Healthy People, Healthy Places

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. not available for any reference period
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... not applicable
0 true zero or a value rounded to zero
0^s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
^{p} preliminary
^{r} revised
x suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E} use with caution
F too unreliable to be published
* significantly different from reference category (p < 0.05)

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Healthy people, healthy places

Introduction

The World Health Organization defined the health of individuals as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity"[1]. This was later expanded to include the ability to realize aspirations and satisfy needs, and cope with or change the environment. They define health as a positive concept that encompasses personal, social and physical resources[1].

Building on these concepts, population health has been defined as "the health outcomes of a group of individuals, including the distribution of such outcomes within the group"[2]. Population health is influenced by "physical, biological, social, and economic factors in the environment, by personal health behaviour, health care services" and so on[1].

Health Indicators are a wide range of measures used to assess and monitor the health of populations as well as inequalities among groups within the population. They facilitate comparisons across time and place at national, provincial, and regional levels.
This understanding informs the design and evaluation of interventions, prevention programs, and policy with the goal of improving the health of Canadians.

This report examines the health of the Canadian population using a selection of Health Indicators that focus on demography, health status, health behaviours, and the environment. First, demographic changes that have resulted in the aging of the population provide a context for the remaining report. Second, measures of health status are presented that reflect physical, mental and social well-being. This is followed by indicators of positive and negative health behaviours that are known to influence health status. Finally, indicators of the social and physical environments in which we live and work are presented. Taken together, these Health Indicators highlight the health of Canadians at a national and provincial/territorial level. They provide benchmarks for comparisons over time and place, from regional to international levels.

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Demographic change

The last century has seen vast changes in Canada's population. With the notable exception of the post-war baby boom (1946 to 1965), there has been a steady decline in fertility, accompanied by a decrease in the death rate and an increase in life expectancy. These changes resulted in the aging of Canada's population. Evidence of this demographic transition can be seen in the median age of Canadians, that is, the age that divides the population in half. In 1956, the median age in Canada was 27.2 years[1]. It climbed to 39.5 in 2006[2] and is projected to reach 46.9 by 2056[1].

Three indicators illustrate the aging of Canada's population: life expectancy, population composition (based on population estimates), and demographic dependency ratios. Life expectancy reflects mortality, and therefore, levels of health and disease in the population. As in other developed countries, life expectancy has increased in Canada and is projected to continue to rise. In 2005, life expectancy was 78.0 years for males and 82.7 years for females[3]. This marks substantial gains since 1956 when life expectancy was 67.7 years and 73.0 years for males and females, respectively[4] And according to projections (based on a medium mortality assumption), males born in 2031 will have an average life expectancy of 81.9 years, and females, 86.0 years[1].

The composition of Canada's population also reflects the demographic shift to an older population with seniors accounting for an ever-increasing proportion of the population. In 2006, 13.7% of Canadians were 65 or older, up from 7.7% in 1956[2]. It is projected that by 2056 seniors will comprise between 25% and 30% of the Canadian population[5]. While the proportion of seniors is increasing, children and young people comprise a decreasing portion of the Canadian population. Mid last century, those aged 19 or younger made up 37% of the population compared with 24% in 2006[6]. It is projected that the proportion of youth in Canada will continue to decline.

Changes in the demographic dependency ratios reveal Canada's shifting age structure. These ratios are the number of young people and/or seniors "dependents" for every 100 people of working-age. Overall stability of Canada's demographic dependency ratio reflects a drop in the ratio for young people that is offset by an increase in the ratio for seniors.

This changing population age structure has social and economic consequences[7]. As many older Canadians retire and relatively fewer young people move into the workforce to replace them, a decreasing percentage of people are available to provide social and economic support for seniors. In 2006, there were 5 working-age people (20 to 64) for every senior, down from 7 in 1971[8]. By 2056, it is projected (based on a medium growth scenario) that there will be only 2 working–age people for every senior in Canada[9].

The demographic shift continues to have an impact on many aspects of our lives, not the least of which is health. Because Canadians are generally living longer than they did a century ago, they are more likely to experience chronic degenerative conditions such as arthritis and diabetes that develop over time and are more common at older ages. Many chronic conditions are accompanied by pain and may result in activity limitations. And because people often live with these conditions well into their senior years, the need for extended periods of informal care and health services grows.

Changes in fertility, death rates and life expectancy provide a backdrop against which to view changes in the health status and other aspects of Canada's population.

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Population composition

Population composition is the description of a population according to characteristics such as age and sex. These data are often compared over time using population pyramids.

Importance of indicator

The composition of the population is part of the social environment. It provides a framework against which to interpret the health status and behaviours of the population.

Background

Among OECD (Organisation for Economic Co-operation and Development) countries, Canada's population has a relatively small percentage of seniors. In Japan 23% of the population is aged 65 or older, 20% in Italy and Germany. By contrast, India, Indonesia, and South Africa are at the other extreme, with 5% to 6% of their population in their senior years[1].

While the overall population is aging, within Canada, the Aboriginal population is relatively young. In 2006, fewer than 5% of the Aboriginal population were aged 65 or older. The median ages of the Aboriginal and non-Aboriginal populations were 27 and 40, respectively[2].

See animated population pyramids

Highlights and graphs

Age group and sex

**Percentage of males and females, by age group, Canada, 2006**
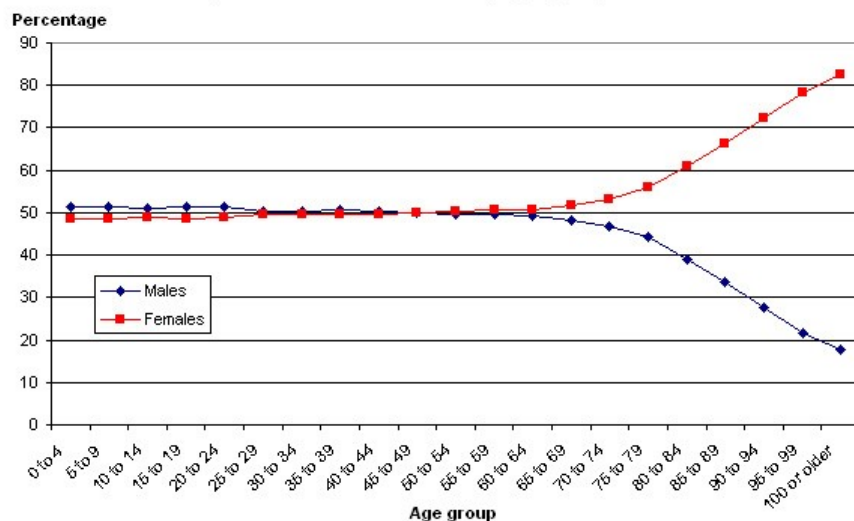
Source : CANSIM Table 051-0001.

- In 2006 354,617 babies were born in Canada; for every 100 girls, 106 boys were born. This was up slightly from 2000 when 327,882 babies were born with the same male to female ratio as in 2006 [3].

- In 2006 males comprised just over half of the population until around age 50 when females, having longer life expectancy, began to outnumber males; among seniors aged 85 or older, there were 2.2 females for every male.

Time trend

Observed and projected percentage of youth, working age population, and seniors, Canada, 1971 to 2056
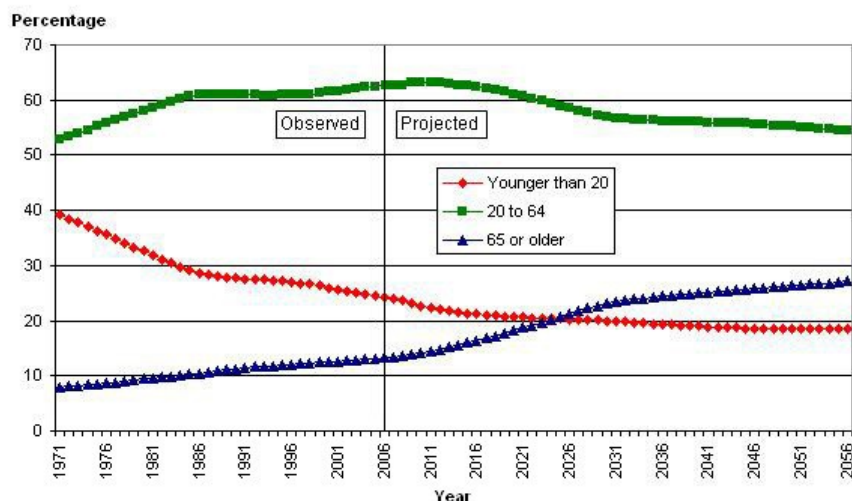
Source: CANSIM Tables 051-0001 (1971 to 2008) and 052-0004 (2009 to 2056).

- Young people under the age of 20 account for an ever decreasing proportion of the population; from 39% in 1971 to 24% in 2006. The size of the youth population is projected to decline to 18% by 2056.

- The working-age population increased as the baby boomers entered the workforce, but will decrease again when they start to leave this population in 2011.

- Seniors currently account for 14% of the population; by 2056, it is projected that their share of the population will rise to more than 27%.

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Life expectancy

Life expectancy is the number of years a person would be expected to live, starting from birth (life expectancy at birth) or at age 65 (life expectancy at age 65), based on the mortality statistics for a given observation period. A widely used indicator of the health of a population, life expectancy measures quantity rather than quality of life.

Importance of indicator

Life expectancy at birth reflects the overall mortality of a population. It summarizes the mortality pattern that prevails across all age groups - children and adolescents, adults and the elderly[1].

Background

The steady increase in life expectancy over the past centuries has been attributed to improved nutrition, better hygiene, access to safe drinking water, effective birth control and immunization and other medical interventions[2].

At every stage of the life cycle, males are more likely than females to die. This difference, evident since industrialization, has created a gender gap in life expectancy[2].

By 2031, average life expectancy in Canada is projected to have risen to 81.9 for males and 86.0 for females, with the gap between the sexes continuing to narrow[3].

People with lower incomes, those living in poorer neighbourhoods, and people residing in the Inuit-inhabited areas tend to have shorter life expectancies[4,5,6,7] than do other Canadians.

Although life expectancy is increasing, not all years will necessarily be spent in full health; on average, Canadians can expect to spend 70 of 80 years in good health[4].

Compared with other OECD (Organisation for Economic Co-operation and Development) countries, Canadian males and females have long life expectancies (78 and 83 years, respectively, in 2005). By comparison, Hungary ranked lowest for males at less than 69 years, while Iceland ranked highest (79 years). For females, Turkey ranked lowest at 74 years, and Japan ranked highest at 86 years.[8].

Highlights and graph

Time trend

Life expectancy at birth, by sex, Canada, 1956 to 2005
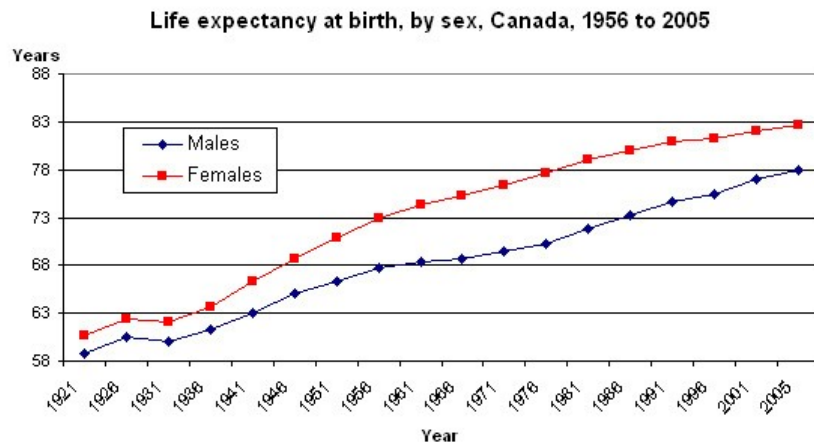
Source: *1921 to 1981: Nagnur D. Longevity and Historical Life Tables, 1921 to 1981 (Abridged), Statistics Canada, Catalogue 98-506, 1986;*
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1991 to 2005: CANSIM Table 102-0511, Life expectancy, abridged life table, at birth and at age 65, by sex, Canada, provinces and territories, annual.

- Between 1921 and 2005, average life expectancy at birth rose substantially in Canada, from 58.8 to 78.0 years for males and from 60.6 to 82.7 years for females.

- The gap between the sexes was less than 2 years in 1921; it increased steadily over the next 50 years to more than 7 years in 1976, and gradually narrowed to fewer than 5 years in 2005.

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Dependency ratio

The total demographic dependency ratio is the ratio of the combined youth population (0 to 19 years) and senior population (65 or older) to the working-age population (20 to 64 years). It is expressed as the number of "dependents" for every 100 "workers":

youth (ages 0 to 19) + seniors (age 65 or older) per 100 workers (aged 20 to 64).

The youth demographic dependency ratio is the ratio of the youth population to the working-age population; the senior demographic dependency ratio is the ratio of seniors to the working-age population.

The demographic dependency ratio is based on age rather than employment status. It does not account for young people or seniors who are working, nor for working-age people who are unemployed or not in the labour force. It merely reflects population age structure and is not meant to diminish the contributions made by people classified as "dependents."

Importance of indicator

A sizeable share of seniors aged 65 or older and children and youth younger than age 20 are likely to be socially and/or economically dependent on working-age Canadians, and they may put additional demands on health services. The demographic dependency ratio measures the size of the "dependent" population in relation to the "working age" population who theoretically provide social and economic support.

Changes in demographic dependency ratios highlight changes in the age composition of the population.
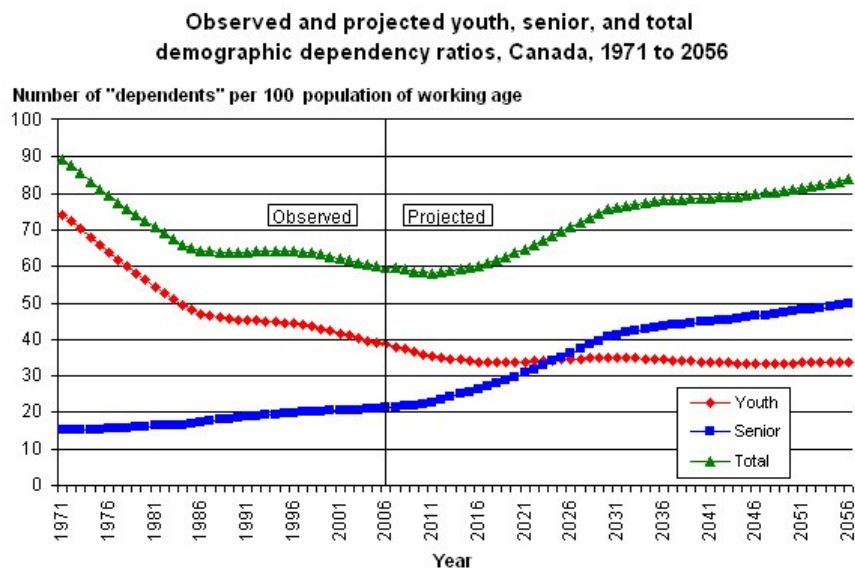
Background

The shrinking percentage of young people means that in the future, the number of workers may be insufficient to finance the pensions of retirees[1].

The increasing senior population relative to working-age people has implications for the care of seniors. Moreover, substantial numbers of women, who historically have been the primary caregivers of children and seniors, have entered the labour force in recent decades. In addition, because many couples have children at older ages, a generation has emerged that is responsible for young children and elderly parents at the same time—the "sandwich generation"[2].

Highlights and graph

Time trend

Observed and projected youth, senior, and total demographic dependency ratios, Canada, 1971 to 2056

Source : CANSIM Tables 051-0001 (1971 to 2008) and 052-0004 (2009 to 2056).

- Between 1971 and 2006, the total demographic dependency ratio fell from 89 to 60 dependents per 100 workers.

- Stability of the total demographic dependency ratio throughout the 1980s and 1990s was attributable to a decreasing youth demographic dependency ratio that was offset by an increasing senior demographic dependency ratio.

- Canada's total demographic dependency ratio is projected to rise to 84 dependents for every 100 people of working age by 2056, as the proportion of seniors increases.

- In 1971, the youth demographic dependency ratio was 74 youth for every 100 working-age people. This dropped to 39 youth in 2006 and is projected to drop further to 34 youth for every 100 working-age people by 2056.

- The opposite trend is evident for seniors. For every 100 working-age people, there were 15 seniors in 1971 and 21 in 2006. By 2056, it is projected that there will be 50 seniors for every 100 workers.

- The decreasing youth demographic dependency ratio and the increasing senior demographic dependency ratio show that more people are moving out of the working age range than into it.

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Health status

At first glance, the question "How healthy are Canadians" is a simple one. However, "health" is a broad concept and difficult to capture with any single measure. For this reason a variety of indicators are presented to help describe the "state of complete physical, mental, and social well-being" that defines health according to the World Health Organization[1].

The first of these indicators are subjective asking Canadians how they feel about their general health, their mental health, and their life stress. What is interesting about these self-perceived measures is that people rate their health in relative terms comparing themselves with others in the community and their expectations[2]. Respondents who report very good or excellent health may indeed be experiencing physical health problems (independent of clinical diagnosis) – positive responses may reflect their ability to cope with and adapt to changing circumstances, to satisfy their needs and fulfill their roles within their families and communities even in the presence of illness or disease. These abilities are part of a broader definition of health[3].

Although "health" is a positive concept, it is often measured by the presence of specific conditions, such as arthritis and diabetes. As opposed to acute, infectious diseases, these are chronic conditions that reflect the type of health concerns that are most prevalent in Canada and other developed countries with aging populations. Longevity allows more time for chronic conditions and their consequences to develop and progress.

Symptoms and other outcomes of disease are also indicators of population health. Chronic pain is useful as it reflects both comorbidity and disease severity. The likelihood of experiencing chronic pain increases with age, and it can have a major impact on quality of life[4]. Like chronic pain the indicator, participation and activity limitation is not disease specific; it provides evidence of how disease processes interfere with life.

Risk factors, rather than outcomes of disease are useful indicators of population health status. Being overweight or obese, for example, is a risk factor for many conditions including Type 2 diabetes, cardiovascular disease, high blood pressure, osteoarthritis, and some cancers, and in itself may limit activities and lower perceptions of health.

Based on the selected health indicators, Canadians are generally healthy, and from 2003 through 2008, the health status of the population remained quite stable. Nonetheless, there are enduring differences between the health of men and women. Women are generally less likely than men to be overweight or obese, or to have diabetes. For all other indicators, with the exception of self-perceived health on which ratings are similar, men tend to rate their health more positively than women do. The paradox is that despite reporting more favourably on most health indicators, men are more likely than women to die at earlier ages (see life expectancy).

The health status of individuals, and the population as a whole, is the end result of many factors. Genetics aside (for which we have no indicator) our health is a direct consequence of behaviours such as diet, alcohol consumption, smoking, and exercise. Characteristics of the environment in which we live and work also influence our health – access to affordable housing, education, and employment for example as well as exposures to toxins such as second-hand smoke. In addition, the health of Canadians is inexorably tied to our country's demographic composition. As the proportion of seniors in the population increases, so too does the prevalence of many chronic conditions. While these place a burden on individuals, families, and the health care system, they are often a consequence of longevity which is itself a positive indicator of the health status of Canadians.

