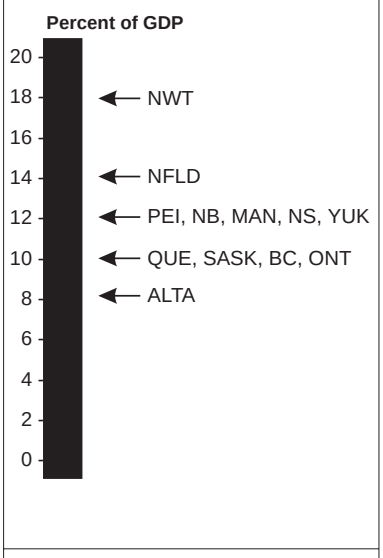
Despite reasonably equal access to health services, there are large differences in aspects of health care delivery and use. The average days each patient stays in hospital ranges from 7-8 days in Alberta, Québec and Prince Edward Island to 14 days in British Columbia (Figure 125). There does not appear to be a connection between the length of hospital stay and the proportion of elderly in the population.

Figure 123
Per Capita Total Health Expenditures, 1994



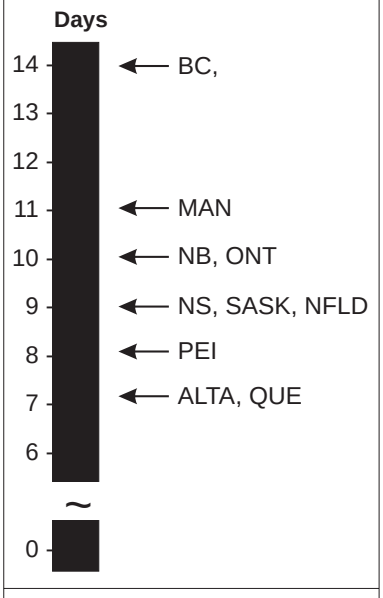
Source: *Health Canada, 1996. National Health Expenditures in Canada 1975-1994.*

Figure 124
Total Health Expenditures as a Percent of GDP, 1994



Source: *Health Canada, 1996. National Health Expenditures in Canada 1975-1994.*

Figure 125
Average Days of Stay in Hospital, 1992/93



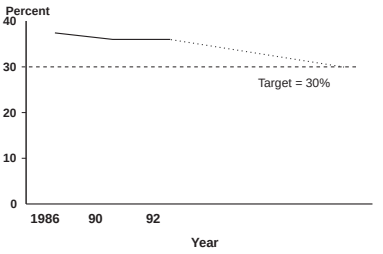
Source: *Statistics Canada, Health Statistics Division, Health Indicators 1995.*

Is There Potential for Improvement?

As with health status, potential for improvement in the factors that support health can be identified in various ways.

For some indicators, experts have studied the evidence and set guidelines or targets. For example, nutritionists recommend that we should aim to reduce dietary fat intake to an average of 30% of total calories. Although the precise contribution of dietary fat to risk is not yet known, there is consensus that reducing fat to the 30% level will lower the risk of heart disease, cancer, and chronic conditions such as obesity. Based on food purchase estimates, Canadians currently consume about 36% of their total calories as fat. Although there has been a modest downward trend in recent years, there is considerable improvement needed to reach the target level (Figure 126).

Figure 126
Dietary Fat Consumption
(Percent of calories consumed as fat), Canada

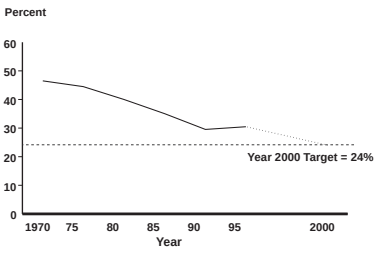


Source: *Statistics Canada. Family Food Expenditure in Canada. Custom tabulation (via AGNAP program in Agriculture and Agri-Food Canada).*

Similarly, after studying smoking trends and prevention strategies, a national objective was set: to reduce the smoking rate to 27% of Canadians age 15+ in 1996 and to 24% by 2000. Recent trends suggest that these goals will not be readily met at the current rate of progress (Figure 127).

Other topics for which experts have set guidelines or targets include air quality, immunization rates, and services that should be included in periodic health examinations.

Figure 127
Smoking Rates, Age 15+, Canada

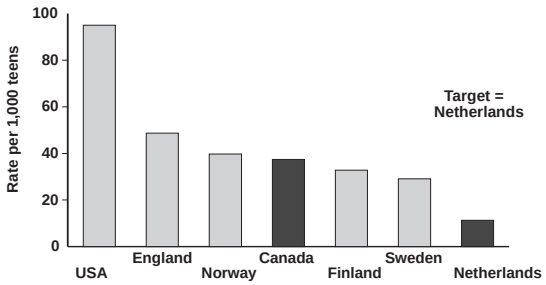


Source: *Stephens, T., & Fowler Graham, E. (Eds.), 1993. Canada's Health Promotion Survey 1990: Technical Report. Statistics Canada, National Population Health Survey 1994-95.*

In setting targets, it can be useful to study what has been achieved by other countries. For example, the Netherlands, where comprehensive sexuality education begins in the primary grades and a wide range of services is available to adolescents, has been able to achieve a very low rate of teen pregnancy (Figure 128). The Netherlands rate of 11 pregnancies per 1,000 teens could be used as a target for Canada.

In addition to developing objectives and targets for specific diseases and health problems, a comprehensive approach can be used to identify areas for improving health. All Canadian provinces (and most countries) that have developed health goals have adopted some type of framework that encompasses the influences on health. Thus, "health goals" usually extend beyond goals for health status and levels of disease, to encompass goals, objectives, and targets for living and working conditions, individual health practices, the physical environment, and health services.

Figure 128
Teen Pregnancy Rates, Canada and Selected Countries, Mid-1980s



Source: *United Nations, Demographic Yearbooks. In Wadhera & Strachan, 1991.*

4 Improving Health

Health Status of Canadians

By many of the measures in this report, Canadians have made good progress in improving their overall level of health, and are currently among the healthiest people in the world. Canadians are living longer, fewer infants are dying in the first year of life, and early deaths due to heart disease and injuries have declined. However, some indicators show a stable or worsening trend, indicating that there is an ongoing need for action to improve our health.

In addition, not everyone shares equally in the overall good health of our country. On many measures there are considerable variations in the level of health by age, gender, and geographic region. Even more apparent is the fact that people who are more advantaged through education and standard of living have better health than those who are disadvantaged.

What can be done to make continued progress towards achieving health for all Canadians? Our present knowledge about what makes and keeps people healthy allows the following conclusions:

- Although there are large differences in health among various sectors in Canadian society, an overall goal would be for all Canadians to improve their health, and ultimately to achieve the level of health currently enjoyed by the healthiest groups of Canadians.

