How healthy are Canadians?

This report is a summary of the articles that originally appeared in *How healthy are Canadians*?, a special issue of *Health Reports*, Volume 11, Number 3, released by Statistics Canada on March 31, 2000 (Statistics Canada, Catalogue 82-003).

Statistics Canada and the Canadian Institute for Health Information (CIHI) are reporting jointly on the health of the population and the performance of the health care system in order to provide information and background so Canadians and decision-makers in the health system can better judge the factors and complex decisions that contribute to improvements in health. The articles in *Health Reports*, which are summarized in this report, focus on health status. The companion publication, *Health Care in Canada 2000: A First Annual Report*, released by CIHI on April 26, 2000, focuses on the health care system.

This report shows that Canada has made great progress. Life expectancy has increased, infant mortality rates have been reduced, and quality of life in middle age and the older years has improved. However, income-related disparities in health status and access to services, depression among young women, heavier drinking among young men, and increases in diabetes among men and in asthma and migraine headaches among women in middle age are causes of concern.

These summaries are also available on the Statistics Canada Web site at www.statcan.ca/english/ads/82-003-XPB/toc.htm.

Health status of children

- The 20th century has seen a dramatic decline in infant mortality in Canada and an accompanying decline in regional disparities in infant mortality.
- Regional disparities have continued to decline in recent years, but income-related disparities in infant mortality rates have ceased to diminish. By 1996, rates in the poorest neighbourhoods were still two-thirds higher than those in the richest neighbourhoods.
- Infant mortality in Canada's poorest neighbourhoods is now significantly lower than the national rate for the United States. However, the infant mortality rate in Canada's richest neighbourhoods is currently not much better than the national rate for Sweden.
- Since 1971, Canada has seen dramatic reductions in child mortality due to most external causes of death (accidents, poisoning and violence). Nevertheless, there has been an increase in suicides among children.
- Most Canadian children are in very good health, but socioeconomic differences are evident from an early age. Children whose parents have a low level of education are more likely to have poorer perceived health and are less likely to enjoy unbroken good health.

Canada made tremendous progress against infant mortality during the 20th century. In 1901, the infant mortality rate was 134 deaths for every 1,000 population under the age of 1, meaning that about 1 in 7 newborns died before their first birthday. By 1997, the rate had fallen to 5.5 deaths for every 1,000, with only 1 in 182 newborns failing to survive their first year.

Regional differences in infant mortality are now quite small in absolute terms, and are only a fraction of what they were in the early 1950s. Income-related differences have also diminished substantially, although in 1996, they were still nearly three times as large as regional differences. In 1996, the infant mortality rate in Canada's poorest urban neighbourhoods was 6.5 deaths for every 1,000 population under the age of 1, compared with 3.9 deaths for every 1,000 in the richest neighbourhoods. If the overall rate for Canada had been as low as that of the richest neighbourhoods, there would have been about 500 fewer infant deaths in 1996.

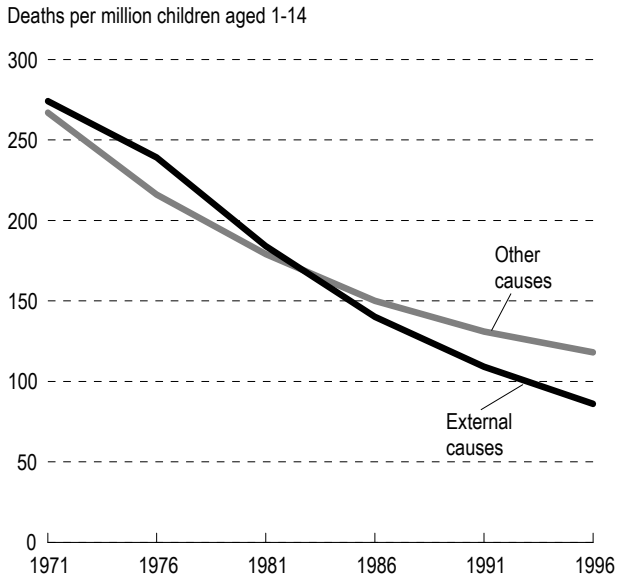
Nonetheless, infant mortality in Canada's poorest neighbourhoods is now significantly lower than the national rate for the United States. But while Canada's progress against infant mortality looks good from a North American perspective, it is less impressive compared with Europe. During the 1990s, the decline in infant mortality in Canada did not keep pace with that of France, Sweden or Britain. The rate in Canada's richest neighbourhoods is currently not much better than Sweden's national rate.