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Perceived health

Perceived health is an indicator of overall health status. Respondents were asked to rate their health as excellent, very good, good, fair, or poor.

Respondents were instructed that "health" means not only the absence of disease or injury, but also includes their overall physical, mental and social well-being. The degree to which individuals consider all these aspects of health in their responses may vary.

Importance of indicator

Perceived health is a subjective measure of overall health status. Individuals' self-assessment of their health may include aspects that are difficult to capture clinically, such as incipient disease, disease severity, physiological and psychological reserves, and social function. Studies have demonstrated that this is a reliable and valid measure, associated with functional decline, morbidity and

mortality. As well, perceived health is often more effective than clinical measures for predicting help-seeking behaviours and health service use. Perceived health is a relative measure—evidence suggests that people assess their health in relation to their circumstances and expectations, and their peers[1,2,3,4,5,6,7,8,9].

Background

As well as physical health and health behaviours, factors that may contribute to differences in perceived health include age, sex, education, income, and psycho-social characteristics[4].

Compared with men, women tend to consider a broader set of factors when rating their overall health. They are more likely to consider the presence of non-life-threatening illness and psychological factors[5].

When people rate their health, they think not only of their current situation, but also of trajectories, declines and improvements[2].

People with a very strong sense of community belonging had much higher odds of reporting excellent or very good perceived health, compared with those whose sense of community belonging was weak, even when other potentially confounding factors were taken into account (age, sex, marital status, socio-economic factors, chronic conditions, employment status, geography)[10].

Among institutionalized seniors, perceived health was associated with mortality. Over a six-year period, those with positive self-perceived health were less likely to die than were those with more negative perceptions, even when age, sex and the presence of chronic conditions were taken into account[6].

Highlights and graphs

Time trend

Age-standardized percentage reporting excellent or very good health, by sex, household population aged 12 or older, Canada, 2003, 2005, 2007, 2008
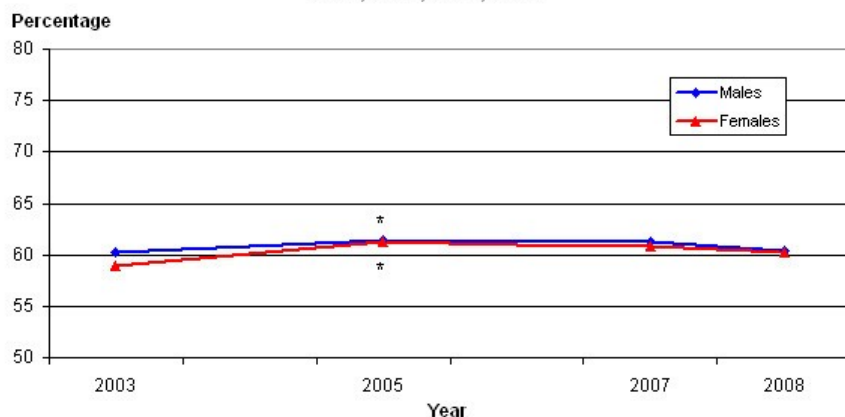
* significantly different from estimate for previous time period (p<0.05)
Note: Age–standardized to Canada population 1991, direct method.
Source: Canadian Community Health Survey, 2003, 2005, 2007, and 2008.

- The age–standardized percentage of people reporting excellent or very good perceived health rose slightly between 2003 and 2005 and remained stable thereafter.

- The differences in the percentages of males and females reporting excellent or very good perceived health was not significant, except in the year 2003.

Note: Age–standardized, direct method to 1991 Canada population.

Age group and sex

Percentage reporting excellent or very good health, by age group and sex, household population aged 12 or older, Canada, 2008

* significantly different from estimate for males (p<0.05)
† significantly different from overall estimate for same sex (p<0.05)
Source: *Canadian Community Health Survey, 2008.*

- Close to 60% of Canadians aged 12 or older reported excellent or very good health in 2008.

- In most age groups, the percentages of males and females rating their health as very good or excellent were similar. The only exceptions were at ages 18 to 24, among whom males were slightly more likely than females to report excellent or very good health (68.6% versus 64.1%), and at ages 55 to 64, among whom females were more likely than males to this level of perceived health (53.2% versus 48.8%).

- Not surprisingly, the percentage of people reporting their health as very good or excellent declined with age, likely because the prevalence of chronic conditions and functional limitations tends to increase with advancing age and affects health perceptions.

Province

Age-standardized percentage reporting excellent or very good health, household population aged 12 or older, Canada, provinces and territories, 2008

* significantly different from estimate for rest of Canada (p<0.05)
Note: *Age-standardized to Canada population 1991, direct method.*
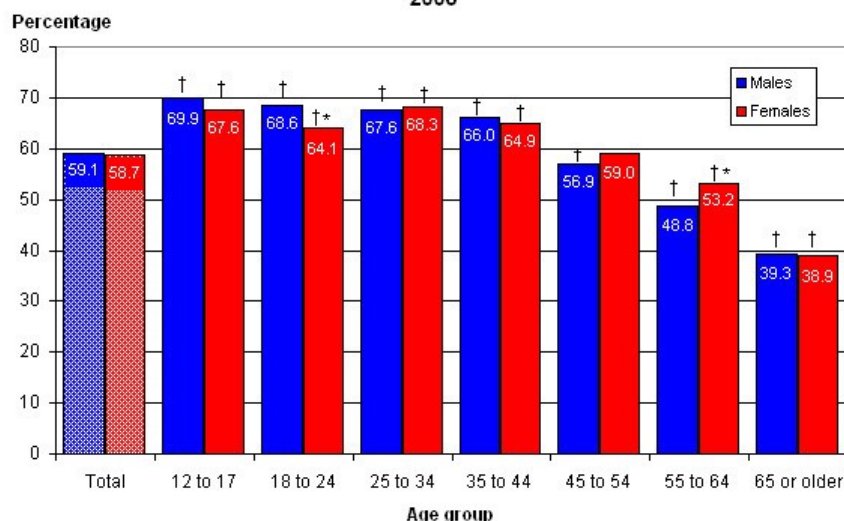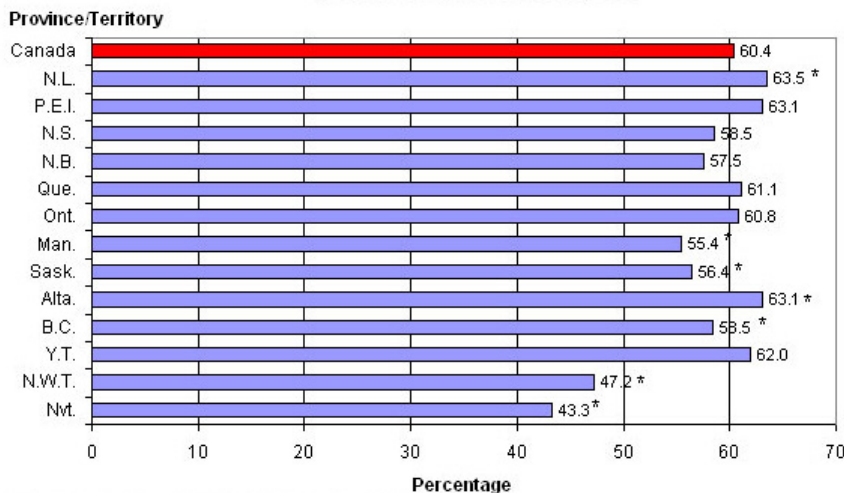**Source:** *Canadian Community Health Survey, 2008.*

- Manitoba, Saskatchewan, British Columbia, Northwest Territories and Nunavut reported lower percentages of very good or excellent perceived health than did Canadians overall, even when the different age structures in the provinces and territories was taken into account.

- Residents of Newfoundland and Labrador and Alberta were significantly more likely to report very good or excellent perceived health than were Canadians overall.

Note: Age–standardized, direct method to 1991 Canada population.

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Perceived mental health

Respondents were asked to rate their mental health as poor, fair, good, very good or excellent.

Perceived mental health is a general indication of the number of people in the population suffering from some form of mental disorder, mental or emotional problems or distress, not necessarily reflected in self-perceived health.

Importance of Indicator

The World Health Organization defines mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community"[1].

Perceived mental health is a subjective measure of overall mental health status.

Although perceived mental health does not directly correspond with measured (or diagnosed) mental disorders[2,3], perceptions are important in their own right and may affect service use.

Background

Recent research has demonstrated associations between perceived mental health and social class[4] , family support and family cultural conflict[5] , community belonging[6], service use[7,8,9,10,11] , continuation of antidepressant therapy[12] and activity restriction and social role functioning[3].

Persistent socio-economic disadvantages such as low levels of education and income and poor housing are recognized risks to mental health[1].

Highlights and graphs

Time trend

Age-standardized percentage reporting excellent or very good mental health, by sex, household population aged 12 or older, Canada, 2003, 2005, 2007, and 2008
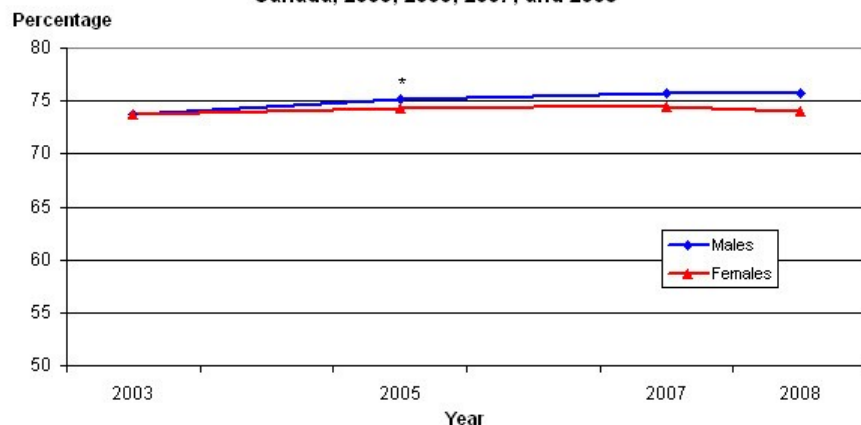
* significantly different from estimate for previous time period (p<0.05)
Note: Age-standardized to Canada population 1991, direct method.
Source: Canadian Community Health Survey, 2003, 2005, 2007, and 2008.

- From 2003 to 2008, the age-standardized percentage of Canadians reporting their mental health as very good or excellent was consistently high.

- In 2003, the difference between the percentages of males and females reporting very good or excellent perceived mental health was not significant. By 2007 and 2008, males were significantly more likely than females to report very good or excellent mental health.

Note: Age–standardized, direct method to 1991 Canada population.

Age group and sex

Percentage reporting excellent or very good mental health, by age group and sex, household population aged 12 or older, Canada, 2008
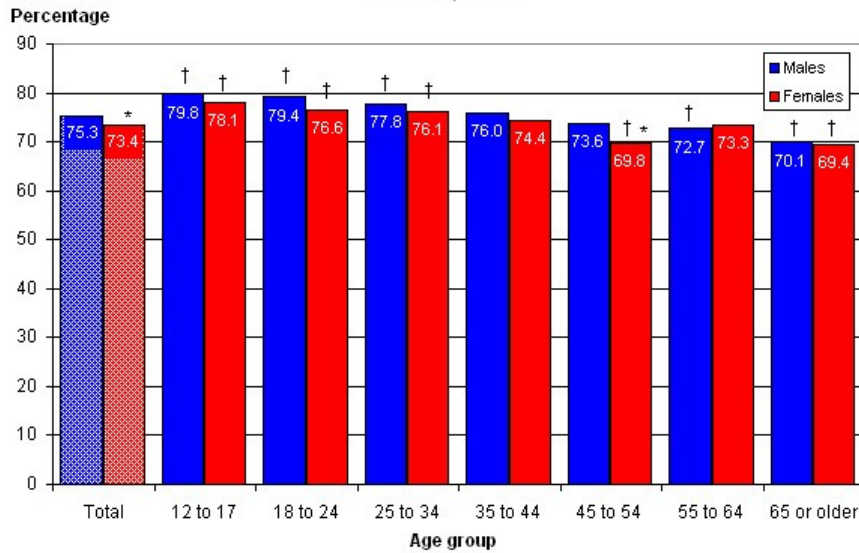
Percentage

* significantly different from estimate for males (p<0.05)
† significantly different from overall estimate for same sex (p<0.05)
Source: Canadian Community Health Survey, 2008.

- Around three-quarters of males and females aged 12 or older perceived their mental health as very good or excellent in 2008.

- At ages 45 to 54, males were more likely than females to report very good or excellent mental health (73.6% vs. 69.8%). At all other ages, estimates for males and females did not differ.

- Younger Canadians—those aged 12 to 34—were more likely than Canadians overall to report excellent or very good perceived mental health; seniors were less likely to do so.

Province

Age-standardized percentage reporting excellent or very good mental health, household population aged 12 or older, Canada, provinces and territories, 2008

Province/Territory

Percentage

* significantly different than estimate for Canada
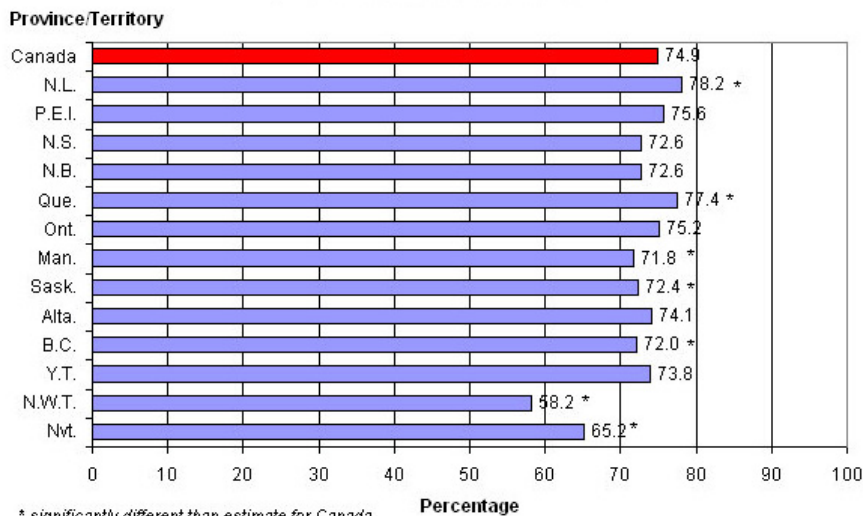**Note:** Age-standardized to Canada population 1991, direct method.
Source: Canadian Community Health Survey, 2008.

- In 2008, lower age-standardized percentages of people in Manitoba, Saskatchewan, British Columbia, Northwest Territories and Nunavut reported very good or excellent mental health, compared with Canadians overall.

- Residents of Newfoundland and Labrador and Quebec were more likely than Canadians overall to report excellent or very good mental health.

Note: Age–standardized, direct method to 1991 Canada population.

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Perceived life stress

The degree of stress was measured by the percentage of the population aged 15 or older who reported most days to be "quite a bit stressfull" or "extremely stressful" versus "not at all stressful

Importance of indicator

Stress is a common aspect of life and can have negative consequences for health. These consequences include direct impacts on mental health and the onset and progression of physical illness[1,2]. In addition, stress may also influence health indirectly through health behaviours such as smoking, drug use, and excessive eating and alcohol related behaviours[3].

Background

Canadians who were physically active in their leisure time reported lower levels of stress[4].

Seniors who perceived low levels of stress were about twice as likely to be in good health as were those with high stress levels[5].

Working women were more likely than working men to report high levels of perceived life stress[6].

Highlights and graphs
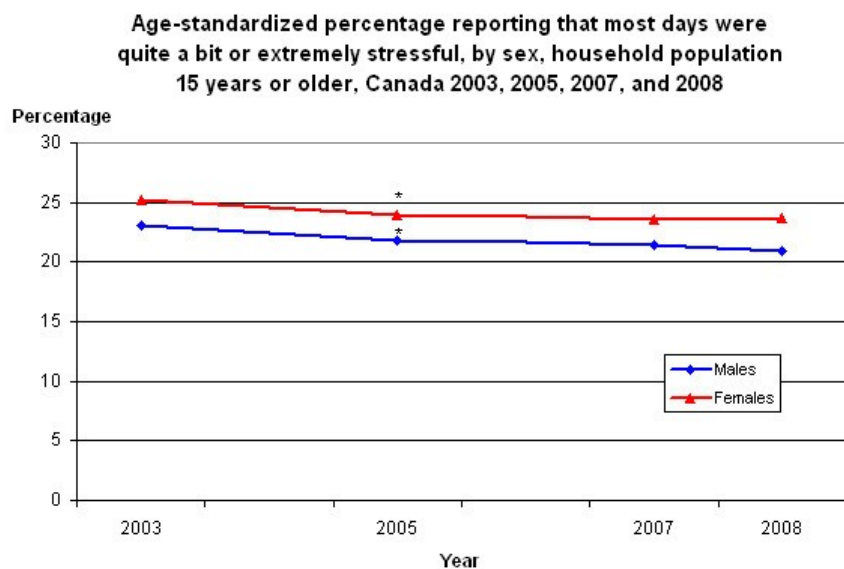
Time trend

Age-standardized percentage reporting that most days were quite a bit or extremely stressful, by sex, household population 15 years or older, Canada 2003, 2005, 2007, and 2008

* significantly different from estimate for previous time period (p<0.05)
Note: Age-standardized to Canada population 1991, direct method.
Source: Canadian Community Health Survey, 2003, 2005, 2007, and 2008.

- The age-standardized percentage of Canadians who reported that most days were quite a bit or extremely stressful remained relatively stable between 2003 and 2008.

- Females were consistently more likely than males to report that most days were quite a bit or extremely stressful.

Note: Age–standardized, direct method to 1991 Canada population.

Age group and sex

Percentage reporting that most days were quite a bit or extremely stressful, by age group and sex, household population aged 15 or older, Canada, 2008

* significantly different from estimate for males, p<0.05
† significantly different from overall estimate for same sex (p<0.05)
Source: Canadian Community Health Survey, 2008.

- In 2008, 21.2% of males (2.8 million) and 23.4% of females (3.2 million) aged 15 or older reported that most days were quite a bit or extremely stressful.

- Males and females aged 35 to 54 and men aged 25 to 34 years were more likely than Canadians overall to report high levels of stress. These are the ages at which people are most likely to be managing the multiple roles associated with career and family responsibilities.

- Both male and female seniors were less likely to report daily stress than were Canadians overall.

- Overall, females were more likely then males to report that most days were quite a bit or extremely stressful, particularly at ages 15 to 24 and 35 to 44.

- Although relatively few people aged 15 to 24 reported high levels of stress, the difference between the sexes was greatest in this age range; females were 1.5 times more likely than males to report that most days were quite a bit or extremely stressful.