  The relationship between the various powerful influences on health and the actual level of health is complex. We know that living and working conditions, the physical environment, individual health practices and coping skills, biology and genetic endowment, early childhood experiences, and access to effective health services are all important to health. However, these factors are inter-connected and may offset or augment one another.

  For example, individuals with a chronic illness or disability such as arthritis may, through good coping skills, consider themselves quite healthy. Similarly, communities that have been affected by adverse economic conditions but that can rely on extensive social support networks, may maintain their health status, because of the protective effect of this support. On the other hand, individuals or groups that have many disadvantages – low income, low education, lack of control, lack of social supports, and inadequate coping skills – are often unhealthy. Our challenge is to achieve an optimum level of all the conditions that enhance health in all communities across Canada.

- No matter how healthy we become as a country, people will continue to become ill and will require access to effective health services.

  Yet, despite reasonably equitable access to health services in Canada over the past several decades, there are still large inequalities in health status. While medicare must be protected and preserved, to make real gains in population health we must also address the powerful influences on health *outside* of the health services system.

Influences on Health

There are a number of trends that are cause for concern, because of their potential impact on the health of Canadians:

- Unemployment is affecting large numbers of Canadians, and those numbers remain high.
- Child poverty rates in Canada, particularly for children in single-parent families, are very high compared to other industrialized countries and are showing no sign of improvement. A consequence of Canada's high poverty rate is the fact that infants born in our low income neighbourhoods are almost twice as likely to die in their first year of life as are infants born in high income areas. Some other countries, notably Sweden, have had more success in minimizing infant death rates among disadvantaged groups, thereby lessening the differences in infant deaths among the various sectors of the population.
- inequalities in earned income are growing and could well lead to a growing number of the poor, if the social safety net becomes inadequate to counterbalance this trend.
- Certain lifestyle trends are worrying. Canadians are exercising less, obesity is increasing, smoking is increasing among teens, and teen pregnancy rates are much higher than what is being achieved in some countries.

These trends indicate that while Canadians can take pride in being among the healthiest people in the world, there is room for improvement. Current trends in many of the most powerful factors that make and keep people healthy, such as employment, adequate income, and a fair distribution of wealth, are cause for concern. Unhealthy behaviours, such as smoking, lack of exercise, and overeating, may take ten to twenty years before they are reflected in overall population health status. However, right now there are disturbing, unhealthy trends in these behaviours.

Canada has for many years been a world leader in gaining understanding about what makes and keeps people healthy, as shown in the landmark works of Lalonde (1974), the Ottawa Charter, and Achieving Health for All (Epp, 1986). More recently, the report on Strategies for Population Health: Investing in the Health of Canadians (ACPH, 1994) proposed a framework for action, which encompasses all the major influences on health, including:

- **Living and working conditions** (the social and economic environment): income, employment, social status, social support networks, education, and social factors in the workplace.
- **Physical environment**: physical factors in the workplace, housing conditions, as well as other aspects of the natural and human-built environment.
- **Personal health practices, individual capacity, and coping skills**: behaviours that enhance health or create risks to health, as well as individual characteristics such as coping skills, decision-making skills, and human biology.
- **Health services**: services to promote, protect, maintain, and restore good health.

Healthy child development is not included as a separate category in the framework, in spite of its crucial importance as an influence on health. Rather, each of the categories includes factors known to contribute to healthy child development.

From this report it can be seen that there are major challenges remaining in all of these areas. These areas are inter-related and inter-dependent. Therefore, measures developed to address challenges in one area may also address, or at least impact, on challenges in other areas.

Living and Working Conditions

Challenge: Create a thriving and sustainable economy, with meaningful work for all

A strong economy that provides meaningful work is an important part of ensuring a healthy population.

Good jobs are related to better health, by providing people with the incomes they need to purchase housing, food, and other necessities. In addition, people who have meaningful work have more choices and control in their lives, and they tend to have better health. The biological explanation for how this could happen is becoming clearer. Recent studies show that limited options and poor coping skills increase vulnerability to a range of diseases, through pathways that involve the immune and hormonal systems.

Canadians believe that everyone should have the right to earn an adequate income (Peters, 1995). However, the longstanding high rates of unemployment – particularly among youth – have made this difficult, and present a major barrier to making improvements in population health. In the context of globalization and the resulting restructuring of labour markets, we must find ways to create jobs which are meaningful, adequately-paid, and sustainable.

Challenge: Ensure an adequate income for all Canadians

While raising the employment rate and average income for all Canadians will improve the health of many, it must be recognized that we have long had, and likely will continue to have, a proportion of the population living in poverty. People with inadequate incomes are particularly vulnerable to poor health, because of the combined factors of chronic unemployment, inadequate education, inadequate nutrition, and poor housing. These factors all contribute to the generally poorer level of health experienced by many Aboriginal communities and by both the working and unemployed poor throughout Canada.

In an ideal world, everyone would have meaningful work and an adequate income. However, most Canadians acknowledge that when individual effort has failed, we have a collective responsibility to ensure that basic needs are met (Peters, 1995).

Challenge: Reduce the number of families living in poverty in Canada

There is a particular need to address the problem of families living in poverty, particularly those headed by single women. As shown previously, 20% of all children – and 60% of children in female lone-parent families – live in poverty, and these rates have not been improving. This is something that requires urgent attention. Children in these circumstances are not able to take full advantage of educational opportunities and are much more likely to have poor health throughout life. Perhaps of greatest concern, children in poverty are unlikely to be able to provide any better conditions for their own children and grandchildren, and so the cycle of disadvantage is passed on from one generation to the next.

Other industrialized countries have made major achievements in reducing child poverty. Canada should put a high priority on implementing successful initiatives to address this problem.

Challenge: Achieve an equitable distribution of income

Improving health is not simply a matter of achieving full employment and good incomes. The distribution of income is also very important – the more equal the distribution of wealth, the healthier the population. In Canada, although average incomes and employment rates are not as high as in the United States, our overall health status has been consistently better. This is related, in part, to levels of income equity. Canada has a less equal distribution than some other countries, but we have been more successful than the United States in preventing the distribution of income in society from widening.

The data on income inequality show that, although there has been a tendency towards growing inequality in terms of earned income, Canada's tax system, federal/provincial transfers, and social safety net have been successful in keeping the distribution of disposable income at a very constant level, at least up until 1993, the most recent year for which data are available. This is a direct consequence of our tax and social policy (federal and provincial). In some major industrialized countries, like the United States and the United Kingdom, there have been growing economic inequalities, with an increasing proportion of low income people. There is concern that this trend is associated with increased crime and violence and a deteriorating quality of life for everyone. The lesson is that by maintaining a fair distribution of income, everyone in society benefits and is healthier.