The recent reductions in infant mortality were realized even without a reduction in low birth weight, a well-known risk factor for infant mortality. The rate of low birth weight was 5.6 % in 1991 and 5.8% in 1996. During the same period, the rate among teenage mothers rose from 6.6% to 7.1%. This increase occurred at the same time as the smoking rate among teenagers went from 23% to 29%. Smoking is the single most important modifiable risk factor contributing to low birth weight births. Consequently, future reductions in low birth weight rates may depend, in large part, on the success of programs to convince young women not to become smokers, and that encourage smokers to quit.

Mortality among children aged 1 to 14 is now exceptionally rare. Only 1 in 366 children who survived infancy in 1996 was expected to die before his or her 15th birthday. In 1901, the comparable risk had been 1 in 7.

Between 1971 and 1996, mortality rates due to external causes, neoplasms, congenital anomalies and nervous system diseases declined by at least 50%. Mortality from external causes alone fell by 70%. The two major contributors to this reduction were deaths of child pedestrians hit by motor vehicles, which fell by almost 90%, and deaths from accidental drowning, which fell by 77%.

Mortality rates, children aged 1 to 14, Canada, 1970-1972 to 1995-1997



Data source: *Statistics Canada, Annual Demographic Statistics 1998; Canadian Mortality Data Base*

Health in mid-life

- Most Canadians enjoy good health in their middle years, although, not surprisingly, health declines with age.
- Over the past 20 years, the prevalence of several chronic conditions and activity limitation due to a health problem has declined for those aged 45 to 64. At the same time, the prevalence of asthma and migraine headaches has increased for women aged 45 to 64, while diabetes and asthma have increased among men in the same age group.
- Lower levels of education and income are associated with chronic illness and with an increased likelihood of a decline in health.

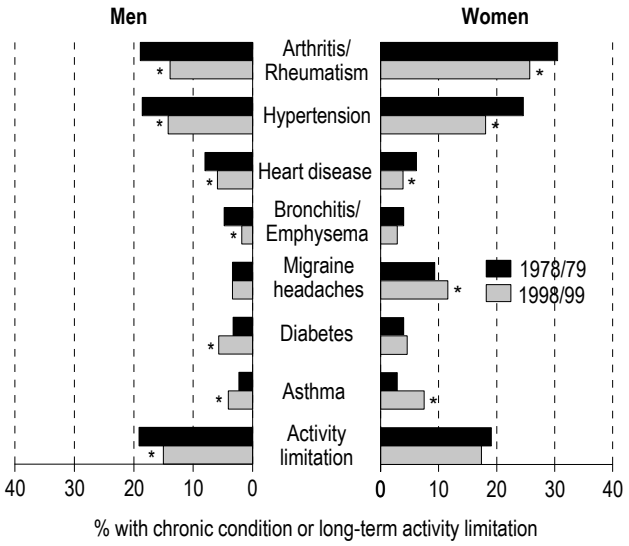
Most Canadians enjoy good health in their middle years; that is, from age 25 to 64. While the proportion of adults who report poorer health increases with age, there were both improvements and declines in self-perceived health from 1994/95 to 1998/99.

Among the 1.3 million individuals aged 25 to 64 who reported fair or poor health in 1994/95, more than half (52%) reported an improvement by 1998/99, assessing their health as excellent, very good or good. By contrast, of the 13.8 million individuals who reported excellent, very good or good health in 1994/95, only 5% reported a decline to fair or poor health four years later.

Lower levels of education and income were associated with a decline in health and with chronic illness.

During the past 20 years, the prevalence of a number of chronic conditions has declined among Canadians aged 45 to 64 (many of whom are "baby boomers"). For example, arthritis or rheumatism, high blood pressure and heart disease are less prevalent among people in this age group. However, the prevalence of diabetes, which is a risk factor for heat disease, stroke, blindness, kidney diseases, disability and mortality, has increased among men. The prevalence of migraine headaches has increased among women.