Province

Age-standardized percentage reporting that most days were quite a bit or extremely stressful, by age group and sex, population 15 years or older, Canada, provinces and territories, 2008

* significantly different from estimate for Canada (p<0.05)
Note: Age-standardized to Canada population 1991, direct method.
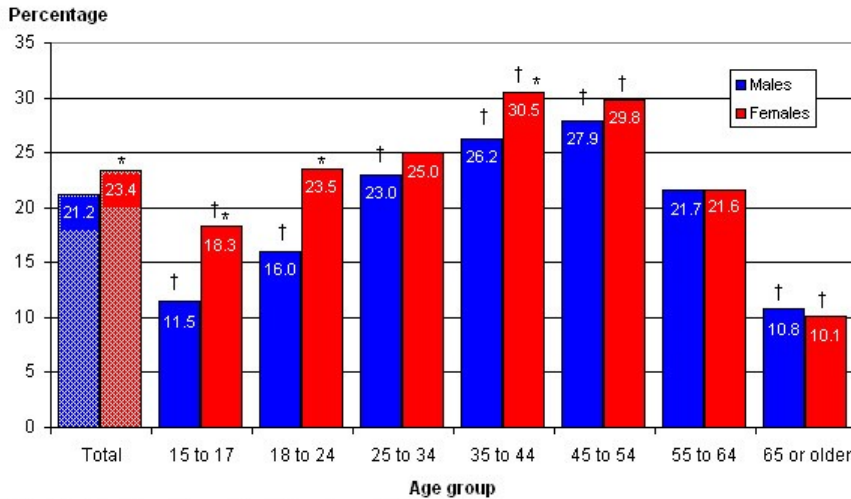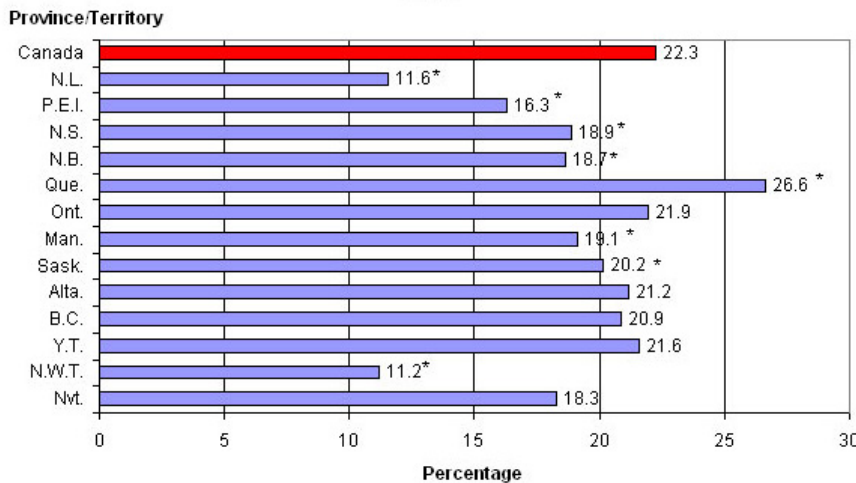*Source:* Canadian Community Health Survey, 2008.

- Residents of the Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan and Northwest Territories were significantly less likely than Canadians overall to report that most days were quite a bit or extremely stressful.

- Only Quebec residents reported higher levels of stress than did Canadians overall.

Note: Age–standardized, direct method to 1991 Canada population.

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Adult body mass index (BMI)

Body mass index (BMI) is a method of classifying body weight according to health risk. It is calculated for the population aged 18 or older, excluding pregnant women and people shorter than 3 feet (0.914 metres) or taller than 6 feet 11 inches (2.108 metres). BMI (Body mass index) is calculated as weight in kilograms divided by height in metres squared.

This report presents BMI (Body mass index) based on measured height and weight data, which most accurately reflect the true values. However, because of the higher cost, these data are collected less frequently than self-reported data.

BMI based on self-reported height and weight is also available in Health Indicators. These respondent-reported data tend to underestimate weight and overestimate height, both of which influence the calculation of BMI (Body mass index) and associations with morbidity[1,2]. Misreporting can vary by method of data collection, for example, telephone versus personal interview.

According to World Health Organisation (WHO) and Health Canada guidelines, health risk levels are associated with each of the following BMI (Body mass index) categories; normal weight = least health risk; underweight and overweight = increased health risk; obese class I = high health risk; obese class II = very high health risk; obese class III = extremely high health risk.

Category	BMI	Risk to health
Underweight	less than 18.5	Increased health risk
Normal weight	18.5 to 24.9	Least health risk
Overweight	25.0 to 29.9	Increased health risk
Obese class I	30.0 to 34.9	High health risk
Obese class II	35.0 to 39.9	Very high health risk
Obese class III	40.0 or more	Extremely high health risk

Canadian Guidelines for Body Weight Classification in Adults

Importance of indicator

The percentage of Canadians who are overweight or obese has been increasing in recent years[3]. The health consequences of excess weight include increased risk of physical chronic conditions and psychosocial problems[4]. Given that excess weight is a risk factor for other conditions, monitoring trends in overweight and obesity is important in order to prepare for potential changes in the health status of the population and to anticipate demands for health services.

Background

Overweight and obesity are associated with health risks. Excess weight is a risk factor for type 2 diabetes, cardiovascular disease, high blood pressure, obstructive sleep apnea, osteoarthritis, some cancers, and gallbladder disease[5].

However, the degree to which a moderately elevated BMI (Body mass index) (overweight as opposed to obese) is associated with health risk is unclear. Studies have produced conflicting results[6,7,8,9].

Obese individuals have an increased risk of dying. People who are underweight are also at increased risk of death, although this is thought to be mainly because of underlying disease processes that produce weight loss[9].

Highlights and graphs

BMI category by sex

Percentage distribution by body mass index (BMI) category, by sex, household population aged 18 or older, Canada excluding territories, 2004, 2005 and 2008
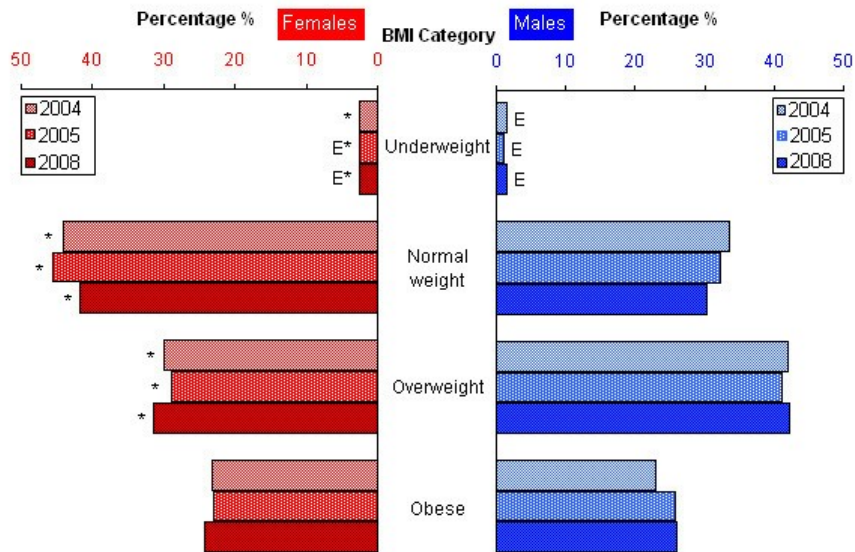
*significantly different than estimate for males (p<0.05)
E interpret with caution (coefficient of variation between 16.6% to 33.3%)
Note: BMI based on measured height and weight; excludes pregnant women.
Source: Canadian Community Health Survey, 2004, 2005 (subsample 2) and 2008 (subsample 2).

- In recent years, approximately 42% of men and 30% of women aged 18 or older were estimated to be overweight, and a further 26% of men and 24% of women, obese.

- Women were more likely than men to be underweight or normal weight, while men were more likely to be classified as overweight.

- Men and women were equally likely to be obese.

Note: BMI (Body Mass Index) was calculated based on measured height and weight and excludes pregnant women BMI (Body Mass Index) is calculated as follows: weight in kilograms divided by height in metres squared.

Overweight or obese by age group and sex

Percentage overweight or obese (body mass index 25 kg/m² or more), by age group and sex, household population aged 18 or older, Canada excluding territories, 2004, 2005 and 2008

* significantly different than estimate for males (p<0.05)
† significantly different than estimate for 2005 (p<0.05)
‡ significantly different than estimate for 2008 (p<0.05)
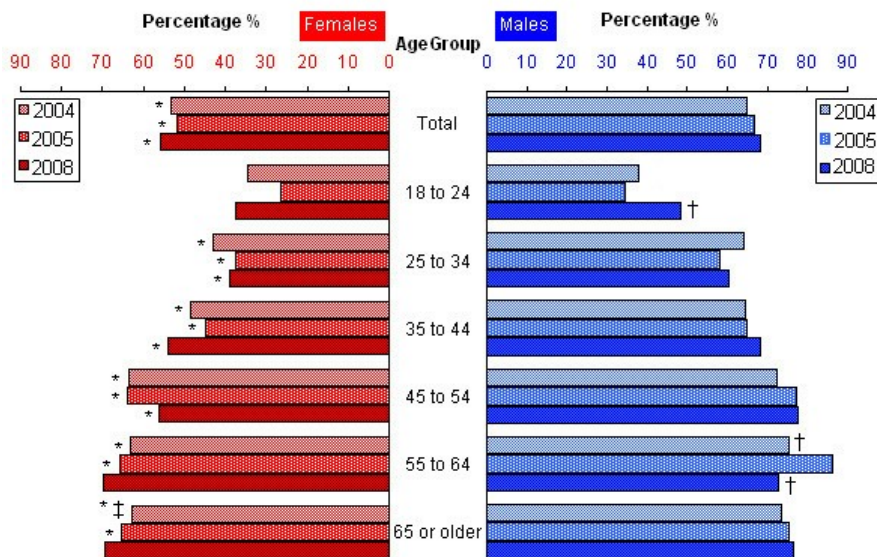**Note:** BMI based on measured height and weight; excludes pregnant women.
Source: Canadian Community Health Survey, 2004, 2005 (subsample 2) and 2008 (subsample 2).

- In recent years, more than half of Canadian women aged 18 or older were overweight or obese, compared with two-thirds of men: an estimated 7.1 million women and 8.6 million men in 2008.

- Among both sexes, overweight/obesity was less prevalent at younger ages. Nevertheless, half of men (49%) and more than a third of women (38%) aged 18 to 24 years were overweight or obese in 2008.

- Men were more likely than women to be classified as overweight or obese overall, and in every age group from age 25 and older. At ages 18 to 24, men were no more likely than women to be overweight or obese.

- From 2005 to 2008, the percentage of men aged 18 to 24 who were overweight or obese increased significantly from 35% to 49%.

- The proportion of senior women classified as overweight or obese increased from 63% in 2004 to 70% in 2008. The percentage of senior men in this category also rose over the same periods, but the change was not statistically significant.

Note: BMI (Body Mass Index) calculated based on measured height and weight and excludes pregnant women BMI (Body Mass Index) is calculated as follows: weight in kilograms divided by height in metres squared.

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Tremblay MS, Pérez CE, Ardern CI, et al. Obesity, overweight and ethnicity. Health Reports (Statistics Canada, Catalogue 82-003) 2005; 16(4): 23-34.

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Participation and activity limitation

This variable measures of the impact of long-term health conditions on the principal domains of life: home, work, school, and other activities.

It identifies respondents who experienced activity limitations imposed by a condition(s) or by long-term physical and/or mental health problem that has lasted or is expected to last 6 months or more. Those who reported such limitations "some of the time" or "all of the time" versus "never" were considered to have a participation and activity limitation.

This variable is not specific to a single health condition nor does it identify whether multiple conditions are present.
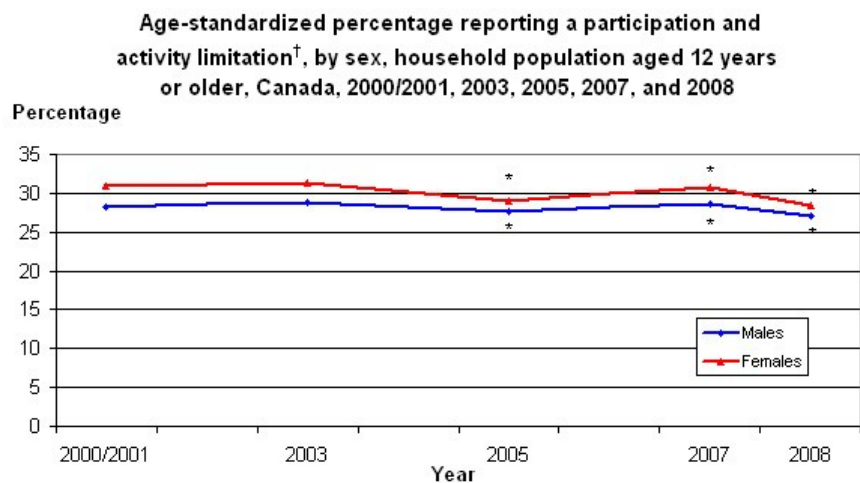
Importance of indicator

While it is imperative to measure the prevalence of specific health conditions, it is also important to understand the burden these conditions place on the daily lives of Canadians. The participation and activity limitation indicator helps to monitor this burden in the population.

Background

- The ability to carry out daily activities without limitation is a determinant of perceived health. Changes in functional status can predict changes in health perceptions[1].

- Functional status is associated with mortality. Seniors who reported an activity limitation had increased odds of dying over the next four years[2].

- Canadians with arthritis were more likely to report participation and activity limitations than were people with other chronic conditions or those with no chronic conditions[3].

- People with current or previous social anxiety disorder were more likely than those with no history of the disorder to report an activity limitation, even when potentially confounding effects of socio-economic characteristics (sex, age, marital status, education and income) were taken into account[4].

- Activity limitations were more prevalent among people aged 45 to 64 with relatively little education or income[5].

Highlights and graphs

Time trend

Age-standardized percentage reporting a participation and activity limitation[†], by sex, household population aged 12 years or older, Canada, 2000/2001, 2003, 2005, 2007, and 2008

[*] significantly different from estimate for previous time period (p<0.05)
[†] respondents who reported being limited in home, school, work or other activities (sometimes or often versus never) because of a physical condition, mental condition, or health problem which has lasted or is expected to last six months or longer
Note: Age-standardized to Canada population 1991, direct method.
Source: Canadian Community Health Survey, 2000/2001, 2003, 2005, 2007, and 2008.

- The age-standardized percentage of Canadians age 12 or older who reported participation and activity limitations remained fairly stable between 2000/2001 and 2008.

- Females were consistently more likely than males to report participation and activity limitations.

Note: Age–standardized, direct method to 1991 Canada population.

Age group and sex

Percentage reporting a participation or activity limitation‡, by age group and sex, household population aged 12 years or older, Canada, 2008
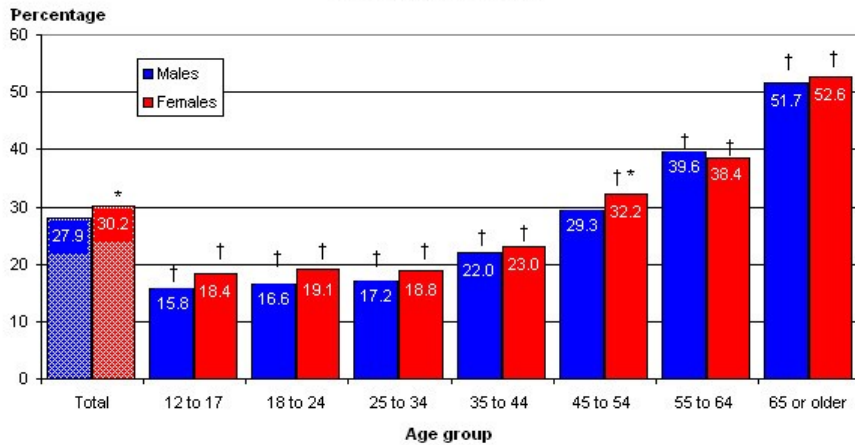
* significantly different from estimate for males (p<0.05)
† significantly different from overall estimate for same sex (p<0.05)
‡respondents who reported being limited in home, school, work or other activities (sometimes or often versus never) because of a physical condition, mental condition, or health problem which has lasted or is expected to last six months or longer
Source: Canadian Community Health Survey, 2008.

- In 2008, nearly 1 in 3 Canadians aged 12 or older (an estimated 3.9 million males and 4.3 million females) reported a long-term activity limitation due to a physical or mental health problem.

- The prevalence of participation and activity limitations rose with advancing age. Seniors were about three times more likely to report participation and activity limitations than were people aged 12 to 24.

- With the demographic shift to an older population in Canada, the number of seniors affected by these limitations will likely grow, even if proportion of seniors affected remains the same.

- Overall and at ages 45 to 54, females were slightly more likely than males to experience activity limitations. Among the other age groups, similar percentages of males and females reported activity limitations.

Province

Age-standardized percentage reporting a participation or activity limitation†, household population aged 12 years or older, Canada, provinces and territories, 2008

* significantly different from estimate for Canada (p<0.05)
†respondents who reported being limited in home, school, work or other activities (sometimes or often versus never) because of a physical condition, mental condition, or health problem which has lasted or is expected to last six months or longer
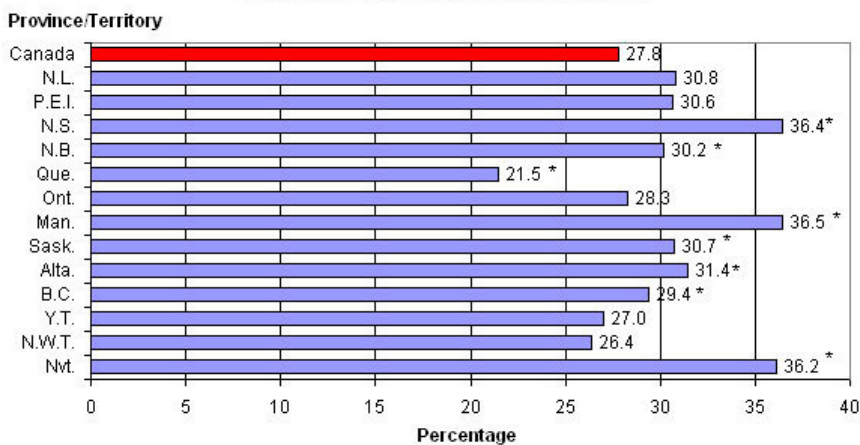**Note:** Age-standardized to Canada population 1991, direct method.
Source: Canadian Community Health Survey, 2008.

- Residents of Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta, British Columbia and Nunavut were more likely to report participation and activity limitations than were Canadians overall.

- Quebec was the only province where residents were less likely than Canadians overall to report participation and activity limitations. Quebec residents were also less likely to report <u>pain</u> and <u>arthritis</u> than Canadians overall, which may contribute to their lower prevalence of activity limitation.

- Because the prevalence of activity limitations increases with advancing age, it is influenced by the age structure in a given province or territory. When age was not taken into account, residents of Newfoundland and Labrador and Prince Edward Island were more likely than Canadians overall to report participation and activity limitations. These differences were no longer significant when adjusting for age.

- Similarly, residents of Northwest Territories were less likely to report such limitations before age was accounted for, but not when age was controlled.

Note: Age–standardized, direct method to 1991 Canada population.

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Statistics Canada. Participation and Activity Limitation Survey 2006: Analytical Report (Catalogue <u>89-628</u> no. 002) Ottawa: 2007.

Pain or discomfort that prevents activities

The presence of pain was measured as the population aged 12 or older who reported having pain or discomfort that prevents a few, some or most activities versus none.