The sectors involved in maintaining a fair distribution of income in Canada include the federal government, provincial governments, and the private sector.

Challenge: Ensure healthy working conditions

There are several ways in which conditions in the workplace can have an effect on health: through the organizational culture, through the maintenance of safe working conditions, and through sensitivity to the needs of employees and their families.

Safe workplaces contribute to health. Workplace injuries and occupational illnesses exact a large toll on the health of workers across Canada. In 1993, 423,000 work injuries resulted in compensation to the injured worker. The health of workers, as well as their safety, needs to be protected. Workplaces can also be made sensitive to the needs of families, through parental leave policies, flexible work arrangements, and the availability of worksite child care.

People who have more control over their work circumstances are healthier. Hence, organizational policies that promote employee participation in corporate decision-making are health-promoting. Health is also affected by stress-related demands of the job, such as the pace of work, the frequency and flexibility of deadlines, and the perceived meaningfulness of the work.

To make improvements in these areas will clearly require cooperative efforts between the public and private sectors.

Challenge: Encourage life-long learning

Education acts as a strong influence on health, from the very earliest years of life. Early childhood education, along with good parenting and nutrition, have been shown to have a major impact on subsequent health. Education equips people with knowledge and skills for problem solving and helps to provide a sense of identity and control and mastery over life circumstances. Hence, education is important not only through the years of formal schooling, but throughout life. It increases opportunities for employment, income security, and job satisfaction. And, education improves people's ability to access and understand information and to make choices that keep them healthy.

There are large differences across Canada in literacy rates and in the levels of education achieved. Health would be improved if all jurisdictions were able to achieve levels equal to the best in the country. Improvements in both the quality of education and the quantity (in terms of the level achieved) can be expected to lead to nation-wide improvements in health – a longer life expectancy, an improved quality of life, and decreased illness and death from preventable diseases. While this will primarily be the responsibility of provincial education ministries, national leadership could serve to achieve more uniform and higher levels of education across the country.

Challenge: Foster friendship and social support networks, in families and communities

Support from families, friends, and community members leads to better health. Although this is an area in which we do not have extensive data, there is evidence that the health effects of social relationships may be as important as established risk factors such as smoking, lack of exercise, obesity, or high blood pressure.

Why do good social support networks seem to improve health? Support from family, friends, and acquaintances can be very important in helping people solve problems and cope with adversity. Friendship networks in the home, at work, and in community organizations can help us to feel that we have a place in the world, and that we are important in the lives of others. As well, family and friends often help to provide basic support such as food and housing, looking after one another when they are ill, and supporting one another in making healthy lifestyle choices. The caring and respect that occurs in social relationships, and the resulting sense of satisfaction and well-being, seem to act as a buffer against health problems. On the other hand, those who are physically, psychologically, or socially isolated from society have poorer health.

At this time, there are few available data on social supports in Canada. This is an area that should be more extensively researched and monitored in the future.

To a large extent, initiatives to improve social support networks tend to be the responsibility of local (regional or municipal) governments, community groups, and families. However, federal and provincial policies can also encourage the development of social support networks and the participation of those at risk. For example, government policies on social housing can help to create an environment in which single parents can develop supportive relationships.

Physical Environment

Challenge: Foster a healthy and sustainable environment for all

The physical environment affects health both directly in the short term and indirectly in the longer term.

Good health requires access to good quality air, water, and food and freedom from exposure to toxins. Although air quality has improved, it remains a problem in many Canadian cities. As populations and industries expand into watersheds, the quality of drinking water is declining. Industrial and agricultural pollution of land also has the potential to affect human health. To take action on these direct effects requires cooperative action by all levels of society.

In the longer term, if the economy grows by degrading the environment and depleting natural resources, human health will suffer. There is an intricate and inter-dependent relationship between the sustainability of the economy, the sustainability of the environment, and improved human health and well-being. Improving population health requires both a sustained, thriving economy and a healthy, sustainable environment. The challenge is to maintain a thriving economy, while preserving the integrity of the environment and the availability of resources.

Canadians are great consumers. Our consumption of energy, water, forests, fish, and other natural resources is very high compared with other industrialized countries. We will need to find ways to consume less and to develop environmentally friendly products. The many challenges in achieving a sustainable environment will require intersectoral cooperation.

Challenge: Ensure suitable, adequate, and affordable housing

The physical structures of our communities have an important influence on our health. Housing is important to health in several ways. At the most basic level, housing that is safe, warm, and dry is a necessity of life. Housing that is cold, damp, crowded, in poor repair, or in an unsafe neighbourhood can contribute directly to disease or injury. A house is also a home, a place where people can feel secure, a place to keep things that are important to them, and a place to develop a sense of identity and belonging – all factors that can enhance health.

As well, housing represents the largest monthly expenditure for most households. If that cost consumes too much of the available income, the stresses and difficult choices about how to use the remaining income may have a negative impact on the health of household members. Housing conditions also affect opportunities for social interaction. When the search for suitable and affordable housing causes people to move frequently, the associated stresses and disruption of social networks may lead to poorer health.

There is evidence that many Canadians are not able to find suitable, adequate, and affordable housing. Through housing programs and facilitating measures, governments can assist individuals, community groups, and municipalities to solve local housing issues.

Challenge: Create safe and well-designed communities

The design of roads, neighbourhoods, public buildings, and other physical community structures also influences health. Injuries and violence are reduced by structures designed to ensure the safety and security of residents. Buildings and public transportation that are physically accessible support the independence of persons with functional limitations. Communities designed to give all residents access to necessary services and amenities, protect their safety, and provide opportunities for recreation and social interaction, creating a quality of life that has a strong positive influence on health.

Data are limited on this topic and should be enhanced. However, policies and programs at the federal, provincial, and local levels have the potential to make improvements in this area.

Personal Health Practices and Coping Skills

Challenge: Foster healthy child development

Research shows that, as individuals, our coping skills and our sense of identity, competence, and personal effectiveness are strongly linked with our health status. How we manage stress and respond to life's challenges, our ability to communicate with others, our capacity to express feelings and to respond to the feelings of others, all contribute to health in powerful ways – not just to our mental health, but to our physical health as well. Coping and stress management skills and a sense of control over life circumstances are emerging as particularly important factors in providing resistance to disease. Research is accumulating to show the biological pathways through which this happens, primarily in the immune and endocrine systems.

There is strong evidence that early childhood experiences influence coping skills, resistance to health problems, and overall health and well-being for the rest of one's life. For example, normal birthweight, effective parenting, good nutrition, and plentiful opportunities for stimulation in early childhood contribute to lifelong health. It is for these reasons that child health and development has recently been gaining considerable attention across the country.