Prevalence of chronic conditions or long-term activity limitation, by sex, household population aged 45 to 64, Canada excluding territories, 1978/79 and 1998/99



Data sources: *1978/79 Canada Health Survey; 1998/99 National Population Health Survey, cross-sectional sample, General file*
** Significantly different from 1978/79, p < 0.05*

Health among older adults

- Longer life expectancy in Canada does not inevitably mean that individuals spend more years in poor health. Compared with 20 years ago, older adults can expect improved quality and extended quantity of life.
- Aging does not necessarily result in a continuous decline in health. Close to half of seniors who reported fair or poor health in 1994/95 reported an improvement in 1998/99.
- Despite longer life expectancy, the rate of institutionalization of Canadians aged 75 or older fell from 16% in 1981 to 14% in 1996.
- The rate of activity limitation among 65- to 74-year-olds who live at home has declined since 1978/79; among those aged 75 or older who live at home, the rate remained stable.
- The socioeconomic trends observed in younger age groups continue among older adults, although less markedly. Seniors who did not graduate from high school have increased odds of dying, while those with low incomes have increased odds of institutionalization.

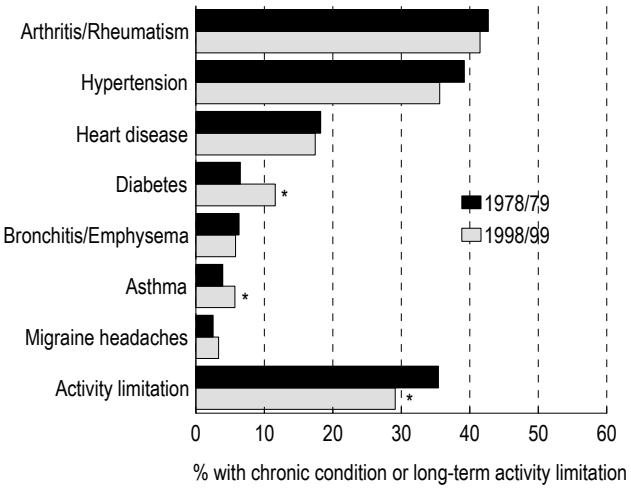
Canadians who turn 65 in the year 2000 can expect to celebrate quite a few more birthdays than was the case a century ago. In 1900, a 65-year-old man would have been expected to live an additional 11 years; a 65-year-old woman, an additional 12 years. By 1996, men could expect to live an additional 16 years beyond 65, and women, an additional 20 years. But are these additional years of good or poor health?

The prevalence of most chronic conditions among seniors has not changed significantly during the past two decades. Moreover, the prevalence of activity limitation decreased among 65- to 74-year-olds and remained stable among those aged 75 or older. As well, the proportion of those aged 75 or older residing in long-term health care institutions has declined. These trends occurred even though the average age of the senior population increased as a result of longer life expectancy.

In 1998/99, the vast majority of seniors, a little less than 80%, reported their health as excellent, very good or good. And of the 560,000 seniors who had reported fair or poor health in 1994/95, close to half (46%) reported an improvement to excellent, very good or good health in 1998/99. Among the much larger group (2 million) who reported excellent, very good, or good health in 1994/95, only 15% reported a decline to fair or poor health four years later.

This analysis supports a theory known as "compression of morbidity." According to this theory, if the age of onset of debilitating chronic conditions increases more rapidly than life expectancy, then the period between the onset of illness and the end of life is shortened, resulting in more years of better health. The comparison of 1978/79 and 1998/99 data shows that as well as a longer life, older adults can now expect an improved quality of life.

Prevalence of chronic conditions or long-term activity limitation, household population aged 65 or older, Canada excluding territories, 1978/79 and 1998/99



Data sources: *1978/79 Canada Health Survey; 1998/99 National Population Health Survey, cross-sectional sample, General file*
** Significantly different from 1978/79, p < 0.05*

Psychological health – depression

- The prevalence of depression is twice as high among women as among men, and is much more common among younger than older women.
- Depression is a chronic disease: one episode is highly predictive of future episodes.
- Social support may be protective. Women who lacked emotional support had higher odds of a future depressive episode, compared with women who had adequate emotional support.
- Although there is a strong association between smoking and depression, the underlying reasons are complex.

According to the 1998/99 National Population Health Survey, 4.3% of individuals aged 12 or older reported symptoms strongly suggesting that they had experienced at least one major depressive episode in the previous year. This compares with 5.2% in 1994/95 and 4.1% in 1996/97.

The prevalence of depression was not uniform across age groups—it peaked among 15- to 24-year-olds, declined in mid-life, and was lowest among those aged 65 or older.