Importance of indicator

The importance of pain as a public health issue lies in its high prevalence and impact. More than providing an estimate of how many people are experiencing pain, this indicator captures the percentage of the population who some degree of functional limitation associated with that pain.

Background

Studies of chronic pain in Canada have found that it is a commonly reported condition. Among people living in private households, 16% of those aged 18 to 64 and 27% of seniors reported chronic pain. The prevalence rose to 38% for seniors living in long-term health care institutions[1].

Women are more likely to report chronic pain than men, older people more than younger people[2,3,4].

Individuals with low educational attainment are more likely to report chronic pain than those with higher levels of education[4].

Chronic pain is associated with dependency in activities of daily living (for example personal care, moving around the home) and instrumental activities of daily living (for example errands, housework)[5].

The more severe the pain, the more likely it is to interfere with a person's daily activities. And the presence or absence of chronic pain is associated with people's happiness and perceived health[4,6,7].

People reporting chronic pain are more likely to use medications and be multiple medication users[1].

Highlights and graphs

Time trend

Age-standardized percentage reporting pain or discomfort that prevents activities, by sex, household population aged 12 or older, Canada, 2000/2001, 2003, 2005, 2007 and 2008
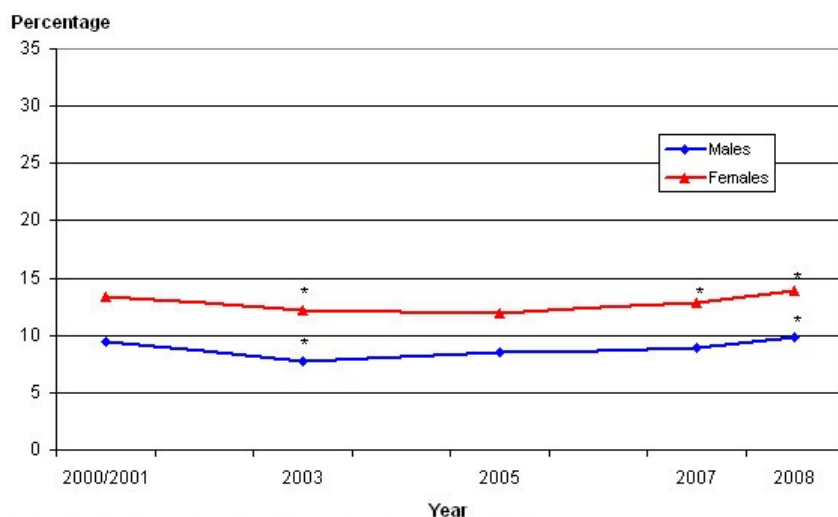
* significantly different from estimate for previous time period (p<0.05)
Note: Age-standardized to Canada population 1991, direct method.
Source: Canadian Community Health Survey, 2000/2001, 2003, 2005, 2007 and 2008.

- From 2000/2001 to 2008, the age-standardized percentage of Canadians reporting pain or discomfort that prevented activities remained relatively stable.

- Year-to-year fluctuations were relatively small; the age-standardized percentage dipped slightly in 2003, but increased again by 2008.

- Females were consistently more likely than males to report pain or discomfort that prevents activities.

Note: Age–standardized, direct method to 1991 Canada population.

Age group and sex

Percentage reporting pain or discomfort that prevents activities, by age group and sex, household population aged 12 or older, Canada, 2008

* significantly different from estimate for males (p<0.05)
† significantly different from overall estimate for same sex (p<0.05)
Source: Canadian Community Health Survey, 2008.

- In 2008, an estimated 10% of males (1.4 million) and 15% of females (more than 2 million) aged 12 or older reported pain or discomfort that prevents activities.

- Parallelling the increasing prevalence of chronic conditions and activity limitations with advancing age, the percentage of Canadians reporting pain and discomfort that prevent activities rose with age—by age 65 or older, this was the case for 17% of males and 24% of females.

- In all age groups, females were more likely than males to report pain and discomfort that prevents activities.

Province

Age-standardized percentage reporting pain or discomfort that prevents activities, household population aged 12 or older, Canada, provinces and territories, 2008
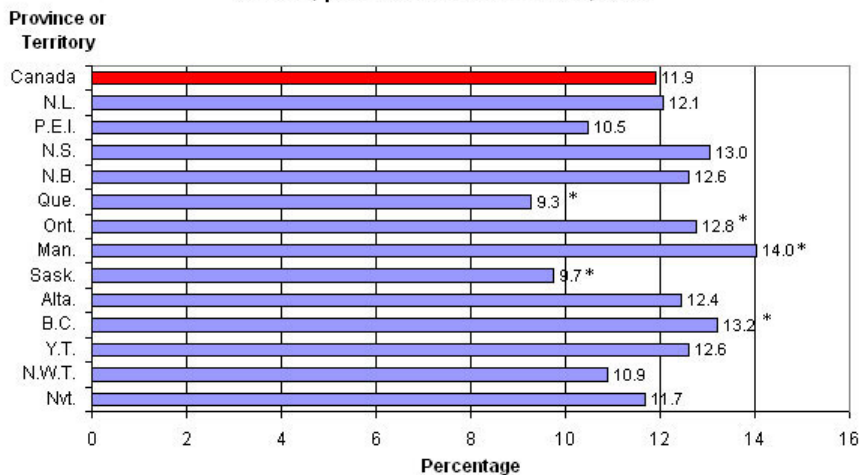
* significantly different from estimate for Canada (p<0.05)
Note: Age-standardized to Canada population 1991, direct method .
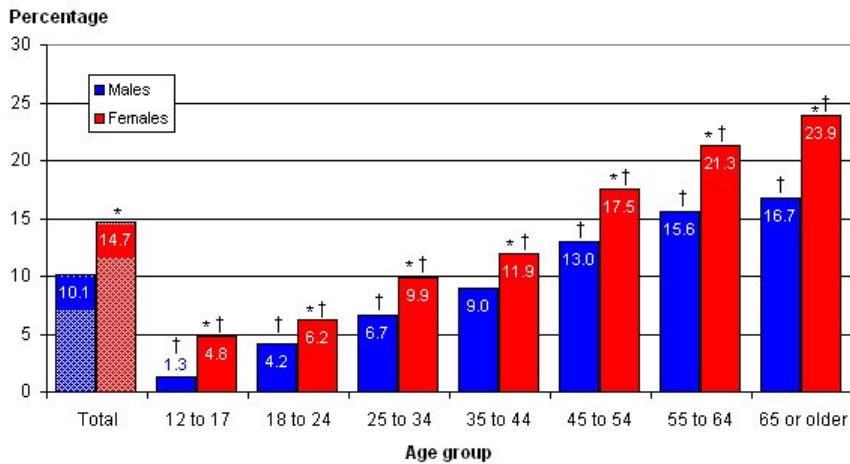*Source:* Canadian Community Health Survey, 2008.

- Residents of Quebec and Saskatchewan were less likely to report pain and discomfort that prevents activities, compared with Canadians overall. In Ontario, Manitoba and British Columbia, prevalence was higher than the national figure.

- In Nova Scotia, the crude estimate of pain and discomfort that prevents activities exceeded that for Canada overall. However, the estimate lost statistical significance when the age structure of the province was taken into account.

- For Nunavut, the estimate was lower than for Canada until the age structure of the territory was taken into account. This indicates that Nunavut's lower prevalence of pain and discomfort that prevent activities is influenced by the high percentage of

young people, who are less likely than older people to experience pain and discomfort.

Note: Age–standardized, direct method to 1991 Canada population.

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Diabetes

The presence of diabetes is based on the population aged 12 or older who reported that a health professional diagnosed them as having diabetes. This includes females 15 or older who reported that they have been diagnosed with gestational diabetes. The definition does not distinguish between type 1 and type 2 diabetes

Importance of indicator

Diabetes is an important indicator of population health because of its increasing prevalence, association with lifestyle risk factors, and far-reaching consequences. Common complications include heart disease and stroke, vision problems or blindness, kidney failure, and nerve damage[1].

Background

The prevalence of type 2 diabetes is increasing worldwide[2]. Formerly considered a disease of adults and the elderly, it is now appearing in children[3,4]. The burdens imposed by diabetes include shortened life expectancy and fewer years lived in good health, as well as health care costs for those afflicted.

The aging population is the most important demographic change affecting diabetes prevalence worldwide. Even if incidence rates were to remain stable, because of the growing number of seniors, the overall prevalence of diabetes would increase[2,5].

Being overweight or obese is an important risk factor for diabetes[6]. Rising percentages of Canadians in these categories[7] could increase the prevalence of diabetes.

Physical activity reduces the risk of developing diabetes and inhibits the progression of the disease by increasing sensitivity to insulin. Even when body mass index (BMI) and other factors were taken into account, diabetes incidence was higher among inactive people[5].

Family history (parent or sibling with diabetes) was associated with an increased risk of developing diabetes[5]. While this may indicate a genetic predisposition, shared behaviours and increased awareness that leads to testing might also be factors associated with the family history.

Some association between socio-economic status and diabetes was evident in a Canadian study, which found that those with less than secondary graduation were more likely to report a diagnosis of diabetes. However, when sex, family history and lifestyle factors were controlled, education was no longer associated with developing diabetes[5].

Highlights and graphs

Time trend

Age-standardized percentage reporting a diagnosis of diabetes, by sex, population aged 12 or older, Canada, 2000/2001, 2003, 2005, 2007 and 2008
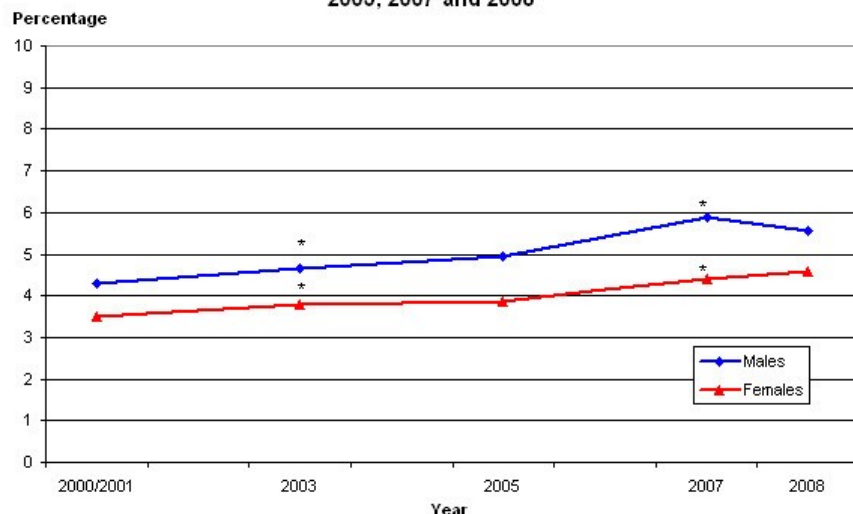
* significantly different from estimate for previous time period (p<0.05)
Note: Age-standardized to Canada population 1991, direct method.
Source: Canadian Community Health Survey, 2000/2001, 2003, 2005, 2007 and 2008.

- As in other countries[2] self-reported diabetes increased among both males and females in Canada between 2000/2001 and 2008, even when the aging population was taken into account.

- A combination of demographic, lifestyle and clinical factors may account for this increase[5]:

- a decline in diabetes mortality;

- increased prevalence of overweight and obesity, an important risk factor;

- broader diagnostic criteria that affect the number of cases identified;

- and growing awareness among physicians and the public that could lead to increased detection.

- Males were consistently more likely than females to report a diagnosis of diabetes.

Note: Age–standardized, direct method to 1991 Canada population.

Age group and sex

Percentage reporting a diagnosis of diabetes, by age group and sex, household population aged 12 or older, Canada, 2008

Percentage

Age group	Males	Females
Total	6.3	5.4 *
12 to 24	0.4 E †	0.4 E †
25 to 34	0.6 E †	1.4 E †*
35 to 44	2.9 †	2.5 †
45 to 54	6.1	4.8
55 to 64	14.5 †	10.7 * †
65 or older	18.0 †	14.4 * †

* significantly different from estimate for males (p<0.05)
† significantly different from overall estimate for same sex (p<0.05)
E interpret with caution (coefficient of variation between 16.6% to 33.3%)
Source: Canadian Community Health Survey, 2008.

- In 2008, 6.3% of males (900,000) and 5.4% of females (800,000) aged 12 or older reported a diagnosis of diabetes. The actual number of people with diabetes is likely to be even higher[8] because many people with diabetes may not be aware of it.

- Diabetes becomes more prevalent with advancing age—1 in 6 senior males and 1 in 7 senior females reported a diagnosis of diabetes, compared with fewer than 1 in 200 people aged 12 to 24.

- Overall, males were more likely than females to be diagnosed with diabetes, particularly at ages 55 or older. Females in the 25 to 34 year old age group were more likely than males to report such a diagnosis.

Province

Age-standardized percentage reporting a diagnosis of diabetes, household population aged 12 or older, Canada, provinces and territories, 2008

Province/Territory

Province/Territory	Percentage
Canada	5.0
N.L.	7.5*
P.E.I.	6.1
N.S.	5.6
N.B.	6.3*
Que.	4.9
Ont.	5.3
Man.	4.3
Sask.	5.5
Alta.	4.6
B.C.	4.2*
Y.T.	2.5*
N.W.T.	4.1
Nvt.	F

Percentage
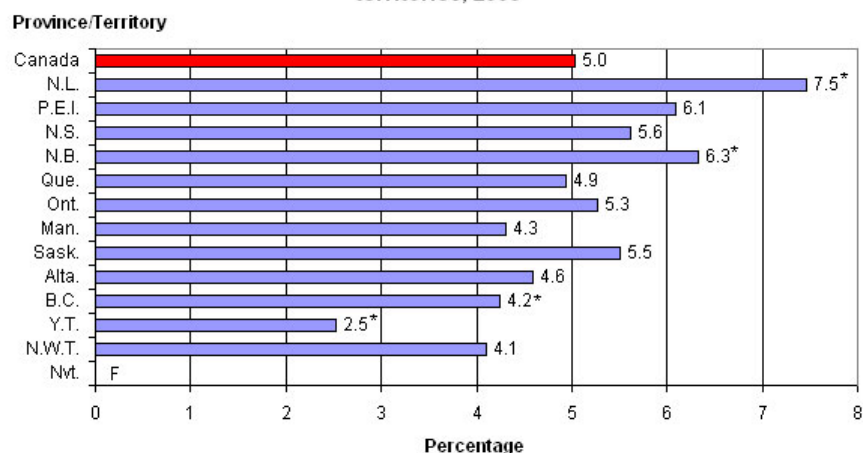
* significantly different from estimate for rest of Canada (p<0.05)
F data supressed (coefficient of variation greater than 33.3%)
Note: Age-standardized to Canada population 1991, direct method.
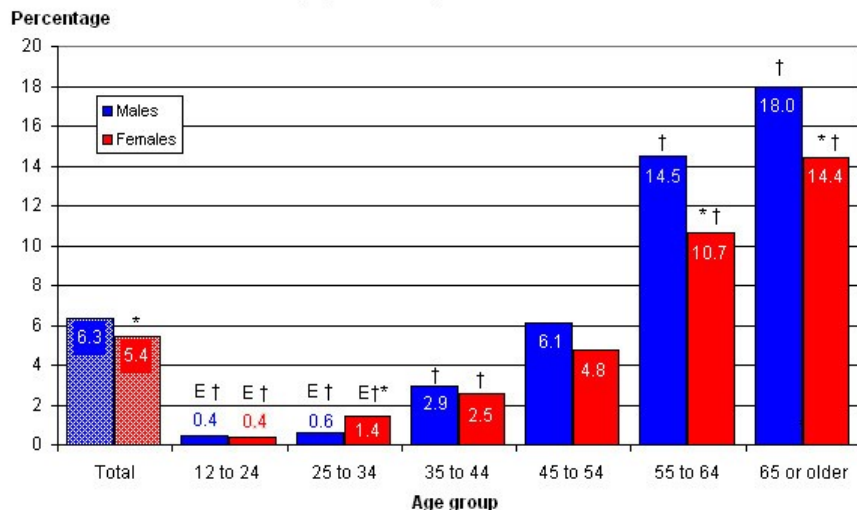**Source:** Canadian Community Health Survey, 2008.

- The age-standardized prevalence of diabetes varied somewhat across Canada. Residents of Newfoundland and Labrador and New Brunswick were more likely than Canadians overall to report a diagnosis of diabetes.

- Residents of British Columbia and Yukon were less likely to report such a diagnosis.

- These percentages were significantly different from the national percentage, even when accounting for the differing age structures in these provinces and territories.

Note: Age–standardized, direct method to 1991 Canada population.

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Arthritis

The presence of arthritis was measured as the population aged 12 or older who reported that a health professional had diagnosed them as having arthritis. Prior to 2007 respondents were asked "Do you have arthritis or rheumatism, excluding fibromyalgia?" In 2007, the word "rheumatism" was removed from the question.

Importance of indicator

Arthritis is an important indicator of population health because it is a highly prevalent chronic condition that affects the daily life of many Canadians and places demands on the health care system.

Background

Arthritis is a highly prevalent chronic condition that increases with age. This has implications for Canada's aging population[1].

Arthritis is associated with mobility limitations and dependency in activities of daily living[1].

Canadians who reported arthritis were more likely to use medications and be multiple medication users[2].

Studies have found an association between arthritis and hormone replacement therapy (HRT). Long-term HRT (hormone replacement therapy) increases the risk of arthritis in middle-aged and older women[3].

Arthritis has also been associated with falls and fractures[4,5].

Men and women who were obese had higher odds of developing arthritis than did those who reported acceptable weight[6].

Arthritis and/or rheumatism was the most commonly reported chronic condition among Métis adults; at 21% it was more prevalent among this population than for Canadians as a whole (13%)[7].

Highlights and graphs

Time trend

Age-standardized percentage reporting a diagnosis of arthritis, by sex, household population aged 12 or older, Canada, 2000/2001, 2003, 2005, 2007 and 2008
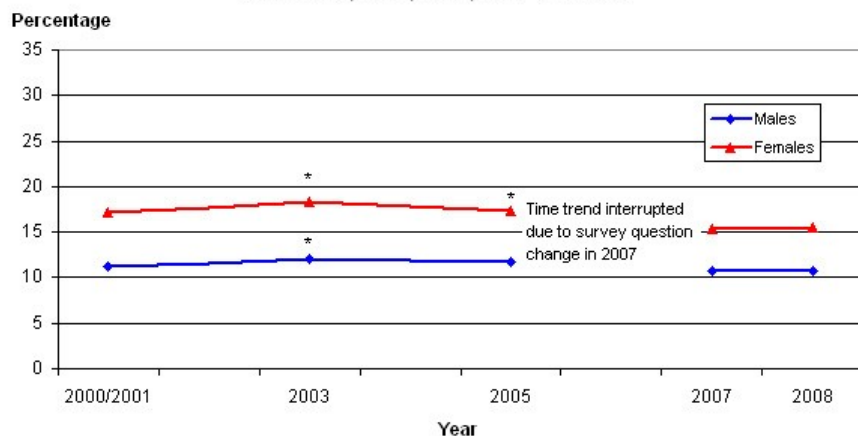
significantly different from estimate for previous time period (p<0.05)
Notes: *Age–standardized to Canada population 1991, direct method. Prior to 2007 respondents were asked "Do you have arthritis or rheumatism, excluding fibromyalgia?" In 2007 the word "rheumatism" was removed from the question. Percentages were not tested for significant differences between 2005 and 2007.*
Source : *Canadian Community Health Survey, 2000/2001, 2003, 2005, 2007 and 2008.*

- The age-standardized prevalence of arthritis in Canada remained relatively stable from 2000/2001 through 2008.