Some of the major areas which have been identified for action include:

- Enhancing the involvement of children and youth in creating, maintaining, and improving their own health.
- Ensuring that all children and youth have access to the necessary living conditions required for optimal health and growth.
- Promoting healthy behaviours and reducing the incidence of preventable death, disability, injury, and illness.
- Fostering strong and supportive families, caregivers, and communities.
- Ensuring a safe, sustainable, high quality physical environment for all children and youth.

- Providing a comprehensive, cost-effective network of policies, programs, and services for all children, youth, and families that stresses health promotion, prevention, protection, and care (Health and Welfare Canada, 1993).

The realization of these aims will require a cooperative effort of all levels of government and sectors of Canadian society.

Challenge: Encourage healthy life-choice decisions

Although early childhood is an extremely important period in determining health in later life, the rest of childhood, youth, and early adulthood are also important times. In addition to acquiring an education and the ability to pursue life-long learning, the school age years and early adulthood are very important in choosing and supporting good lifestyle behaviours and developing a sense of responsibility for one's own health.

Personal practices such as smoking, use of alcohol and other drugs, food choices, physical exercise, and other lifestyle decisions affect health and well-being. Our knowledge, intentions, and decision-making skills are important in adopting and sustaining healthy lifestyles. At the same time, our social environments are crucial in enabling and supporting healthy choices. Adequate incomes enable us to purchase the food we need for healthy diets, and to gain access to opportunities for physical activity. Public policies also affect health practices. For example, seat belt legislation has significantly increased their use and reduced injuries and fatalities from car crashes.

Governments at all levels have an important role to play in developing policies that encourage people to make healthy decisions. For example, at the national level, taxation and advertising policies have been used to good effect in some countries to reduce tobacco consumption. Provincially, seat belt, bicycle helmet, and impaired driving policies have contributed to reducing traffic injuries. At the municipal level, restrictions on smoking in public places have reduced involuntary exposure to environmental tobacco smoke.

Health Services

Challenge: Ensure appropriate and affordable health services, accessible to all

Access to needed health services that have been proven effective has a positive influence on our health. At the same time, the wide use of unnecessary or ineffective health care interventions may actually harm the health status of our population, in part, by using up resources that would be better spent elsewhere to improve health (housing for low income families, increased child care support, etc.). In addition, most health care interventions carry a small but finite risk. Thus, individual harm can result from the use of ineffective services. A greater emphasis on services to prevent illness and promote health and independence is important in improving the overall health of the population, and in helping to control the costs of sickness care.

The challenge facing us is to ensure equal access to appropriate and effective health services when they are needed, while still having sufficient resources to devote to other important influences on health.

Challenge: Reduce preventable illness, injury, and death

There has been considerable national attention paid to some of the major causes of disease. The efforts of government, non-government organizations, professionals, and academics have resulted in the development of national goals and initiatives to address heart disease, cancer, injury prevention, and vaccine-preventable illnesses. Similar initiatives have been undertaken at the provincial and community levels.

The Importance of Intersectoral Action

In Strategies for Population Health: Investing in the Health of Canadians (ACPH, 1994), it was emphasized that to meet these challenges, many jurisdictions and sectors will need to be involved.

In the past, health improvement was conceived as being achieved primarily through improvements in health care technology and service delivery, where the provinces have a lead role as the providers of health services. With the more recent recognition of health as something that is also influenced by many other factors it is understood that health is influenced by decisions at all levels of government – national, provincial, regional, and municipal and through daily living. Good leadership will be required to bring together all the sectors that should be cooperating to improve health. These include many government ministries (federal and provincial) such as health, finance, education, social services, housing, labour, justice, aboriginal affairs, economic development, and a range of non-government organizations representing various sectors.

In working together to improve health, there is a need to include families, community organizations (particularly volunteer organizations), and workplaces. Universities, colleges, and think tanks can play a strong role. There is a need to increasingly involve the private sector, both large industries and small businesses. Representatives of populations living in disadvantaged circumstances and experiencing significant health disparities must be essential partners in initiatives to address their unique needs. As well, other groups such as communities of faith, ethnic and cultural organizations, and organizations representing populations with special needs will be important participants. In other words, intersectoral action to improve health strengthens our civil society.

Conclusion

Canadians are among the healthiest people in the world. However, this good health is not enjoyed by everyone equally. Those who are relatively disadvantaged with regard to such factors as employment, income, education, housing, and early childhood circumstances are also likely to have poorer health. Current trends in employment rates, income disparities, and lifestyle choices give reason to be very concerned about the sustainability of good health in Canada.

To maintain and improve the health of Canadians and reduce inequalities in health status will require a coordinated effort involving all levels of government, non-government organizations, the private sector, and both formal and informal community organizations.

Health is not the exclusive responsibility of any one organization, level of government, or ministry. However, based on the experience of other countries such as the United States, United Kingdom, Australia, and New Zealand, there is a role for national leadership in health. In these countries, the development of national health goals has stimulated collaborative action by various partners inside and outside government to improve population health.

Almost all Canadian provinces and territories have now formulated health goals. These health goals are remarkably consistent, in that they address the social and economic environment, the physical environment, health practices and coping skills, human biology and genetics, child development, and health services. National health goals – addressing all these major influences on health, developed through a participatory process across the country – have the potential to stimulate coordinated action to improve the health of Canadians.

Appendix A

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Appendix B

Members of the Advisory Committee on Population Health

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Appendix C

Country Groupings

Industrialized Countries	OECD Countries (Members of the Organization for Economic Cooperation and Development)
Albania Australia Austria Belgium Bulgaria Canada Czech Republic Denmark Finland France Germany Greece H ungary Ireland Israel Italy Japan Netherlands New Zealand Norway Poland Portugal Romania Slovakia Spain Sweden Switzerland United Kingdom United States Yugoslavia (former)	Australia Austria Belgium Canada Denmark Finland France Germany Greece Iceland Ireland Italy Japan Luxembourg Mexico Netherlands New Zealand Norway Portugal Spain Sweden Switzerland Turkey United Kingdom United States
UNICEF. (1995). *The state of the world's children 1995*. Oxford and New York: Oxford University Press for UNICEF.	OECD. (1995) *OECD health data*, version 3.6. Paris: OECD/CREDES.