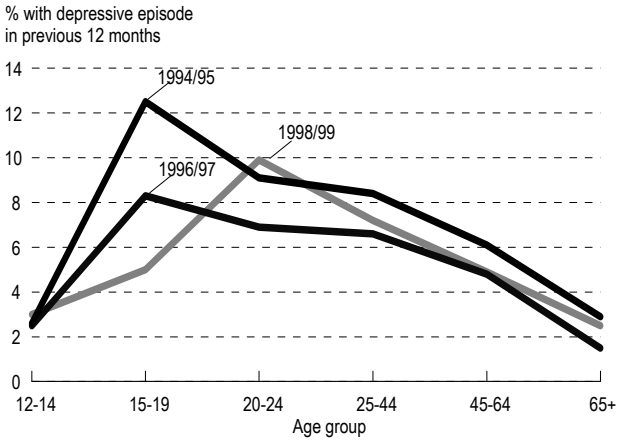
Depression was almost twice as prevalent among women as men. In 1998/99, for example, 5.7% of women, compared with 2.9% of men, reported symptoms that indicated a major episode of depression.

Depression is a chronic disease: one episode is highly predictive of future episodes. Women who had experienced a major episode of depression in the year before their 1996/97 NPHS interview had three times the odds of having an episode in the year before their 1998/99 interview.

Social support may be protective. Women who lacked emotional support had higher odds of having had an episode of depression, compared with women who had emotional support.

Smoking appears to be related to depression, but the underlying reasons are difficult to determine. Compared with non-smokers, people who smoked daily had increased odds of having a major depressive episode two or four years later.

Prevalence of depression, by age group, female household population aged 12 or older, Canada excluding territories, 1994/95, 1996/97 and 1998/99



Data source: *1994/95, 1996/97 and 1998/99 National Population Health Survey, cross-sectional sample, Health file*

Personal health practices

- The proportion of 20- to 24-year-olds who are at least moderately physically active in their leisure time increased between 1994/95 and 1998/99.
- The prevalence of smoking among girls aged 15 to 19 is higher than among teenage boys.
- Heavier drinking (at least five drinks per occasion) increased among both sexes between 1994/95 and 1998/99. Fully 45% of males aged 20 to 24 did so at least monthly in 1998/99.

Heavier or binge drinking (five or more alcoholic drinks on at least one occasion), increased among both sexes between 1994/95 and 1998/99. Men aged 20 to 24 were by far the most likely of any age group to engage in heavier drinking on at least a monthly basis. Fully 45% of them did so in 1998/99, up from 31% in 1994/95. Heavier drinking was also relatively prevalent among teenagers. In 1998/99, 24% of 15- to 19-year-olds had participated in heavier drinking at least monthly, up from 13% four years earlier. The prevalence of heavier drinking was lower among girls than among boys.

At ages 15 to 19, the prevalence of smoking among girls was higher than among boys. In addition, there was a strong association between heavy drinking and smoking.

The proportion of young adults aged 20 to 24 who engaged in at least moderate physical activity in their leisure time increased from 44% in 1994/95 to 54% in 1998/99.

Binge drinking, by age and sex, household population aged 15 or older, Canada excluding territories, 1994/95 to 1998/99

	Binge at least monthly			Binge at least weekly		
	1994/95	1996/97	1998/99	1994/95	1996/97	1998/99
	%			%		
Both sexes						
Total	**11**	**14§**	**15§††**	**4**	**5§**	**5§**
15-19	13	19§	24§††	4‡‡	5	7§
20-24	20	30§	32§	6	11§	10§
25-44	13	16§	17§	4	5§	6§
45-64	9	10	12§††	3	3	4
65+	3	3	3	1‡‡	1‡‡	1‡‡
Men						
Total	**18**	**20§**	**24§††**	**6**	**7§**	**9§**
15-19	17	21	29§††	6‡	7	10‡‡
20-24	31	40§	45§	11	16§	17§
25-44	21	24§	27§††	7	9§	10
45-64	16	16	19§††	6	6	7
65+	5	5	6	2‡‡	2‡‡	2‡‡
Women						
Total	**4**	**7§**	**7§**	**1**	**2§**	**2§**
15-19	8‡‡	16§	19§	†††	4‡‡	3§§
20-24	11	21§	19§	†††	6‡‡	4‡‡
25-44	5	7§	7§	1‡‡	2§	2
45-64	3	4§	5§	1§§	1‡	2‡‡
65+	†††	†††	†††	†††	†††	†††