- Females were consistently more likely than males to report a diagnosis of arthritis.

Note: Age–standardized to 1991 Canada population, direct method. Prior to 2008 respondents were asked "Do you have arthritis or rheumatism, excluding fibromyalgia?" In 2008, the word "rheumatism" was removed from the question.

Age group and sex

Percentage reporting a diagnosis of arthritis, by age group and sex, household population aged 12 or older, Canada, 2008
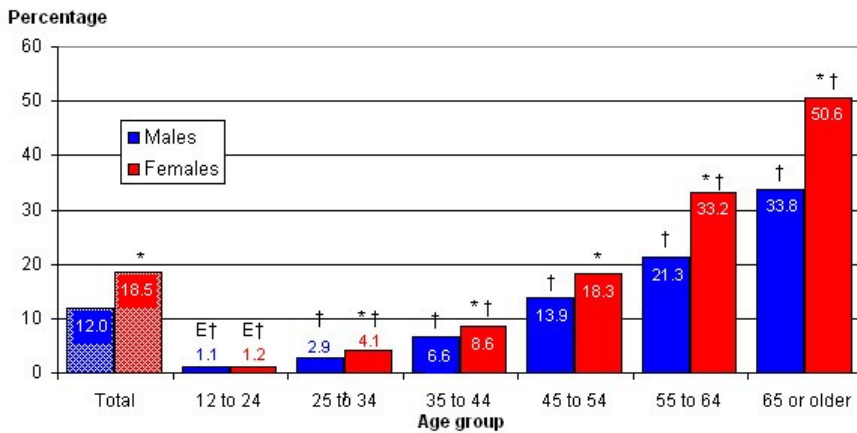
Percentage

* significantly different from estimate for males (p<0.05)
† significantly different from overall estimate for same sex (p<0.05)
E interpret with caution (coefficient of variation between 16.6% to 33.3%)
Source: Canadian Community Health Survey, 2008.

- In 2008 15.3% of Canadians aged 12 or older reported a diagnosis of arthritis (4.3 million): 12.0% of males (1.7 million) and 18.5% of females (2.6 million).

- In every age group except the youngest (12 to 24), females were more likely than males to have arthritis. The differences were large at older ages: among people aged 65 or older, females were 50% more likely than males to report a diagnosis of arthritis.

- Arthritis is relatively uncommon at ages 12 to 24—just over 1 in 100 people reported a diagnosis of arthritis in 2008 (1. 1% of males and 1.2% of females).

- As in other countries[8], arthritis in Canada becomes increasingly prevalent with advancing age; approximately one in three (33.8%) senior males and one in two (50.6%) senior females reported arthritis in 2008.

- Although arthritis is associated with aging, a substantial number of Canadians in their prime working years report this condition. At ages 45 to 64, for example, 17.2% of males and 24.8% of females, representing more than 1.9 million people, reported a diagnosis of arthritis in 2008.

Province

Age-standardized percentage reporting a diagnosis of arthritis, household population aged 12 years or older, Canada, provinces and territories, 2008
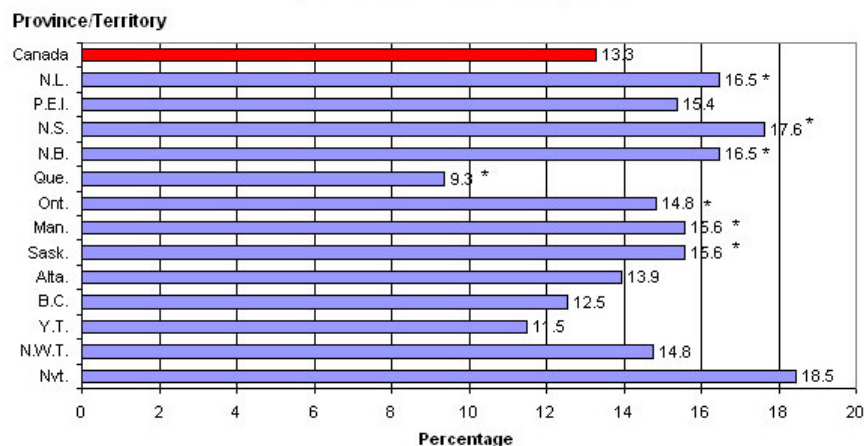
Province/Territory

Province/Territory	Percentage
Canada	13.3
N.L.	16.5 *
P.E.I.	15.4
N.S.	17.6 *
N.B.	16.5 *
Que.	9.3 *
Ont.	14.8 *
Man.	15.6 *
Sask.	15.6 *
Alta.	13.9
B.C.	12.5
Y.T.	11.5
N.W.T.	14.8
Nvt.	18.5

Percentage

* significantly different from estimate for Canada (p<0.05)
Note: *Age–standardized to Canada population 1991, direct method.*
Source: *Canadian Community Health Survey, 2008.*

- The age-standardized prevalence of arthritis varied considerably across the country.

- In 2008, Quebec residents were less likely than Canadians overall to report arthritis.

- The crude estimates of arthritis were significantly lower in Alberta and the territories than in Canada overall, but these differences disappeared once the younger age structures in these areas were taken into account.

- For Prince Edward Island, the crude estimate of arthritis was significantly higher than for Canada overall but once the older age structure in the province was taken into account, there was no significant difference.

- For the remaining Atlantic provinces, Ontario, Manitoba and Saskatchewan, estimates of arthritis were higher than for Canada overall, even when differences in age structure were taken into account.

Note: Age–standardized, direct method to 1991 Canada population.

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Health Behaviours

Health behaviours are influenced by the social, cultural and physical environments in which we live and work. They are shaped by individual choices and external constraints. Positive behaviours help promote health and prevent disease, while the opposite is true for risk behaviours. By monitoring health behaviours over time it is possible to anticipate threats to population health, identify sectors of the population most in need of public health intervention, and evaluate the effectiveness of public health policies.

To capture patterns of behaviour in Canada, four indicators are presented: two health risk behaviours, and two associated with disease prevention. The first looks at smokers, identifying the proportion of the population who smoke either daily or occasionally. Despite the known dangers of tobacco, millions of Canadians continue to smoke. They have a higher risk of developing lung cancer, high blood pressure, heart disease, and other life-threatening conditions.

The second health behaviour indicator is heavy drinking, what is sometimes called "binge drinking." In the short term, excessive drinking can lead to poisoning and death and has been associated with other health risk behaviours such as unprotected sex and driving under the influence, particularly among young people[1,2]. The consequences—unwanted pregnancies, sexually transmitted diseases, motor vehicle collisions—have implications for the health of individuals, their families and the community as a whole. Over the long term, repeated, excessive alcohol consumption may lead to cirrhosis of the liver.

While some behaviours jeopardize health, physical activity and fruit and vegetable consumption promote health and help ward off chronic conditions. The first of these positive health indicators monitors the percentage of Canadians who are either active or moderately active during their leisure time. Exercise helps reduce overweight and obesity and over the life–course, contributes to cardiovascular and musculoskeletal fitness.

The percentage of Canadians who eat fruit and vegetables five or more times daily is another positive indicator of population health. As part of a balanced diet, adequate consumption of fruit and vegetables helps prevent overweight and obesity, diabetes and other chronic conditions.

Several patterns in the selected health behaviours have emerged among Canadians. The first is differences between males and females. Males are more likely than females to smoke and to drink heavily, and less likely to eat enough fruit and vegetables. However, males are more likely to be active during their leisure time.

As would be expected, Canadians of different ages behave differently. Perhaps most striking is the difference in smoking and heavy drinking among 18- to 24-year-olds compared with those aged 12 to 17. Young adults, particularly men, are most likely to engage in health risk behaviours. Seniors, on the other hand, measure up well compared to Canadians overall for fruit and vegetable consumption, and low levels of smoking and heavy drinking.

Over time, the health behaviours of Canadians have changed. The percentage of smokers is declining, while fruit and vegetable consumption appears to be on the rise. Change is less obvious for physical activity and heavy drinking.

Health behaviours are early indicators of population health. Because of the time lag that often occurs between certain behaviours and the development of disease, these indicators may foreshadow the future burdens and benefits of health-risk and health-promoting behaviours. Health behaviours do not occur in isolation—they are influenced and constrained by social and cultural norms. It is important that they be monitored over time to help Canadians reach and maintain optimal levels of health.

Please visit Health Profile for the latest health-related data for your region.

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Current smoking

Smoking prevalence was measured as the percentage of the population aged 12 or older who reported current smoking (daily or occasional). This definition does not take the number of cigarettes smoked into account.

Importance of indicator

Smoking is a risk factor for lung cancer and many other diseases[1]. Monitoring trends in smoking prevalence is important for understanding smoking behaviours over time and for informing policy, service delivery and prevention programs.

Background

As strong evidence about the link between smoking and lung cancer and other diseases accumulated and social acceptability declined, the prevalence of smoking in Canada has dropped in recent decades[2].

Smoking prevalence declined among males and females in all age groups[3].
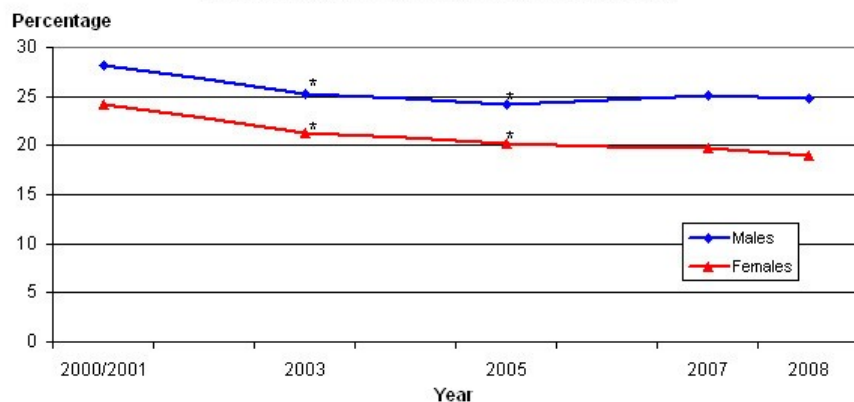
Smoking prevalence declined among youth, as they became less likely to start smoking in the first place[3]. This suggests that the overall prevalence of smoking will continue to drop because people older than age 18 rarely start smoking[3,4].

Smokers who quit also contributed to the declining prevalence.

Highlights and graphs

Time trend

Age-standardized percentage reporting current smoking (daily or occasional), by sex, household population 12 years or older, Canada 2000/2001, 2003, 2005, 2007 and 2008

Percentage

[Line graph showing Males and Females trends from 2000/2001 to 2008. Males start at about 28 and decline to about 25. Females start at about 24 and decline to about 19.]

* significantly different from estimate for previous time period p<0.05
Note: Age-standardized to Canadian population 1991, direct method.
Source: Canadian Community Health Survey, 2000/2001, 2003, 2005, 2007, 2008.

- Among Canadians aged 12 or older, the age-standardized percentage of current smoking (daily or occasional) declined from 2000/2001 to 2005.

- Since then, smoking prevalence stabilized for males and continued to drop slightly for females (the change between 2005 and 2008 was not statistically significant for males, but was for females).

- Males were consistently more likely to be current (daily or occasional) smokers than women.

Note: Age–standardized, direct method to 1991 Canada population.

Age group and sex

Percentage reporting current smoking (daily or occassional), by age group and sex, household population 12 years or older, Canada, 2008

Percentage

*[Bar graph showing Males (blue) and Females (red) by age group:
Total: Males 24.4, Females 18.5
12 to 17: Males 7.8, Females 7.7
18 to 24: Males 30.8, Females 23.8
25 to 34: Males 33.3, Females 23.8
35 to 44: Males 29.0, Females 20.6
45 to 54: Males 27.7, Females 23.3
55 to 64: Males 22.1, Females 17.2
65 or older: Males 11.7, Females 9.9]*

* significantly different from estimate for males (p<0.05)
† significantly different from overall estimate for same sex (p<0.05)
Source: Canadian Community Health Survey, 2008.

- In 2008, 24.4% of males and 18.5% of females aged 12 or older were daily or occasional smokers: an estimated 3.4 million males and 2.6 million females.

- In all but the youngest age group, males were more likely than females to be smokers. At ages 12 to 17, approximately 8% of males and females reported that they were smokers.

- Smoking prevalence among both males and females aged 12 to 17 was lower than the respective prevalence for Canada overall.

- Males and females aged 18 to 54 reported higher prevalence of smoking than the overall prevalence for the same sex.

- Males aged 55 or older were less likely than Canadian males overall to smoke, while among females, those 65 and older were less likely to smoke than were Canadian females overall.

Province

Age-standardized percentage reporting current smoking (daily or occasional), household population 12 years or older, Canada, provinces and territories, 2008

* significantly different from estimate for Canada (p<0.05)
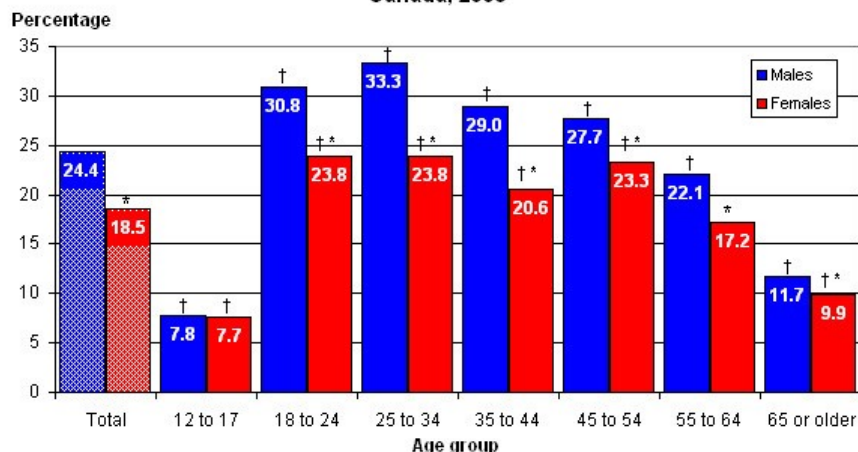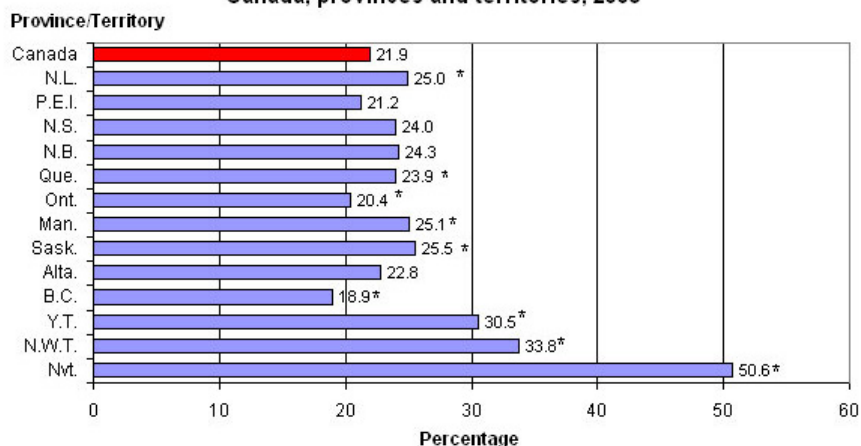**Note:** Age–standardized to Canadian population 1991, direct method.
Source: Canadian Community Health Survey, 2008.

- In 2008, British Columbia and Ontario were the only provinces or territories in which the age-standardized percentage of daily or occasional smoking was below the percentage for Canada as a whole.

- In contrast, residents of Nunavut were more than twice as likely as Canadians overall to smoke.

- Age-standardized percentages of smokers in Yukon and Northwest Territories were also higher than for Canadians overall.

- Residents of Newfoundland and Labrador, Quebec, Manitoba, and Saskatchewan were also more likely than Canadians overall to be smokers.

Note: Age–standardized, direct method to 1991 Canada population.

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Heavy drinking

Heavy drinking is defined as consuming 5 or more drinks on one occasion, 12 or more times over the past year. It is calculated for the population aged 12 or older.

Importance of Indicator

Heavy drinking has been associated with harmful health and social consequences, including increased risk of cardiovascular disease, hypertension, all-cause mortality, unintentional injuries, unprotected sex, drunk driving and illicit drug use[1,2].

Background

Males are more likely than females to report heavy drinking, even when factors such as age, education, marital status and income are taken into account[3].

Smoking has been associated with heavy drinking. In addition, having multiple chronic conditions and the presence of a smoker in the household increased the odds of heavy drinking[4].

Binge drinking is more common than smoking among teenagers and young adults[5].

Highlights and graphs

Time trend

Age-standardized percentage reporting drinking 5 or more drinks on one occasion, at least 12 times in the last year, by sex, population aged 12 or older, Canada, 2000/2001, 2003, 2005, 2007 and 2008
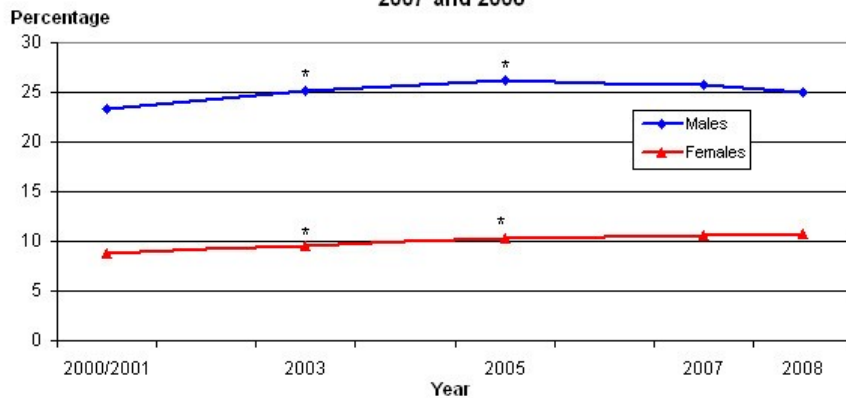
* significantly different from estimate for previous time period (p<0.05)
Note: Age-standardized to Canada population 1991, direct method.
Source: Canadian Community Health Survey, 2000/2001, 2003, 2005, 2007, 2008.

- From 2000/2001 to 2008, age-standardized percentages of heavy drinking rose slightly.

- Males were about 2.5 times more likely than females to report having engaged in heavy drinking.

Note: Age–standardized, direct method to 1991 Canada population.