Appendix D

Indicator Data and Sources

Caution should be exercised when interpreting data based on small samples for some provinces and territories

Indicator Data: Canada and Provinces

Indicator (see Notes and Sources)	Canada	Nfld	PEI	NS	NB	Que	Ont
Well-being							
Excellent health (self-rated)	26%	23%	24%	23%	21%	29%	26%
High psychological well-being	9%	11%	15%	10%	9%	7%	11%
Job satisfaction ("very satisfied")	50%	53%	55%	54%	58%	47%	50%
Function							
Long term activity limitation	20%	15%	22%	28%	20%	17%	21%
Disability-days (past 2 weeks)	0.84	0.64	0.78	1.03	0.82	0.64	0.92
Perfect health (functional status)	25%	30%	33%	23%	23%	25%	25%
Work injuries per 100 workers	3.8	3.7	4.4	4.2	2.1	5.0	2.9
Disability-free life expectancy	69.0		Atlantic: 68.0			69.2	69.1
Diseases and Conditions							
Low birthweight rate	5.7%		4.0%	5.9%	5.5%	5.7%	6.2%
Infertility rate (% of couples)	7%		Atlantic: 7%			5.4%	9.1%
Risk conditions							
High blood pressure	22%	27%	24%	26%	26%	19%	24%
Overweight	32%	41%	37%	36%	36%	28%	33%
High blood cholesterol	15%	14%	16%	15%	18%	19%	12%
Mental health							
Depression	6%	4%	4%	8%	5%	5%	6%
High chronic stress	26%	16%	20%	27%	26%	24%	27%
Work stress index	19.7	20.1	20.5	20.7	20.1	19.2	19.8
Dementia, age 65+	8%		Atlantic: 8.4%			8.4%	7.7%
Sexually transmitted diseases							
AIDS	4.2	1.4	0.8	2.8	1.7	5.0	4.3
Gonorrhoea	24	1	0	10	1	9	28
Chlamydia	154	80	106	158	142	134	133
Vaccine-preventable diseases							
Measles	0.7	0.0	0.0	0.4	0.0	0.9	1.0
Pertussis (whooping cough)	25.7	6.7	44.1	5.1	10.5	59.4	8.5
Enteric (intestinal) infections	115	53	99	66	86	64	139
Cancer incidence							
Women	334	290	353	332	320	325	345
Men	459	400	479	448	465	488	462
Chronic conditions							
Arthritis	12%	12%	15%	19%	14%	8%	14%
Asthma	6%	5%	6%	7%	6%	6%	6%
Back problems	13%	10%	12%	14%	12%	9%	15%
Food allergies	5%	3%	6%	6%	7%	3%	6%
Non-food allergies	17%	11%	14%	16%	17%	13%	19%

Indicator Data: Canada and Provinces

Man	Sask	Alta	BC	Yuk	NWT	Canada	Indicator (see Notes and Sources)
							Well-being
24%	18%	26%	23%			26%	Excellent health (self-rated)
10%	11%	9%	8%			9%	High psychological well-being
51%	51%	52%	50%			50%	Job satisfaction ("very satisfied")
							Function
21%	23%	22%	22%			20%	Long term activity limitation
1.00	0.84	0.89	0.91			0.84	Disability-days (past 2 weeks)
26%	22%	26%	23%			25%	Perfect health (functional status)
3.6	3.6	2.7	5.6			3.8	Work injuries per 100 workers
Prairies: 69.4			69.8			69.0	Disability-free life expectancy
							Diseases and Conditions
5.4%	5.2%	5.7%	5.0%	6.3%	5.5%	5.7%	Low birthweight rate
West: 6.1%						7%	Infertility rate (% of couples)
							Risk conditions
22%	21%	18%	20%			22%	High blood pressure
36%	35%	33%	28%			32%	Overweight
15%	17%	11%	17%			15%	High blood cholesterol
							Mental health
8%	5%	5%	6%			6%	Depression
29%	25%	25%	26%			26%	High chronic stress
20.4	19.8	19.4	19.4			19.7	Work stress index
Prairies: 8.3%			7.5%			8%	Dementia, 65+
							Sexually transmitted diseases
1.2	0.9	3.5	6.3	0.0	0.0	4.2	AIDS
83	49	31	16	72	291	24	Gonorrhoea
292	230	195	150	519	1545	154	Chlamydia
							Vaccine-preventable diseases
0.1	0.1	0.4	0.6	0.0	0.0	0.7	Measles
5.8	23.8	34.7	15.2	200.0	228.9	25.7	Pertussis (whooping cough)
69	146	133	167	134	178	115	Enteric (intestinal) infections
							Cancer incidence
343	320	319	335	261	330	334	Women
456	430	412	440	361	351	459	Men
							Chronic conditions
15%	17%	13%	12%			12%	Arthritis
6%	6%	6%	6%			6%	Asthma
16%	15%	16%	16%			13%	Back problems
7%	9%	7%	7%			5%	Food allergies
15%	19%	19%	19%			17%	Non-food allergies

Indicator Data: Canada and Provinces

Indicator (see Notes and Sources)	Canada	Nfld	PEI	NS	NB	Que	Ont
Deaths							
Potential years of life lost							
Rate per 1,000 - men							
Cancer	17.2	19.0	15.8	19.0	17.3	20.0	16.6
Cardiovascular diseases	15.8	21.7	19.3	17.0	18.1	17.4	15.8
Injuries	21.6	17.4	25.6	19.6	27.7	24.4	15.8
Suicide	7.4	5.8	5.7	6.1	9.1	10.7	4.9
Rate per 1,000 - women							
Cancer	15.1	15.6	14.0	17.6	14.7	15.6	14.9
Cardiovascular diseases	6.0	7.0	9.4	6.6	5.9	6.4	5.9
Injuries	7.2	4.4	8.8	5.2	9.7	7.0	6.1
Suicide	1.8	1.5	0.9	1.2	1.5	2.4	1.5
Smoking-attributable deaths (%)							
Women	15.0		Atlantic: 14.4			16.7	14.2
Men	26.4		Atlantic: 28.6			30.2	25.1
Infant mortality rate	6.3	7.6	5.8	6.3	6.5	5.7	6.1
Death rates/100,000 population							
Cardiovascular	136	174	159	150	148	140	137
Cancer	145	155	159	164	151	159	142
Injuries	41	46	46	41	42	43	34
Suicide	12	12	12	9	11	16	8
All causes	505	566	538	551	524	517	500
Length of Life							
Life expectancy							
Women	81.1	79.8	81.3	80.4	80.6	81.2	81.1
Men	75.1	73.9	74.8	74.2	74.8	74.5	75.5
Total	78.2	76.7	78.0	77.3	77.7	77.9	78.3