Data source: *1994/95, 1996/97 and 1998/99 National Population Health Survey, cross-sectional sample, Health files*
§ Significantly different from 1994/95, $p \leq 0.05$
†† Significantly different from 1996/97, $p \leq 0.05$
‡‡ Coefficient of variation between 16.6% and 25.0%
§§ Coefficient of variation between 25.1% and 33.3%
††† Coefficient of variation greater than 33.3%

Health care services – recent trends

- In 1998/99, Canadians with low incomes were more likely than those with higher incomes to: be heavy users of physician services; visit emergency departments; be admitted to hospital; take multiple medications, and require home care services.
- Despite an increase in coverage in most provinces for prescription drug and dental insurance, significant differences in the use of these services remain. Youth, older adults and Canadians with low incomes are less likely to have insurance for dental care and prescription drugs.
- The percentage of Canadians who said they had unmet health care needs increased from 4% in 1994/95 (1.1 million) to 6% in 1998/99 (1.5 million).
- The likelihood of going to hospital increases with age, having a lower income, having less than a secondary education, believing oneself to be in poor health, and being a smoker, physically inactive, or overweight.
- The risk of hospitalization is similar for both female and male smokers. This is an important change from earlier studies that showed smaller relative risks of hospitalization for female smokers.

In 1998/99, 8 out of 10 people aged 12 or older had consulted a medical doctor on one or more occasions in the previous year. By contrast, just 6 out of 10 had consulted a dentist.

People in low-income groups were more likely than those in high-income groups to be heavy users of physician services. By contrast, those in higher income groups were more likely to consult a dentist. This may indicate an uneven distribution of dental insurance. Low-income Canadians, as well as youth and older people, have relatively low rates of coverage for dental care. This is also true for prescription drug coverage.

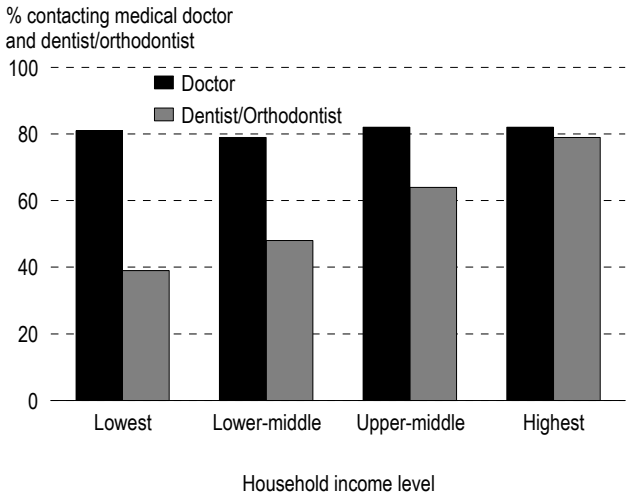
From 1994/95 to 1998/99, the hospitalization rate declined significantly. In 1998/99, about 7% of people aged 12 or older reported that they had been hospitalized in the previous year, down from about 9% four years earlier. Rates declined in all provinces except New Brunswick, where there was an increase. New Brunswick had the highest hospitalization rate (12%) in 1998/99, while Ontario, Alberta and British Columbia had the lowest (7%).

Individuals with high odds of being hospitalized were older people, those with lower incomes, and those with less than a secondary education. In

addition, smokers and people who were physically inactive had high odds of being admitted to hospital.

The lower their household income, the more likely people were to use hospital services. This is not surprising, given the consistent association of lower income with poorer health status. In 1998/99, 12% of people in the lowest income group had been hospitalized in the previous year, compared with 5% of those in the highest income group. People in lower income groups were also more likely to have been hospitalized for three or more days. As well, 24% of people in the lowest income group had been to a hospital emergency department in the previous year, compared with 19% in the highest income group.

Age-adjusted percentage of household population aged 12 or older who contacted medical doctor and dentist/ orthodontist in past 12 months, by household income level, Canada excluding territories, 1998/99



Data source: *1998/99 National Population Health Survey, cross-sectional sample, Health file*

About *Health Reports*

Health Reports is a quarterly journal produced by the Health Statistics Division at Statistics Canada. It is designed for a broad audience that includes health professionals, researchers, policy makers, educators and students. Its mission is to provide high-quality, relevant, and comprehensive information on the health status of the population and the health care system.

To order *Health Reports*, contact:

Marketing Division, Sales and Service
Statistics Canada
Ottawa, Ontario
K1A 0T6
Telephone: (613) 951-7277
1-800-267-6677, toll free in Canada
Fax: (613) 951-1584,
or visit our site on the Internet: www.statcan.ca