Age group and sex

Percentage reporting drinking 5 or more drinks on one occasion, 12 or more times in the past year, by age group and sex, household population aged 12 or older, Canada 2008
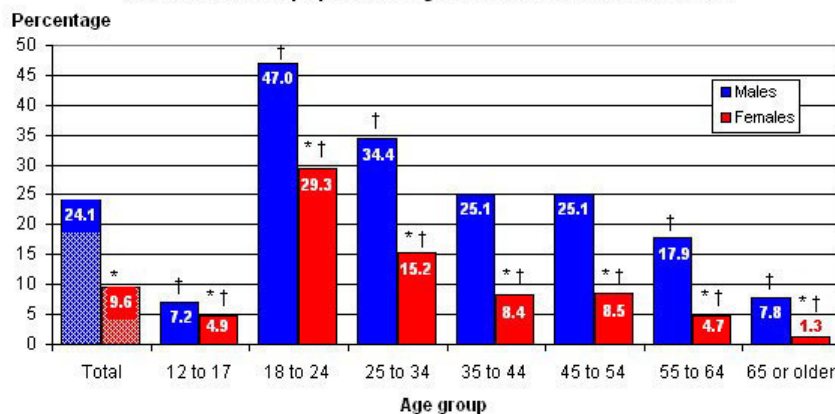
* significantly different from estimate for males, p<0.05
† significantly different from overall estimate for same sex (p<0.05)
Source: Canadian Community Health Survey, 2008.

- In 2008 an estimated 24.1% of males (3.3 million) and 9.6% of females (1.4 million) reported heavy drinking.

- In every age group, even among seniors, males were significantly more likely than females to have engaged in heavy drinking.

- Percentages of heavy drinking jump sharply at ages 18 to 24 (47.0% for males and 29.3% for females), compared with ages 12 to 17. This reflects the legal drinking age across Canada (18 or 19), as well a time of life when youth are more independent and may have moved out of the family home[5].

- Among both sexes, people aged 18 to 34 were more likely than Canadians overall to engage in heavy drinking.

- Starting at age 35, percentages for females were below the overall percentage for Canada. For males, percentages of heavy drinking did not drop below the overall percentage until after age 54.

Province

Age-standardized percentage reporting drinking 5 or more drinks on one occasion, at least 12 times in the last year, household population aged 12 or older, Canada, provinces and territories, 2008
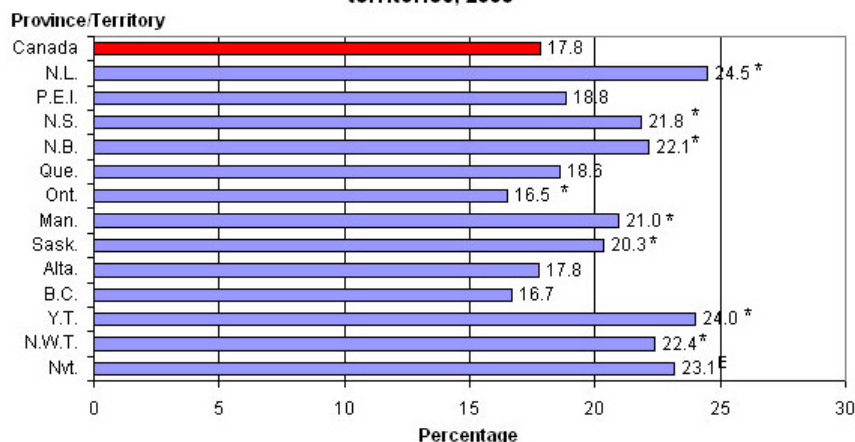
Province/Territory

Province/Territory	Percentage
Canada	17.8
N.L.	24.5 *
P.E.I.	18.8
N.S.	21.8 *
N.B.	22.1*
Que.	18.6
Ont.	16.5 *
Man.	21.0 *
Sask.	20.3*
Alta.	17.8
B.C.	16.7
Y.T.	24.0 *
N.W.T.	22.4*
Nvt.	23.1 E

* *significantly different from estimate for Canada (p<0.05)*
E *interpret with caution (coefficient of variation between 16.6% and 33.3%)*
Note: *Age-standardized to Canada population 1991, direct method.*
Source: *Canadian Community Health Survey, 2008.*

- Age-standardized percentages of heavy drinking were significantly higher than the overall Canadian percentage in Newfoundland and Labrador, Nova Scotia, and New Brunswick.

- Percentages were also higher in Manitoba, Saskatchewan, Northwest Territories, and Yukon.

- Ontario was the only province or territory to report a significantly lower percentage of heavy drinking than did Canadians overall.

Note: Age–standardized, direct method to 1991 Canada population.

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Leisure-time physical activity

Physical activity is based on responses to questions about the frequency, nature and duration of participation in leisure time physical activity in the last three months by the population aged 12 or older. For each leisure-time physical activity reported, an average daily energy expenditure is calculated by multiplying the number of times the activity was performed by the average duration of the activity by the energy cost (kilocalories per kilogram of body weight per hour). The index is calculated as the sum of the average daily energy expenditures of all activities. Respondents are classified as:

- Active - Using 3 or more kilocalories per kilogram of body weight per day (for example, walking an hour or jogging 20 minutes a day).
- Moderately active - Using 1.5 to less than 3 kilocalories per kilogram of body weight per day (for example, walking 30 to 60 minutes a day or taking an hour-long exercise class three times a week).
- Inactive - Using less than 1.5 kilocalories per kilogram of body weight per day (for example, walking less than half an hour a day).

Self-reported percentages of physical activity may be affected by social desirability in reporting and recall bias. Leisure-time physical activity does not take into account energy expended in usual daily activities, at work or for transportation.

Importance of Indicator

The health benefits of physical activity are numerous: reduced risk of cardiovascular disease, some types of cancer, osteoporosis, diabetes, obesity, high blood pressure, depression, stress and anxiety[1,2,3,4,5].

The economic impact of physical inactivity can be substantial[6].

Monitoring trends in prevalence of physical activity is important for understanding population health risks, and for planning and evaluating policies and programs for the promotion of physical activity.

Background

Evidence indicates that 30 minutes of moderate-intensity exercise on most days provide some health benefits, notably, a decreased risk of chronic diseases, and that benefits increase from doing more, especially vigorous activities[1].

Recent recommendations suggest that 60 minutes of moderate-intensity exercise per day is needed to prevent weight gain[3,7].

Compared with those who were inactive, Canadian men and women who were at least moderately active during leisure time were more likely to rate their health excellent or very good (rather than good, fair or poor), reported lower levels of stress, were less likely to report high blood pressure, and were less likely to be overweight or obese. These relationships persisted when socio-demographic characteristics, non-leisure-time physical activity and activity restrictions were taken into consideration[5].

Leisure-time physical activity was less prevalent among people in lower income groups, compared with the highest income group, even when socio-demographic characteristics, non leisure-time activity and activity restrictions were taken into account[5].

Immigrants, regardless of how long they had been in Canada, were less likely to be at least moderately active in their leisure time than were Canadians overall, even when adjustments were made to account for the different age distributions of the two groups[5,8].

Off-reserve Aboriginal people were more likely to be at least moderately active than were Canadians overall[5,9].

Walking is the leisure-time physical activity practiced by the highest percentages of Canadian men and women (64% and 76%, respectively in 2005), and is done more frequently than other activities. Other leading leisure-time physical activities include gardening, home exercises, swimming, bicycling, jogging, dancing, and weight training[5].

Highlights and graphs
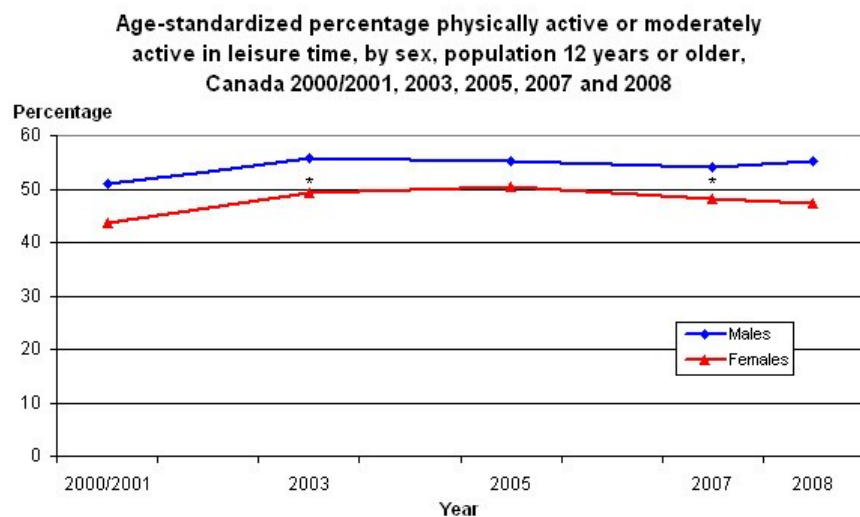
Time trend

Age-standardized percentage physically active or moderately active in leisure time, by sex, population 12 years or older, Canada 2000/2001, 2003, 2005, 2007 and 2008

* significantly different from estimate for previous time period (p<0.05)
Note: Age-standardized to Canadian population 1991, direct method.
Source: Canadian Community Health Survey, 2000/2001, 2003, 2005, 2007, 2008.

- The age-standardized percentage of Canadians reporting that they were active or moderately active increased between 2000/2001 and 2003.

- Females experienced a slight decline in reported leisure-time physical activity between 2005 and 2008, while the percentages for males remained stable.

- Males were consistently more likely than females to be active or moderately active.

Note: Age–standardized, direct method to 1991 Canada population.

Age group and sex

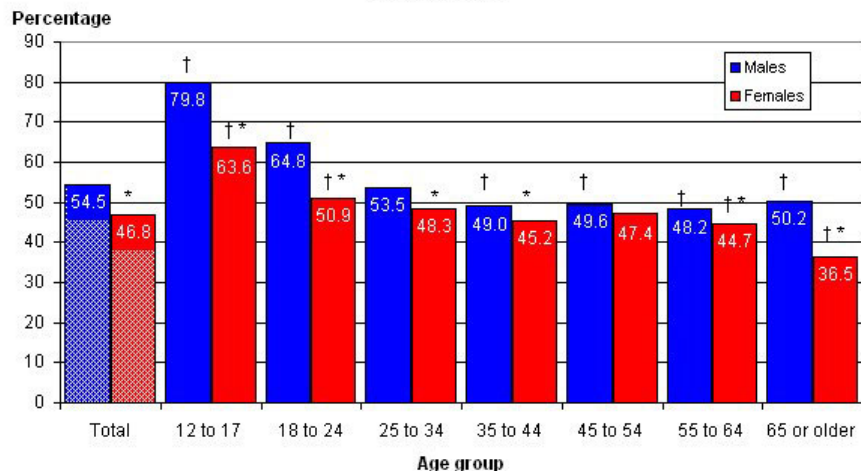Percentage physically active or moderately active in leisure time, population 12 years or older, by age group and sex, Canada 2008

* significantly different from estimate for males (p<0.05)
† significantly different from overall estimate for same sex (p<0.05)
Source: Canadian Community Health Survey, 2008.

- In 2008 just over half of Canadian males (54.5%) aged 12 years or older reported being physically active or moderately active during leisure time, while just under half (46.8%) of females in the same age group reported this level of activity. This corresponds to an estimated 7.4 million males and 6.6 million females.

- With the exception of the 45 to 54 year old age group males were more likely to be active or moderately active than females.

- Males and females in the youngest age groups (under 25 years) were significantly more likely to report being active or moderately active than were Canadians overall. However, a large drop in physical activity rates is apparent for both sexes between the age groups of 12 to 17 and 18 to 24. This may be in part due to transitions in living arrangements, work and social environments that have been associated with decreased physical activity[10,11].

- For males the rate drops below the overall rate for age groups starting at 35, while for females the rate does not drop below Canadian rate until age groups 55 and older.

Province

Age-standardized percentage physically active or moderately active in leisure time, population 12 years or older, Canada, provinces and territories, 2008

Province/Territory

Province/Territory	Percentage
Canada	51.2
N.L.	45.5 *
P.E.I.	48.8
N.S.	49.5
N.B.	50.3
Que.	48.3 *
Ont.	50.0
Man.	53.4
Sask.	49.8
Alta.	53.5 *
B.C.	59.1 *
Y.T.	53.1
N.W.T.	38.3 *
Nvt.	42.7
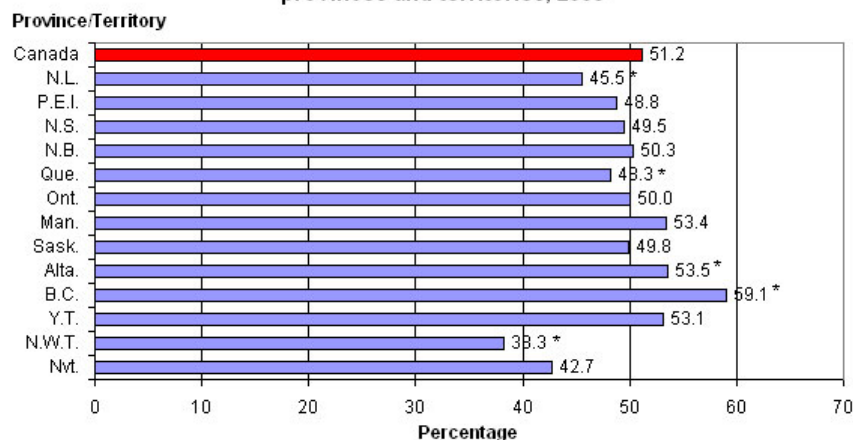
Percentage

* significantly different from estimate for Canada (p<0.05)
Note: *Age-standardized to Canadian population 1991, direct method.*
Source: *Canadian Community Health Survey, 2008.*

- Age-standardized percentages of leisure time physical activity did not vary widely across Canada.

- In 2008 residents of British Columbia and Alberta were more likely to report being active or moderately active than Canadians overall.

- The provinces of Newfoundland and Labrador and Quebec and the Northwest Territories reported lower percentages of physical activity when compared to the national percentages.

Note: Age–standardized, direct method to 1991 Canada population.

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Fruit and vegetable consumption

Adequate fruit and vegetable consumption is examined in terms of the percentage of the population aged 12 or older who reported eating fruit and vegetables at least five time daily. This variable examined frequency of consumption, not the quantity consumed. Thus, it does not translate to number of servings per day.

Evidence suggests that this health indicator is a reasonable proxy for good eating habits[1].

Importance of Indicator

A diet rich in fruit and vegetables may help to prevent cardiovascular disease, certain cancers and obesity[2,3,4,5].

Background
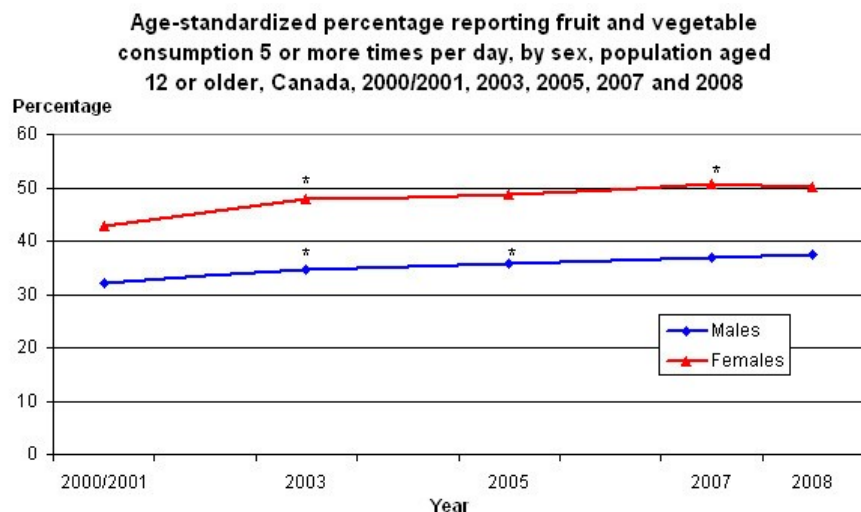
Women eat fruit and vegetables more frequently than do men, although men diagnosed with cancer, heart disease, high blood pressure or diabetes tend to consume these foods more often than do men without these conditions[6].

Low frequency of fruit and vegetable consumption is associated with other health risk behaviours: namely, physical inactivity, smoking, obesity and alcohol dependence[6].

Data from the 2004 Nutrition survey indicated that 7 out of 10 children aged 4 to 8 had less than five servings of vegetables and fruit a day. At ages 9 to 13, 62% of girls and 68% of boys did not meet this level. Consumption was somewhat higher among adults, but around half fell short of the five-serving recommendation[7].

Highlights and graphs

Time trend

Age-standardized percentage reporting fruit and vegetable consumption 5 or more times per day, by sex, population aged 12 or older, Canada, 2000/2001, 2003, 2005, 2007 and 2008

* significantly different from estimate for previous time period (p<0.05)
***Note:** Age-standardized to Canada population 1991, direct method.*
***Source:** Canadian Community Health Survey, 2000/2001, 2003, 2005, 2007, 2008.*

- Canadians are increasingly likely to consume fruits and vegetables 5 or more times per day.

- Females were more likely than males to consume fruits or vegetables 5 or more times each day.

Note: Age–standardized, direct method to 1991 Canada population.
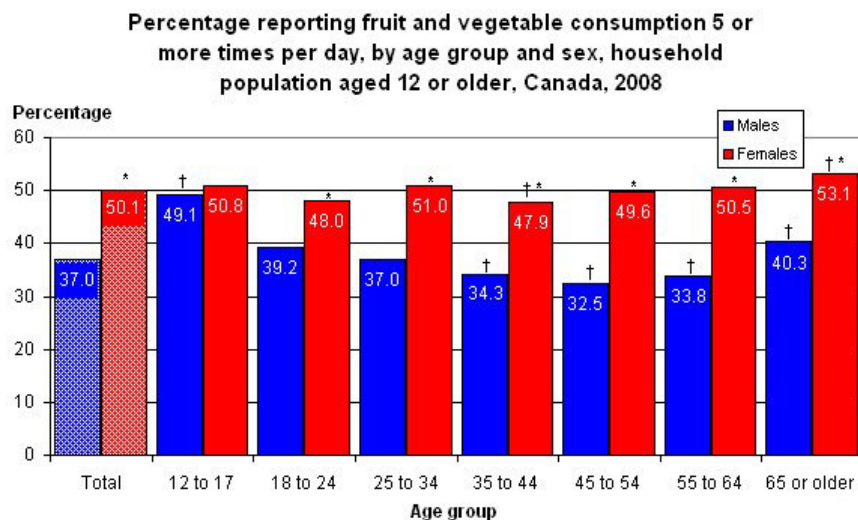
Age group and sex

Percentage reporting fruit and vegetable consumption 5 or more times per day, by age group and sex, household population aged 12 or older, Canada, 2008

* significantly different from estimate for males (p<0.05)
† significantly different from overall estimate for same sex (p<0.05)
***Source:** Canadian Community Health Survey, 2008.*

- In 2008, 50.1% of Canadian females (6.8 million) and 37.0% of males (4.8 million) reported consuming fruits and vegetables 5 or more times per day.

- In all age groups except 12 to 17 (where there was no significant difference), females were more likely than males to report consuming fruits and vegetables 5 or more times per day.

- Among males, 12- to 17-year-olds (49.1%) and seniors (40.3%) reported higher percentages of fruit and vegetable consumption than did Canadian males overall (37.0%). At ages 35 to 64, males were less likely than Canadian males overall to report eating fruit and vegetables 5 or more times per day.