Indicator Data: Canada and Provinces

Man	Sask	Alta	BC	Yuk	NWT	Canada	Indicator (see Notes and Sources)
							Deaths
							Potential years of life lost
							Rate per 1,000 - men
18.4	15.5	14.5	14.8	26.0	24.4	17.2	Cancer
16.1	15.1	13.6	12.5	20.5	16.5	15.8	Cardiovascular diseases
22.7	25.1	25.0	27.8	42.4	67.0	21.6	Injuries
7.2	7.6	9.0	6.3	13.9	33.4	7.4	Suicide
							Rate per 1,000 -women
14.2	14.1	14.9	14.6	16.2	24.3	15.1	Cancer
6.7	6.8	5.8	5.2	0.9	7.4	6.0	Cardiovascular diseases
7.9	8.2	9.4	8.7	11.2	25.8	7.2	Injuries
2.3	2.3	1.8	1.6	0.0	4.3	1.8	Suicide
							Smoking-attributable deaths (%)
Prairies: 13.6			16.9			15.0	Women
Prairies: 22.9			26.1			26.4	Men
6.8	7.9	6.9	6.2	7.5	12.9	6.3	Infant mortality rate
							Death rates
137	126	125	121	109	165	136	Cardiovascular
144	126	135	130	155	185	145	Cancer
41	49	52	46	108	128	41	Injuries
11	14	17	12	9	17	12	Suicide
511	466	491	485	594	789	505	All causes
							Length of Life
							Life expectancy
80.8	81.8	81.4	81.4	80.4	78.0	81.1	Women
75.0	75.2	75.5	75.8	71.3	70.2	75.1	Men
77.9	78.4	78.4	78.6	74.9	73.6	78.2	Total

Indicator Data: Canada and Provinces

Indicator	Canada	Nfld	PEI	NS	NB	Que	Ont
Living and Working Conditions							
Education Completed							
Less than high school	26%	40%	33%	29%	32%	32%	23%
University degree	15%	8%	11%	12%	13%	15%	17%
Literacy rate	63%	39%	—(*)	57%	56%	57%	62%
Poverty rate, 1994							
All children under 18	20%	23%	13%	21%	18%	20%	18%
Children in lone-parent families	60%	68%	60%	67%	62%	64%	56%
Persons age 65+	19%	15%	13%	13%	17%	28%	15%
Income inequality							
Women's wages as % of men's	70%	69%	78%	72%	64%	70%	70%
Gini coefficient, 1991	.295	.297	.264	.301	.283	.274	.293
Unemployment rate							
Age 15+	10.6%	19.6%	19.1%	13.9%	13.8%	13.2%	9.3%
Youth age 20-24	14.8%						
Housing							
Renter households "in need"	25%	25%	32%	25%	28%	26%	23%
Violence							
Ever experienced violence	51%	33%	51%	50%	46%	46%	53%
Personal Health Practices and Coping Skills							
Lifestyle practices							
Regular exercise	20%	16%	14%	16%	20%	15%	20%
Always wear bicycle helmet	19%	20%	15%	20%	12%	14%	22%
Smoking	29%	31%	31%	33%	31%	34%	27%
Regular heavy drinking	14%	23%	18%	16%	19%	11%	14%
Drinking driving in past month	19%	14%	13%	13%	12%	20%	18%
2+ sexual partners in past year	9%	5%	9%	8%	6%	10%	8%
Teen pregnancy rate	41	35	36	44	36	29	39
Breastfed last child	44%	22%	26%	30%	22%	29%	50%
Fat consumption (% of calories)	36%						
Social support and coping							
High social support	83%	87%	88%	86%	85%	76%	86%
High chronic stress	26%	16%	20%	27%	26%	24%	27%

* Data unavailable due to small sample.

Indicator Data: Canada and Provinces

Man	Sask	Alta	BC	Yuk	NWT	Canada	Indicator
							Living and Working Conditions
							Education
32%	32%	22%	17%			26%	Less than high school
12%	12%	14%	16%			15%	University degree
65%	72%	71%	69%			63%	Literacy rate
							Poverty rate, 1994
23%	23%	19%	21%			20%	All children under 18
70%	66%	58%	59%			60%	Children in lone-parent families
23%	12%	19%	20%			19%	Persons age 65+
							Income inequality
74%	69%	69%	70%			70%	Women's wages as % of men's
.287	.307	.317	.297			.295	Gini coefficient
							Unemployment rate
8.5%	7.0%	8.4%	9.8%			10.6%	Age 15+
						14.8%	Youth age 20-24
							Housing
25%	23%	23%	31%			25%	Renter households "in need"
							Violence
49%	46%	58%	59%			51%	Ever experienced violence
							Personal Health Practices and Coping Skills
							Lifestyle behaviours
20%	17%	23%	29%			20%	Regular exercise
6%	7%	20%	29%			19%	Always wear bicycle helmet
29%	29%	28%	26%			29%	Smoking
19%	22%	16%	14%			14%	Regular heavy drinking
18%	22%	21%	19%			19%	Drinking driving in past month
10%	6%	10%	11%			9%	2+ sexual partners past year
60	58	55	45	85	145	41	Teen pregnancy rate
53%	48%	53%	57%			44%	Breastfed last child
						36%	Fat consumption (% of calories)
							Social support and coping
84%	86%	87%	85%			83%	High social support
29%	25%	25%	26%			26%	High chronic stress

Indicator Data: Canada and Provinces

Indicator	Canada	Nfld	PEI	NS	NB	Que	Ont
Physical environment							
Environmental tobacco smoke							
Smoke-free schools	65%	66%	65%	78%	59%	15%	93%
Smoke-free workplaces	39%	52%	—(*)	49%	38%	25%	48%
Energy consumption per capita	305	244	168	260	296	215	262
Residential water use per person	340	Atlantic: 407				429	262
Health Services							
Hospitalization							
Separation rate	125	131	175	148	161	110	118
Average days stay	11	9	8	9	10	7	10
Use of preventive services							
BP check in past year	68%	66%	66%	70%	68%	65%	70%
Pap test in past 3 years	82%	77%	79%	81%	76%	84%	82%
Ever had mammogram	60%	38%	49%	48%	53%	65%	59%
Employee health benefits							
Disability insurance	61%	48%	50%	59%	50%	59%	65%
Medical benefits	56%	41%	45%	56%	50%	60%	59%
Dental benefits	55%	35%	41%	49%	47%	48%	63%
Health expenditures							
$ per capita, 1994							
Public sector	1780	1721	1563	1596	1704	1646	1824
Private sector	698	538	737	634	685	617	790
Total	2478	2259	2299	2231	2389	2263	2614
Total as a % of GDP	9.7	13.5	12.7	11.3	12.1	9.9	9.5

* Data unavailable due to small sample.