- The frequency of fruit and vegetable consumption among females remained relatively consistent at about 50% for most age groups.

Province

Age-standardized percentage reporting fruit and vegetable consumption 5 or more times per day, household population aged 12 or older, Canada, provinces and territories, 2008

Province/Territory

	Percentage
Canada	43.9
N.L.	33.1 *
P.E.I.	34.4*
N.S.	37.0 *
N.B.	39.1 *
Que.	54.0*
Ont.	40.6*
Man.	34.1*
Sask.	40.1 *
Alta.	45.3
B.C.	42.4
Y.T.	37.3*
N.W.T.	20.8 *
Nvt.	22.3* E

* significantly different from estimate for Canada, p<0.05
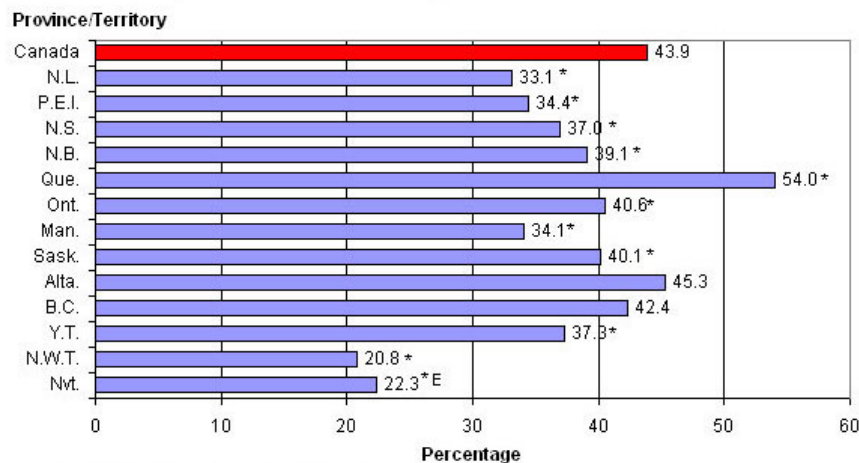E interpret with caution (coefficient of variation between 16.6% and 33.3%)
Note: Age-standardized to Canada population 1991, direct method.
Source: Canadian Community Health Survey, 2008.

- The age-standardized percentage of Canadians reporting consumption of fruit and vegetables 5 or more time per day varied widely across the country.

- Quebec was the only province or territory where the percentage of frequent fruit and vegetable consumption significantly surpassed the percentage for Canada.

- Percentages of residents reporting frequent fruit and vegetable consumption were lower in Nunavut, Northwest Territories and Yukon, compared with Canada overall. This may be related to cultural differences in diet or to the availability and expense of fruit and vegetables in more remote areas.

- The frequency of fruit and vegetable consumption was below the percentage for Canadians overall in Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Ontario, Manitoba, and Saskatchewan.

Note: Age–standardized, direct method to 1991 Canada population.

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Environment

Health is not simply the outcome of age, genetic make-up, and health behaviours; it is influenced by the physical and social environments. The physical environment includes biological, chemical and physical hazards that are found in air, water, soil and food. Exposure to these hazards may occur in specific geographic locations or in places such as the home, workplace, school and the larger community[1]. The social environment encompasses the social, cultural and economic aspects of our lives. It includes institutions and organizations and the ways they interact with individuals and the community[2,3,4]. Thus, everything from the political system (macro–level health determinants) to families and social groups (meso–level determinants) are part of the social environment[1]. These macro– and meso–level factors interact with individuals (micro–level) through behaviours and biological processes[1].

The following indicators were chosen to represent aspects of the physical and social environments whose effects may be felt by individuals directly, such as through exposure to toxins, or indirectly, through access to resources, for example.

Shelter is a basic human need and issues surrounding housing are important to communities. In the Report on the State of Public Health in Canada 2008, Dr. Butler-Jones discusses the negative health consequences of inadequate home environments, from the direct effect of poor ventilation and exposure to toxins to the behavioral risk factors associated with homelessness[5]. The report states that 13.7% of Canadians lack access to acceptable housing. Affordability is a major component of acceptable housing. This report presents housing affordability defined as the proportion of people who spend an excessive amount of their household income on shelter costs, thereby leaving inadequate resources for food and other health–promoting necessities.

Employment is positively associated with health. As well as enhancing the ability to afford housing and other essentials, employment is associated with psychosocial benefits[6,7]. In addition, employment helps generate a tax base that, in turn, provides community services. As a result, individuals and the community as a whole benefit from an employed population. On the other hand, long–term unemployment is a threat to health. Thus, the percentage of the community who remain unemployed for a year or more indicates a group within the community who are likely under stress and is another measure of the health of the social environment.

Education, which is closely linked to employment, is also positively associated with health. An educated population is a community resource and another measure of the social environment. The percentage of young people who have, at minimum, completed secondary school is presented as an indicator of the health of the social environment.

A healthy environment may also be defined as one in which community members thrive physically, mentally and socially. A subjective measure commonly used to assess communities is sense of community belonging. Canadians who feel connected to their community have higher odds of reporting positive health, including mental health[8,9].

Second–hand smoke is an environmental pollutant that directly impacts health through exposure in homes, public places, and vehicles. Second hand smoke has been associated with health problems such as lung cancer, asthma and bronchitis, and Sudden Infant Death Syndrome (SIDS)[10,11]. This report presents the percentage of non-smokers who are exposed daily, or almost daily, in the home, private vehicles, and public places. Monitoring the second hand smoke indicator over time provides insight into the effectiveness of public and private smoking bans[12].

These attributes of the physical and social environments in Canada varied over time and across provinces and territories. Positive findings include the majority of Canadians reporting a strong sense of community belonging; an increase in the percentage of young people with secondary diplomas; and decreasing exposure to second-hand smoke. However, nearly one in four households spent more than 30% of their income on shelter costs in 2006, and it is evident that renters were much more likely than homeowners to face housing affordability problems. Long–term unemployment remained relatively stable although it was high in some areas, particularly the territories and the Atlantic Provinces. Yet these same areas are more likely to report strong community belonging. Relatively high percentages of Ontario and British Columbia residents experienced housing affordability problems, but the percentages of secondary graduates in their populations were also relatively high. These examples illustrate some of the variation across Canada; no single place could be labelled the "healthiest" place to live.

Despite provincial and territorial differences, males and females expressed similar feelings of community belonging, although younger and older Canadians were more likely to report strong feelings of community belonging than were people in their middle years. Males were more likely than females to be exposed to second-hand smoke, as were children and youth compared with adults.

Monitoring indicators of the physical and social environments in which Canadians live and work is important for understanding changes in population health. It also helps evaluate the health impact of policies aimed at improving social and economic conditions. Addressing housing, education and employment issues, exposure to toxins like second-hand smoke, and striving to enhance sense of community belonging is an "upstream" approach that helps prevent disease and promote health.

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Housing affordability

People in households that spend 30% or more of total household income on shelter expenses are defined as having a "housing affordability" problem. Shelter expenses include electricity, oil, gas, coal, wood or other fuels, water and other municipal services, monthly mortgage payments, property taxes, condominium fees, and rent. Band housing on Indian reserves was not included in the calculation of housing affordability.

Importance of indicator

People who lack access to acceptable housing are more likely than those with adequate housing to experience physical and mental health problems[1]. Acceptable housing is affordable, requires no major repairs, and is not overcrowded. Affordability is the most common problem. The indicator, housing affordability, identifies a sector of the population experiencing financial strain and, given their shelter costs, suffering the consequences of not having adequate funds available for necessities such as food, clothing and transportation. It is a relative measure that reflects the balance of income, living arrangements, and housing costs.

Background

The amount that families pay for housing reflects not only the size and quality of their home, but also, the type of neighbourhood and access to schools, jobs and community resources[2].

Housing affordability problems are not evenly distributed among the population[3,4].

In 2001, 18% of seniors had housing affordability problems[3]. Lower–income seniors are particularly vulnerable; from 1981 through 2001, the prevalence of housing affordability problems rose from 45% to 52% in this group[3].

Seniors who live alone are more likely to have housing affordability problems as are seniors who are renters, residents of large cities, women, and older seniors (85 or older)[3].
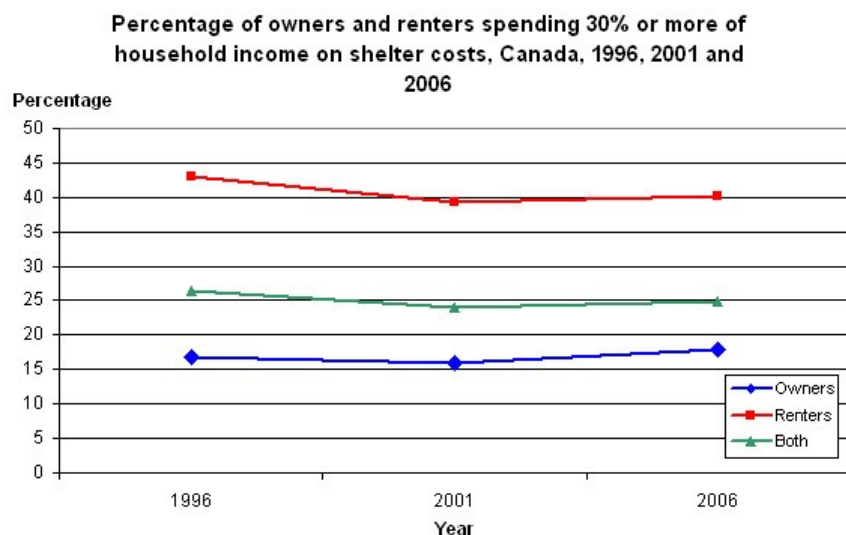
Housing affordability problems affect recent immigrants disproportionately, largely an effect of high housing costs in Toronto and Vancouver where many new immigrants initially settle[3].

The prevalence of housing affordability problems is relatively high among people who live alone, female lone-parent families, and people who have experienced recent family changes (marriage, divorce, and the arrival of children, for example)[4].

Between 2002 and 2004, people with a disability were more likely than those without a disability to have housing affordability problems[4].

Highlights and graphs

Time trend

Percentage of owners and renters spending 30% or more of household income on shelter costs, Canada, 1996, 2001 and 2006

Source: *Census 1996, 2001 and 2006.*

- In 2006, 68% of the 12.2 million occupied private dwellings in Canada were owner-occupied (8.4 million); the remaining 32% (3.9 million) were rented[5].

- One in four Canadian households (more than 3 million) spent at least 30% of their household income on shelter costs.

- The percentage of Canadian households in these circumstances has remained relatively stable since 1996.

- In 2006, 40% of renters, compared with 18% of owners, had a housing affordability problem.

Province

Percentage of renters and owners spending 30% or more of income on shelter costs, Canada and Provinces/Territories, 2006

	Renters (%)	Owners (%)
Canada	40.1	17.8
N.L.	42.7	12.4
P.E.I.	41.6	14.1
N.S.	45.0	13.9
N.B.	39.1	12.6
Que.	35.5	13.8
Ont.	44.3	20.8
Man.	35.3	11.4
Sask.	39.7	13.1
Alta.	37.1	16.6
B.C.	43.4	22.7
Y.T.	28.5	13.2
N.W.T.	20.0	9.9
Nvt.	8.6	12.6
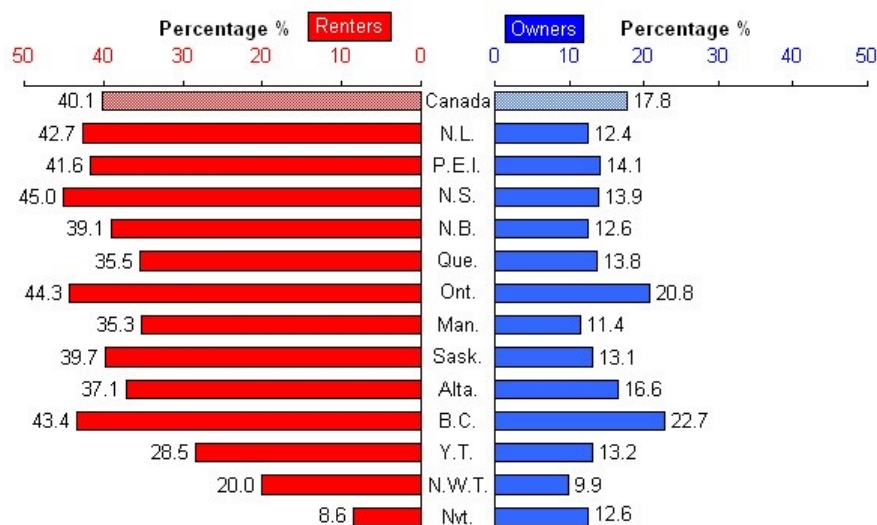
Source: *Census 2006.*

- More than one in five owners living in Ontario and British Columbia had housing affordability issues.

- More than a third of renter households in every province faced high shelter costs; percentages were particularly high in Nova Scotia (45%), Ontario (44%) and British Columbia (43%).

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Long–term unemployment

Long-term unemployment is defined as the proportion of the labour force aged 15 or older who did not have a job any time during the current or previous year (for example, the years 2005 and 2006 for the 2006 Census). The labour force consists of people who are currently employed and those who are unemployed but were available to work in the reference period and had looked for work in the past four weeks.

Importance of indicator

Unemployment is a risk factor for physical and mental illness and mortality. Mechanisms linking unemployment to ill health include financial stress; loss of self–esteem, social status and interpersonal contact; and increases in health risk behaviours[1,2].

Background

Men were more likely than women to experience long–term unemployment[3].

Other groups likely to experience long–term unemployment were older workers and those with fewer years of education[3]. Prolonged unemployment among older workers has been attributed to age discrimination as well as a preference for training younger workers in anticipation of a longer return on that investment[4].

The prevalence of long–term unemployment was relatively high among recent immigrants; possible reasons include lack of recognition for foreign qualifications, inexperience in the Canadian job market, and lack of knowledge of English and/or French[4].

As the duration of unemployment increased, prospective workers were less likely to contact employers directly and more likely to seek work by looking at job advertisements[5].

Highlights and graph

Time trend

Long-term unemployment rate, labour force aged 15 and over, Canada, provinces and territories, 1996, 2001 and 2006

Percentage
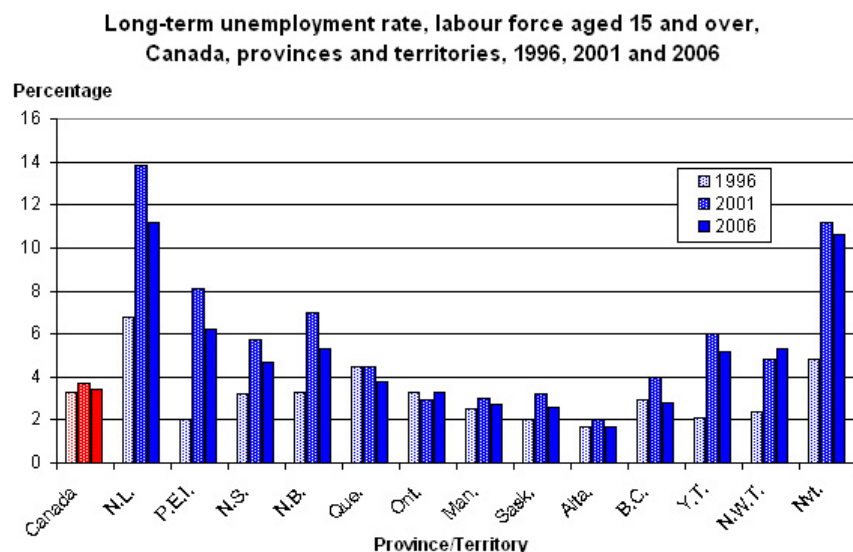
Source: Census 1996, 2001, 2006.

- Between 1996 and 2006, long-term unemployment hovered between 3% and 4%.

- Long-term unemployment was generally higher in the Atlantic Provinces and the territories: in 2001, the rate was 14% in Newfoundland and Labrador, followed by Nunavut at 11%.

- From 2001 to 2006, long term unemployment either stabilized or dropped in most provinces and territories.

- In Quebec, Ontario, the Prairie Provinces and British Columbia, the long–term unemployment rate remained relatively low at around 4% or less throughout the period.

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High school graduates

High school graduation is the population aged 25 to 29 who have a secondary school diploma or equivalent.

Importance of indicator

For individuals, high school graduation is a measure of educational attainment and socio–economic status. Collectively, the percentage of the population who are high school graduates may be a proxy for conditions that promote or interfere with education.

Background

Parents' educational attainment and that of their children are strongly linked. Parents who dropped out of high school were more likely to have children who did the same, compared with parents who graduated. Factors at play include parental expectations, role modelling, and ability to navigate the educational system.[1,2].

The number of siblings has been associated with educational attainment, perhaps because family resources are spread more thinly in a household with more children, making it less likely for each child to have the resources to pursue their education.[1,2].

While working a moderate amount while attending school has been shown to be beneficial, working more than 20 hours per week is associated with dropping out[1,3]. This amount of work may reflect personal priorities or economic necessity. Either way, it likely interferes with completing school assignments.

Secondary students who had few friends planning to undertake postsecondary studies were less likely to pursue further education themselves[2].
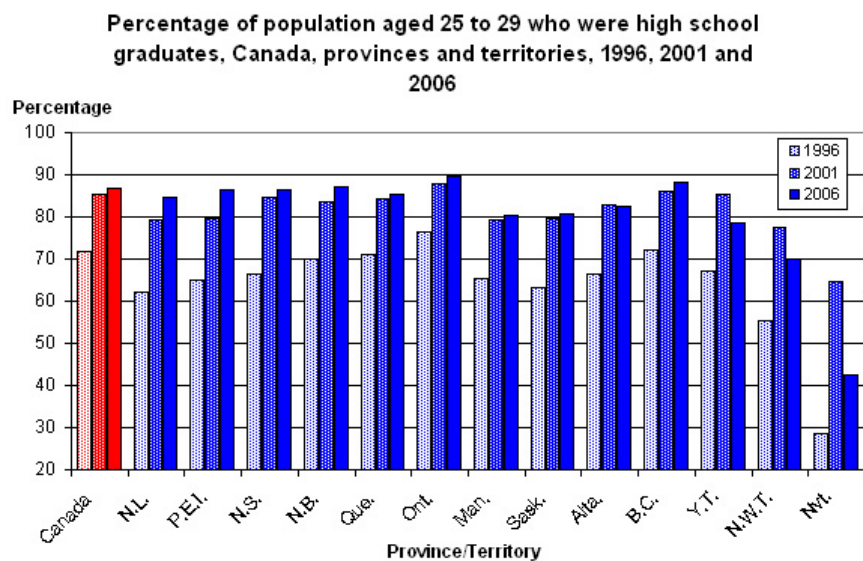
Assuming family responsibilities at an early age—having a child, forming a conjugal relationship, for example—is associated with lower educational attainment[1,2].

People who did not live in an intact family (two-parent, non-step family) were less likely to finish high school[1].

Being male and of Aboriginal origin were associated with dropping out of high school[2].

Highlights and graph

Time trend

Percentage of population aged 25 to 29 who were high school graduates, Canada, provinces and territories, 1996, 2001 and 2006

Source: Census 1996, 2001, and 2006.

- In 2006, 87% of 25- to 29-year-olds had graduated from high school, up from 72% 10 years earlier.
- From 1996 to 2006, the percentage of graduates increased in all provinces and territories.
- Ontario and British Columbia consistently had high proportions of graduates among 25– to 29– year– olds over the 10 year period.
- Nunavut and the Northwest Territories had low percentages of high school graduates among 25– to 29– year–olds. The lower percentages may reflect, in part, the inter–provincial/territorial migration of people with high school diplomas or more.

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Community belonging

To measure sense of community belonging, respondents to the Canadian Community Health Survey were asked, "How would you describe your sense of belonging to your local community? Would you say it is: very strong? somewhat strong? somewhat weak? very weak?".

Importance of indicator

Research has established links between social networks and health outcomes[1]. Social isolation tends to be detrimental to health, while social engagement and attachment are associated with positive health outcomes. Sense of community belonging embodies the social attachment of individuals and reflects social engagement and participation within communities. This type of indicator supports an "upstream" approach to preventing illness and promoting health.

Background

Research shows that sense of community belonging is highly correlated with physical and mental health, even when age, socio-economic status and other factors are taken into account[2,3]. However, because these studies are cross-sectional, causality cannot be inferred—while weak community ties may lead to ill health, illness may also negatively affect sense of community belonging.

Well over half of Canadians consistently report a somewhat strong or very strong sense of community belonging[3].

The percentage of Canadians feeling this way rose during the years of the current decade and has since stabilized at about two-thirds[3].

Youth aged 12 to 17 were most likely to report a strong sense of community belonging; young adults aged 18 to 29 were less likely to do so[3].

At older ages, the likelihood of reporting a strong sense of community belonging gradually increased[2,3]. It has been suggested that this increase is because older people may have more time to participate in community life.

In 2003, seniors with a strong sense of community belonging had higher odds of having good health, even when socio-demographic factors, behavioural risk factors, chronic conditions, and stress were taken into account[4].

The relatively low percentages of young adults reporting a strong sense of community have been attributed to the demands of child-rearing, which may interfere with parents' community involvement[2]. However, contrary to this explanation, in 2005, people with children younger than 12 in the household were more likely than those without children in this age range to report a strong sense of community belonging[3].

A strong or somewhat strong sense of community belonging is not distributed evenly among the population. People living in rural environments and those with higher household incomes were more likely to report a somewhat/very strong sense of community belonging[2,3].

Between 2000/2001 and 2005, the percentage of Canadians with a strong sense of community belonging rose in most provinces, especially New Brunswick, where the figure increased from 62% to 73%[3].

Over the same period, percentages dropped in Nunavut (from 86% to 83%) and Yukon Territory (from 79% to 71%). However, estimates for these territories were among the highest in Canada to begin with[3].

Highlights and graphs

Time trend

Age-standardized percentage reporting a strong or very strong sense of community belonging, by sex, household population aged 12 or older, Canada 2000/2001, 2003, 2005, 2007 and 2008
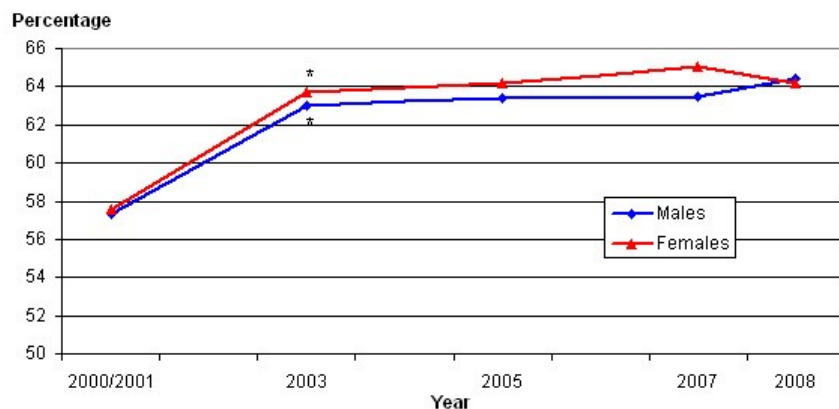
*significantly different from estimate for previous time period (p<0.05)
Note: Age-standardized to Canada population 1991, direct method.
Source: Canadian Community Health Survey, 2000/2001, 2003, 2005, 2007 and 2008.

- The age-standardized percentage of Canadians reporting a very strong or somewhat strong sense of community belonging increased from 57.3% in 2000/2001 to 63.0% in 2003 for males, and from 57.6% to 67.3% for females. After 2003 the percentage stabilized for both males and females.

- In 2007, females were more likely than males to report a somewhat or very strong sense of community belonging; in the other years, there was no difference.

Note: Age–standardized, direct method to 1991 Canada population.

Age group and sex

Percentage reporting a strong or very strong sense of
community belonging, by age group and sex, household
population aged 12 years or older,
Canada 2008
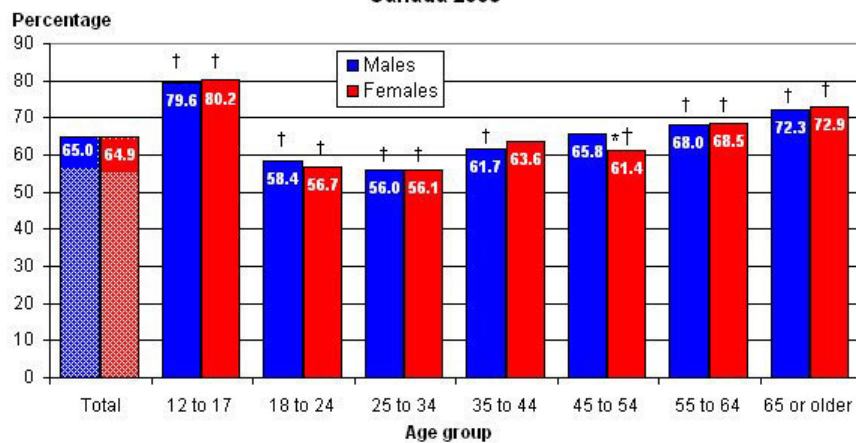
* significantly different from estimate for male (p<0.05)
† significantly different from overall estimate for same sex (p<0.05)
Source: Canadian Community Health Survey, 2008.

- Almost two-thirds of Canadian males (65.0%, 8.7 million people) and females (64.9%, 9.0 million people) reported a strong or very strong sense of community belonging in 2008.

- In most age groups, males were just as likely as females to report a strong sense of community belonging. The exception was ages 45 to 54: males of these ages were slightly more likely than the females to report a strong sense of community belonging.

- Starting at age 55, the likelihood of reporting a strong sense of community belonging exceeded the figure for Canadians overall. The same was true at ages 12 to 17.

- By contrast, both males and females aged 18 to 34 were less likely than Canadians overall to report a strong sense of community belonging.

Province

Age-standardized percentage reporting a strong or very strong sense of community belonging, household population aged 12 or older, Canada, provinces and territories, 2008
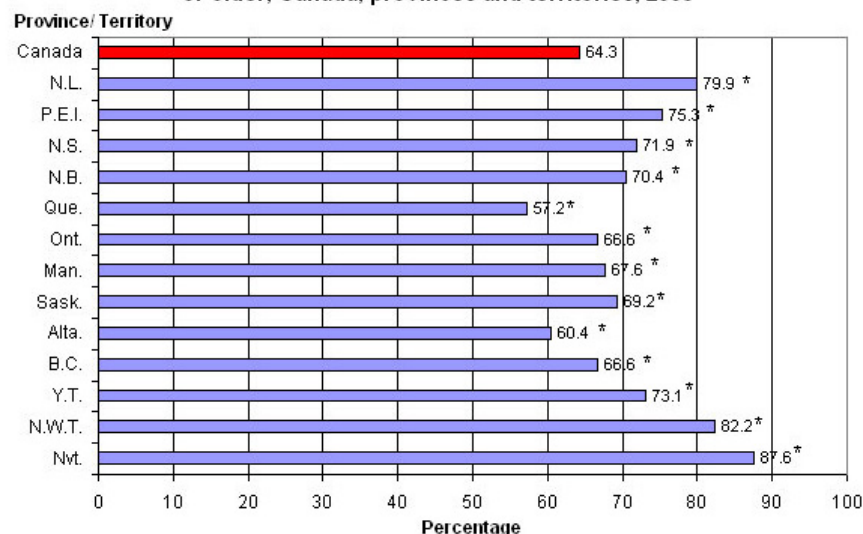
Province/Territory

Province/Territory	Percentage
Canada	64.3
N.L.	79.9 *
P.E.I.	75.3 *
N.S.	71.9 *
N.B.	70.4 *
Que.	57.2*
Ont.	66.6 *
Man.	67.6 *
Sask.	69.2*
Alta.	60.4 *
B.C.	66.6 *
Y.T.	73.1*
N.W.T.	82.2*
Nvt.	87.6*

Percentage

* *significantly different from estimate for Canada (p<0.05)*
Note: *Age–standardized to Canada population 1991, direct method.*
Source: *Canadian Community Health Survey, 2008.*

- In 2008, residents of the Territories and Atlantic Provinces were more likely than Canadians overall to report a strong sense of community belonging.

- In Ontario, Manitoba, Saskatchewan and British Columbia, the likelihood of feeling a strong sense of community belonging was slightly higher than that for Canada as a whole.

- Quebec and Alberta were the only two provinces or territories that had a lower sense of community belonging than Canadians overall.

Note: Age–standardized, direct method to 1991 Canada population.

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Second–hand smoke

To measure regular exposure to second–hand smoke in the home, non-smokers were asked:

- "Including both household members and regular visitors, does anyone smoke inside your home every day or almost every day?" (Yes/No)

To measure regular exposure to second-hand smoke in private vehicles and/or public places, non-smokers were asked:

- "In the past month, were you exposed to second-hand smoke every day or almost every day in a car or other private vehicle?" (Yes/No)

- "In the past month, were you exposed to second-hand smoke every day or almost every day in public places (such as bars, restaurants, shopping malls, arenas, bingo halls, bowling alleys)?" (Yes/No)

Importance of indicator

Second–hand smoke is a combination of the smoke exhaled by smokers and the smoke released directly into the air from the tips of burning cigarettes, pipes and cigars. Prolonged exposure to second-hand smoke increases the risk of lung cancer, heart disease, asthma, bronchitis, middle-ear infections, pneumonia and other respiratory problems[1,2,3,4].

Monitoring trends in second-hand smoke exposure helps identify the non–smoking population whose health may be compromised by exposure, and also helps in the evaluation of programmes and policies aimed at eliminating this exposure.

Background

The prevalence of smoking has declined in recent years, and smoking restrictions in the home have increased[5]. Both of these factors may reduce exposure to second–hand smoke in the home.

Children and youth are particularly susceptible to negative effects of second–hand smoke, but are least likely to have control over whether they are exposed[6].

Males were more likely than females to be exposed to second–hand smoke[7].

Exposure rates to second–hand smoke in public places have varied by province and territory over time, reflecting the different dates when legislation was introduced to restrict smoking in pubic buildings[5]. Variations in the prevalence of current smoking across the country may also influence the likelihood of exposure to second-hand smoke.

Several provinces and territories have introduced legislation to ban smoking in cars when children are present.

Highlights and graphs
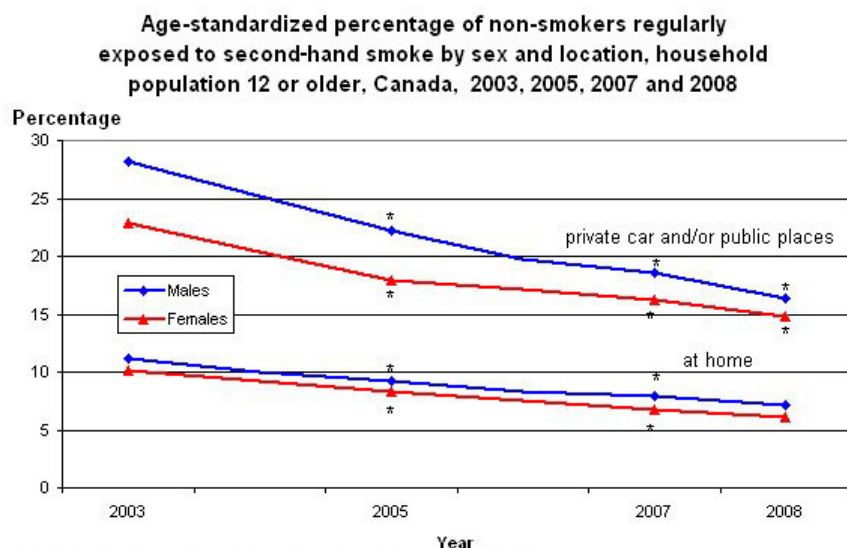
Time trend

Age-standardized percentage of non-smokers regularly exposed to second-hand smoke by sex and location, household population 12 or older, Canada, 2003, 2005, 2007 and 2008

* significantly different from estimate for previous time period (p<0.05)
Note: Age–standardized to Canada population 1991, direct method.
Source: Canadian Community Health Survey, 2003, 2005, 2007, and 2008.

- Among non-smoking Canadians, the age–standardized percentage exposed to second-hand smoke in private vehicles and/or public places has declined since 2003.

- Exposure to second-hand smoke in the home also declined between 2003 and 2008.

- Males were more likely than females to report regular exposure to second-hand smoke in both locations.

Note: Age–standardized, direct method to 1991 Canada population.

Age group and sex

Percentage of non-smokers regularly exposed to second-hand smoke, by age group, sex and location, household poulation aged 12 or older, Canada, 2008
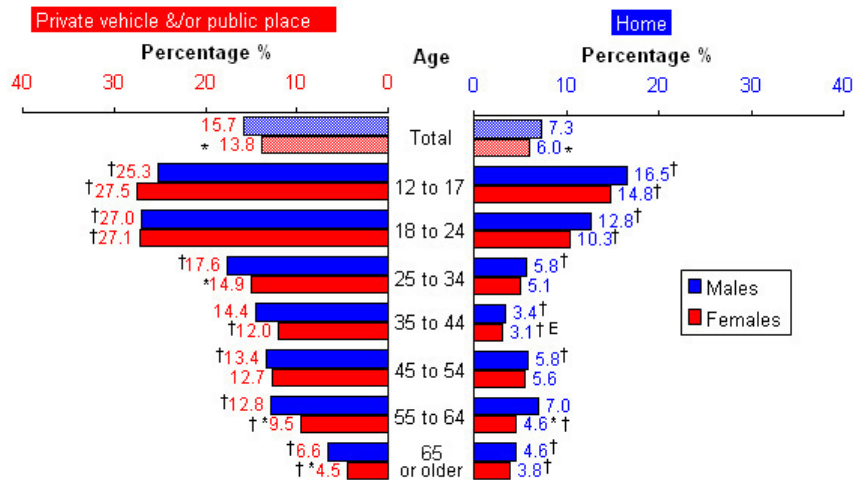
Private vehicle &/or public place | Home

Private vehicle &/or public place Percentage %	Age	Home Percentage %
15.7 / * 13.8	Total	7.3 / 6.0 *
†25.3 / †27.5	12 to 17	16.5† / 14.8†
†27.0 / †27.1	18 to 24	12.8† / 10.3†
†17.6 / *14.9	25 to 34	5.8† / 5.1
14.4 / †12.0	35 to 44	3.4† / 3.1† E
†13.4 / 12.7	45 to 54	5.8† / 5.6
†12.8 / † *9.5	55 to 64	7.0 / 4.6* †
†6.6 / † *4.5	65 or older	4.6† / 3.8†

■ Males
■ Females

* significantly different from estimate for males (p<0.05)
† significantly different from overall estimate for same sex (p<0.05)
E interpret with caution (coefficient of variation between 16.6% and 33.3%)
Source: Canadian Community Health Survey, 2008.

- In 2008, non–smokers were much more likely to report exposure to second-hand smoke in a private vehicle and/or public place (15.7% of males and 13.8% of females) than in the home (7.3% of males and 6.0% of females).

- Age is associated with exposure to second–hand smoke. Children and youth are more likely to be exposed to second-hand smoke than are Canadians overall.

- Despite the declines in the percentage of people exposed to second–hand smoke, in 2008, an estimated 3.2 million non–smokers reported exposure in a private vehicle and/or public place, and 1.5 million reported exposure in their home.

Province

Age-standardized percentage of non-smokers regularly exposed to second-hand smoke by location, household population aged 12 or older, Canada, provinces and territories, 2008

Private vehicle &/or public place | Home

Private vehicle &/or public place Percentage %	Province/Territory	Home Percentage %
15.5	Canada	6.6
16.4	N.L.	8.0
13.4	P.E.I.	7.5 E
17.8	N.S.	6.9
15.8	N.B.	8.4*
14.5	Que.	9.9*
16.2	Ont.	5.9
15.2	Man.	6.6
14.8	Sask.	7.7
15.9	Alta.	5.2*
14.5	B.C.	3.7*
*7.0	Y.T.	6.8 E
*6.5	N.W.T.	4.9 E
15.2	Nvt.	12.2 E

* significantly different from estimate for Canada (p<0.05)
E interpret with caution (coefficient of variation between 16.6% and 33.3%)
Note: Age–standardized to Canada population 1991, direct method.
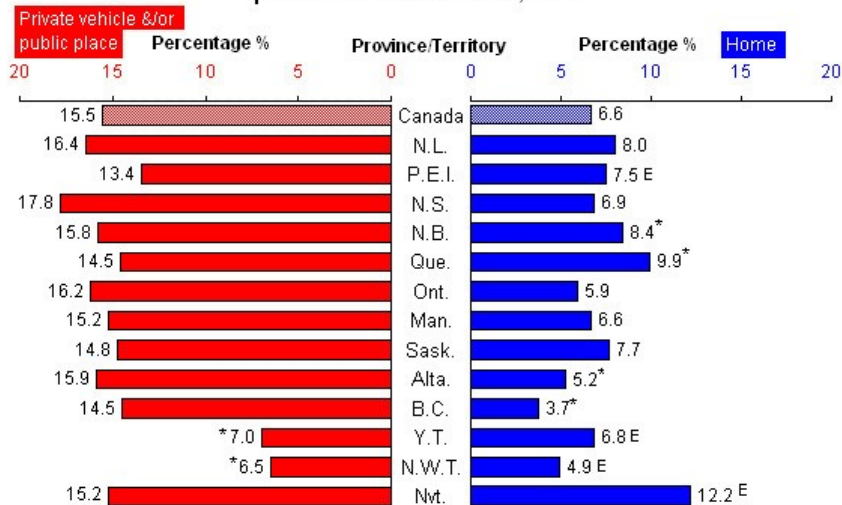**Source:** Canadian Community Health Survey, 2008.

- In 2008, the age–standardized percentage of Canadians exposed to second-hand smoke in the home was higher than the estimate for Canada overall in Quebec and New Brunswick.

- The percentages of non–smokers in Alberta and British Columbia reporting exposure to second-hand smoke in the home were lower than the estimate for Canada overall.

- The percentages of non–smokers in the Northwest Territories and Yukon reporting regular exposure to second-hand smoke in private vehicles and/or public places were lower than the estimate for Canada overall.

Note: Age–standardized, direct method to 1991 Canada population.

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