Indicator Data: Canada and Provinces

Man	Sask	Alta	BC	Yuk	NWT	Canada	Indicator
							Physical Environment
							Environmental tobacco smoke
72%	65%	49%	67%	57%		65%	Smoke-free schools
37%	37%	31%	47%			39%	Smoke-free workplaces
234	514	782	251	374		305	Energy consumption per capita
	Prairies: 261		468	531		340	Residential water use
							Health Services
							Hospitalization
136	191	137	125			125	Separation rates
11	9	7	14			11	Average days' stay
							Use of preventive services
70%	66%	67%	63%			68%	BP check in past year
74%	73%	80%	70%			70%	Pap test in past 3 years
56%	56%	60%	62%			60%	Ever had mammogram
							Employee health benefits
65%	60%	58%	56%			61%	Disability insurance
49%	35%	48%	59%			56%	Medical benefits
57%	55%	55%	57%			55%	Dental benefits
							Health expenditures
							$ per capita, 1994
1839	1726	1777	1927	2805	5193	1780	Public sector
708	626	623	704	426	411	698	Private sector
2547	2352	2400	2631	3231	5604	2478	Total
11.5	10.3	7.9	9.7	10.6	18.4	9.7	Total as a % of GDP

Indicator Data: Notes and Sources

Indicator	Appendix Reference (*)	Notes and Sources
Well-being		
Excellent health (self-rated)	[56]	Age 12+. NPHS(**) 1994-95.
High psychological well-being	[57]	Age 18+. NPHS 1994-95. "High" is a score of greater than 73 (the approximate 90th percentile) on the Sense of Coherence Scale.
Job satisfaction	[58]	Percent "very satisfied", of working population age 15+. NPHS 1994-95.
Function		
Long term activity limitation	[59]	Any limitation or disability in normal activities, at home, school, or work, age 12+. NPHS 1994-95.
Disability-days (in past 2 weeks)	[62]	All ages. NPHS 1994-95.
Perfect health (functional status)	[61]	Percent with perfect health, a score of 1 (100%), based on eight attributes: vision, hearing, speech, mobility, dexterity, cognition, emotion, and pain/discomfort. Age 12+. NPHS 1994-95.
Work injuries per 100 workers resulting in time off work	[63]	Statistics Canada. Health Statistics Division. Calculated with data from the National Work Injuries Section and the Labour Force Survey Subdivision.
Disability-free life expectancy at birth	[82]	1991 data. Wilkins, R., Chen, J., & Ng, E. (Statistics Canada, Health Statistics Division). The consequences of disease and impairment: Trends in disability, dependency, and health expectancy from 1986 to 1991. Presentation to the Health Policy Division, Health Canada, April 1995 (revised).
Diseases and Conditions		
Low birthweight	[65]	% of all live births 1993 data. Statistics Canada. Births and deaths, 1993.
Infertility rate (% of couples)	[67]	Prevalence of infertility, women age 18-44. 2-year infertility rates are shown. 1-year rates are 8.5% (Canada), 10.3% (Atlantic), 7% (Quebec), 9.2% (Ontario), 8.3% (West). Royal Commission on New Reproductive Technologies, 1993.

* The most closely related topic on the Technical Appendix is listed. Note that definitions vary in some instances.

** NPHS - National Population Health Survey

Indicator	Appendix Reference	Notes and Sources
Risk conditions		Age 18-74. 1986-92. Canadian Provincial Heart Health Surveys Research Group (C. Balram, P. Connelly, D. Gelskey, et al.).
High blood pressure	[69]	
High blood cholesterol	[69]	
Overweight	[68]	Overweight to the point of probable health risk (Body Mass Index 27 or greater), age 18-74+. NPHS 1994-95.
Mental health		
Depression	[78]	"Probable" risk of clinical depression, age 12+. NPHS 1994-95.
High chronic stress	[12]	Age 18+. NPHS 1994-95.
Work stress index	[77]	Average work stress score, minimum score 0, maximum score 45, working population age 15-74. NPHS 1994-95.
Dementia	[80]	Dementia rate, percent of population age 65+ in communications and institutions. Canadian Study of Health and Aging Working Group. (1994). Canadian Study of Health and Aging: Study methods and prevalence of dementia. Canadian Medical Association Journal, 150(6), 899-913.
Sexually transmitted diseases		
AIDS	[74]	Reported cases per 100,000 population, 1993.(*) Health Canada, Laboratory Centre for Disease Control, Bureau of Communicable Disease Epidemiology. (1995, February). Notifiable Disease Annual Summary 1993. Supplement to Canada Communicable Disease Report, Volume 21S1.
Gonorrhoea	[73]	Reported cases per 100,000 population, 1993[1]. Health Canada, Laboratory Centre for Disease Control, Bureau of Communicable Disease Epidemiology. (1995, February). Notifiable Disease Annual Summary 1993. Supplement to Canada Communicable Disease Report, Volume 21S1.
Chlamydia	[73]	
Vaccine-preventable diseases		Reported cases per 100,000 population, 1993. Health Canada, Laboratory Centre for Disease Control, Bureau of Communicable Disease Epidemiology. (1995, February). Notifiable Disease Annual Summary 1993. Supplement to Canada Communicable Disease Report, Volume 21S1.
Measles	—	
Pertussis	—	

*Not in Technical Appendix

Indicator	Appendix Reference	Notes and Sources
Enteric infections	—	Reported cases per 100,000, 1993, for amoebiasis, campylobacteriosis, giardiasis, hepatitis A, salmonellosis, shigellosis. Health Canada. (1995, February). Notifiable Disease Annual Summary 1993. Supplement to Canada Communicable Disease Report, Volume 21S1.
Chronic conditions		Percent with diagnosed chronic conditions.
Arthritis	[72]	Age 12+. NPHS 1994-95.
Asthma	[72]	Age 12+. NPHS 1994-95.
Back problems	[72]	Age 12+. NPHS 1994-95.
Food allergies	[72]	Age 12+. NPHS 1994-95.
Non-food allergies	[72]	Age 12+. NPHS 1994-95.
Cancer incidence		National Cancer Institute of Canada and Statistics Canada, Health Statistics Division. Data based on annual averages for 1987-1991, age standardized to the 1991 Canada population.
Women	[76]	
Men	[76]	
Premature Death		
Potential years of life lost		PYLL prior to age 75, 1993. Surveillance Development Division, Laboratory Centre for Disease Control, Health Canada. Age standardized rates per 1,000, 1991 Canada population as standard.
Cancer (ICD9140-208)	[83]	
Cardiovascular disease (ICD9390-488)	[83]	
Injuries (ICD9800-999)	[83]	
Suicide (ICD9E950-E959)	[83]	
Smoking-attributable deaths	[84]	Smoking-attributable deaths as a percent of all deaths, 1991. Makomaski Illing, E.M., & Kaiserman, M.J. (1995). Mortality attributable to tobacco use in Canada and its regions, 1991. Canadian Journal of Public Health, 86(4), 257-265.
Infant mortality rate	[86]	Infant deaths per 1,000 live births, (three year average, 1991-1993). Calculated from data in Statistics Canada, Births and deaths, 1993, Tables 5.6 and 3.1.
Death rates		Age standardized mortality rates per 100,000 population, 1992. Cardiovascular disease = coronary heart disease and stroke. Statistics Canada, Health Statistics Division. Health Indicators, 1994.
Cardiovascular diseases	[87]	
Cancer	[87]	
Injuries and violence	[87]	
Suicide	[87]	
All causes	[87]	

Indicator	Appendix Reference	Notes and Sources
Length of Life		
Life expectancy		
Women	[82]	Life expectancy at birth, 1994. Statistics Canada. Health Statistics Division (1996). Births and deaths, 1994.
Men	[82]	
Total	[82]	
Living and Working Conditions		
Education		
Less than high school	[7]	Age 20+. NPHS 1994-95.
University degree	[7]	Age 20+. NPHS 1994-95.
Literacy rate	[10]	Reading skill level 4 (ability to meet everyday living requirements), age 16-69, 1989. Statistics Canada. (1991). Adult literacy in Canada: Results of a national survey, 1989.
Poverty rate, 1994		
All children under 18	[8]	Percent of persons below the 1992-based low income cut-off points, all children under age 18, children in female lone-parent families, and all persons age 65+, 1994. Statistics Canada. Survey of Consumer Finances. In Statistics Canada. (1996). Low income persons, 1980-1994. Cat. No. 13-569-XPB.
Children in lone-parent families	[8]	
Persons age 65+	[8]	
* NPHS 1994-95: Statistics Canada. National Population Health Survey 1994-95.		
Income inequality		
Women's wages as a % of men's	[8]	Statistics Canada. Earnings of men and women in 1994. Cat. No. 13-217. Figures are for full-year full-time workers. (Not in Technical Appendix)
Gini coefficient	[8]	A summary measure of income inequality, where 0 = perfect equality and 1.0 = one family receiving all the income and the rest receive nothing. Statistics Canada. (1992). Income after tax, distributions by size in Canada. Cat. No. 13-210.
Unemployment rate		
Age 15+	[9]	Statistics Canada. Labour Division. Labour force statistics, 1995. Figures are as of January, 1995.
Youth age 20-24	[9]	

Indicator	Appendix Reference	Notes and Sources
Housing		
Renter households “in need”	—	Percent of renter households in core housing need, an index used by CMHC, consists of suitability (crowding), adequacy (needing major repairs) and affordability (based on 30% of gross household income) Canada Mortgage and Housing Corporation, Research Division. 1991 Core Housing Need Database. Derived from Household Income (1990), Facilities and Equipment (1991), Shelter Cost (1990) (HIFE/SCS 1991) microdata file, disseminated by the Households Surveys Division of Statistics Canada. Prepared by B.C. Ministry of Housing, Recreation, and Consumer Services.
Violence		
Ever experienced violence, women	[11]	Percent of women age 18+ who report that they have ever experienced physical or sexual violence since age 16. Violence is behaviour that could be considered a criminal offence, ranging from unwanted sexual touching to physical attack resulting in injury. Statistics Canada. Violence Against Women Survey, 1993.
Personal Health Practices and Coping Skills		
Lifestyle behaviours		
Regular exercise	[52]	Age 12+. NPHS 1994-95.
Always wear bicycle helmet	[53]	Bicycle riders Age 12+. NPHS 1994-95.
Smoking	[44]	Current smokers, age 12+. NPHS 1994-95.
Regular heavy drinking	[48]	Five or more drinks on one occasion,12 or more times in previous year, age 12+. NPHS 1994-95.
Drinking driving in past month	[54]	Age 15+. Health and Welfare Canada, Stephens, T., & Fowler Graham, D. (Eds.). (1993). Canada’s Health Promotion Survey 1990: Technical report Ottawa: Minister of Supply and Services Canada (Catalogue No. H39-263/2-1990E).
2+ sexual partners in past year	[55]	Age 15+. Canada’s Health Promotion Survey 1990. Public use microdata file.
Teen pregnancy rate	[6]	Births, abortions, and stillbirths per 1,000 women age 15-19, 1991. Statistics Canada, Health Statistics Division.

Indicator	Appendix Reference	Notes and Sources
Breastfed last child	[51]	Percent of mothers who breastfed last child, of mothers age 15+ in 1990 (regardless of year last child was born).. Stephens, T., & Fowler Graham, E. (Eds.). (1993). Canada's Health Promotion Survey 1990: Technical Report.
Fat intake (% of calories)	[50]	Estimated percent of energy consumed as fat, based on food purchase data. Statistics Canada. Family Food Expenditure in Canada. Custom tabulation (AGNAP program in Agriculture and Agri-Food Canada).
Social support and coping		
High social support	[31]	High level of social support, age 12+. NPHS 1994-95.
High chronic stress	[12]	Age 18+. NPHS 1994-95.
Physical Environment		
Environmental tobacco smoke		
Smoke-free schools	[13]	Percent of schools with complete smoking ban indoors and out. T. Stephens and Associates and Goss Gilroy Inc. (1995, August). A survey of smoking policies in various settings in Canada. Prepared for Health Canada.
Smoke-free workplaces	[16]	Percent of workers age 15+ where smoking is allowed "nowhere" at work. Health Canada. Survey of Smoking in Canada, Cycle 2, 1994, Fact Sheet #7.
Energy consumption per capita		Net domestic consumption, gigajoules per capita, 1993. Statistics Canada. (1995, June). Environmental perspectives: Studies and statistics. Cat. No. 11-528E, No. 2, p. 110. Ottawa: Minister of Industry, Science, and Technology.
Residential water use	—	Residential water use, in litres per person per day, 1991. Environment Canada's Municipal Water Use Database. In State of the Environment (SOE) Bulletin No. 94-1, February 1994.
Health Services		
Hospitalization		Hospital separations per 1000 population. 1992/93 data. Statistics Canada. Health Statistics Division. Data prepared for Health Indicators 1995.
Separation rate	[23]	
Average days' stay	[23]	
Use of preventive services		
BP check in past year	[29]	Age 12+. NPHS 1994-95.
Pap test in past 3 years	[27]	Of women age 16+. NPHS 1994-95.
Ever had mammogram	[28]	Percent of women age 35+ who have ever had a mammogram. NPHS 1994-95.

Indicator	Appendix Reference	Notes and Sources
Employee health benefits		
Disability insurance	[37]	Percent of paid workers 15+. Statistics Canada.
Medical benefits	[37]	General Social Survey, Cycle 6: Health Status of
Dental benefits	[37]	Canadians, 1991. Public use microdata file.
Health expenditures		
$ per capita, 1994	—	Health Canada. Policy and Consultation Branch.
Public sector	—	(1996, January). National health expenditures in
Private sector	—	Canada: 1975-1994. Summary Report, Tables
Total	—	9B, 11B, 12B, and 15. Cat. H21-99/1994-2.
Total as a % of GDP		Ottawa: Ministry of Supply and Services Canada.

* NPHS 1994-95: Statistics Canada. National Population Health Survey 1994-95.

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