Causes of death, 2017

Released at 8:30 a.m. Eastern time in The Daily, Thursday, May 30, 2019

Accidental deaths were the third-leading cause of death in Canada in 2017, mostly attributable to an increase in falls and drug overdoses. Overall, 276,689 people died in Canada (excluding Yukon) in 2017, with cancer and heart disease accounting for almost half of all deaths.

Accidents the third-leading cause of death in Canada

Unintentional injuries (accidents) were the third-leading cause of death in Canada in 2017, displacing cerebrovascular disease (stroke) and accounting for 5% of deaths.

Malignant neoplasms (cancer) and heart disease remained the first- and second-leading causes of death in 2017, accounting for 48% of all deaths. This was a marked decline compared with 2000, when these two causes of death accounted for over half of all deaths (54%). The decrease was attributable to the lower share of deaths from heart disease, which fell from 25% of all deaths in 2000 to 19% in 2017, while the percentage of deaths caused by cancer remained stable.

The 7 remaining top 10 leading causes of death in 2017 were unchanged from a year earlier: stroke, chronic lower respiratory diseases, influenza and pneumonia, diabetes, Alzheimer's disease, suicide and liver diseases (chronic liver disease and cirrhosis).

However, influenza and pneumonia overtook diabetes and Alzheimer's disease to rank sixth among the leading causes. Together, the 10 leading causes of death accounted for nearly three-quarters (73%) or 202,042 deaths in 2017.

Cancer and heart disease were the top two leading causes of death in every province and territory except Nunavut in 2017, where suicide became the second leading cause of death, following cancer.

Accidental deaths are on the rise in Canada

Accidental deaths include, but are not limited to, deaths from transport accidents, discharge of firearms, drowning, exposure to smoke or fire, and poisonings.

The number of accidental deaths rose from 8,589 in 2000 to 13,894 in 2017, due to a rise in deaths from falls and poisonings. Drug overdoses represented 94% of these poisoning deaths.

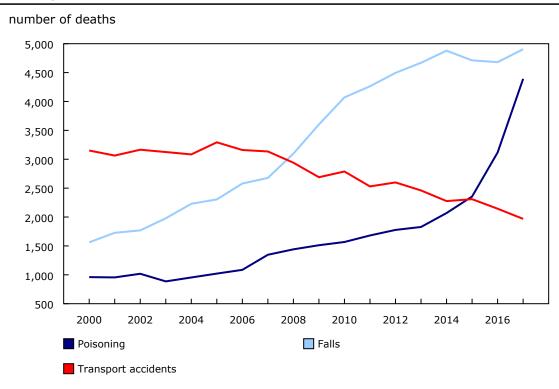
In contrast, there were fewer deaths from transport accidents and a slight decrease or stabilization in deaths from the discharge of firearms, drownings, exposure to smoke or fire as well as other or unspecified accidents.

In 2000, deaths from transport accidents (37%) accounted for the largest share of accidental deaths, followed by falls (18%) and poisonings (11%). From 2000 to 2017, the share of falls and poisonings increased, while the proportion of transport accidents fell by over half. In 2017, 35% or 4,904 deaths were attributable to falls, 32% or 4,392 deaths were due to poisonings (mostly drug overdoses) and 1,968 deaths were attributable to transport accidents (14%).





Chart 1 Trends in deaths due to accidental poisonings, falls and transport accidents, Canada, 2000 to 2017



Source(s): Canadian Vital Statistics: Death Database (3233).

Age-standardized mortality rate for drug overdoses nearly doubles from 2015 to 2017

Canada has been experiencing a serious drug overdose crisis. According to the Public Health Agency of Canada, the opioid crisis has affected Canadians from all walks of life in every part of the country. However, some provinces and territories have been affected more than others and the impact of the crisis differs by sex and age.

There were 4,108 drug overdose deaths in Canada in 2017. Drug overdose deaths have increased in almost every age group since 2000, although the greatest spike has occurred since 2015, where the age standardized mortality rate (standardized to the 2011 population to account for the differences in the age structure of the populations being compared) nearly doubled, from 5.8 deaths per 100,000 population in 2015 to 11.5 deaths per 100,000 population in 2017. The rise in mortality rate over this two-year period was 1.7 times greater than the increase over the previous 15 years, and reflected the onset of Canada's opioid crisis.

Adults aged 30 to 39 the most likely to die from drug overdoses

In comparison with other age groups, more overdose deaths affected adults aged 30 to 34 years (571) and 35 to 39 years (525) in 2017. Adults in these two age groups were also the most likely to die from overdoses, as reflected by the fact that they had the highest drug overdose mortality rates among all age groups.

Although teenagers (15 to 19 years) experienced fewer overdose deaths (91) in 2017 compared with their adult counterparts, the increase in mortality rate was highest in this age group, rising from 1.8 to 4.4 deaths per 100,000 population from 2015 to 2017. Adults aged 25 to 39 and 40 to 44 years also saw a doubling of overdose mortality rates from 2015 to 2017.

Table 1 Death rates for accidental drug overdoses, by age group and sex, Canada, for selected years from 2000 to 2017

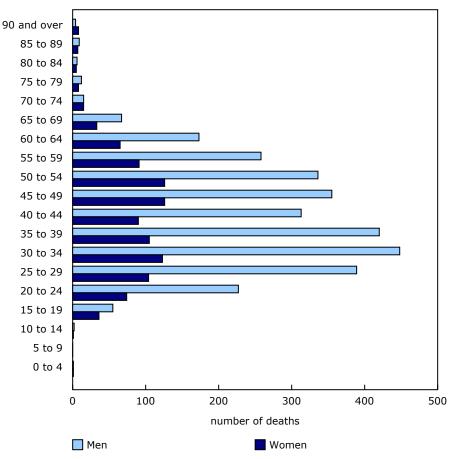
	2000	2005	2010	2015	2016	2017
	mortality rates per 100,000 population					
Crude mortality rate by age						
group (years)						
0 to 4	0.06	0.06	0.16	0.10	0.15	0.10
5 to 9	0.00	0.05	0.00	0.00	0.10	0.00
10 to 14	0.00	0.05	0.00	0.00	0.10	0.15
15 to 19	0.91	0.74	1.33	1.77	2.45	4.35
20 to 24	1.84	2.24	3.66	6.39	9.01	12.53
25 to 29	2.94	3.39	4.33	8.85	12.57	19.62
30 to 34	5.15	3.90	5.43	9.47	17.20	22.71
35 to 39	4.98	5.97	5.56	9.62	13.03	21.39
40 to 44	5.23	5.04	7.12	9.66	12.00	17.13
45 to 49	4.62	5.65	8.45	9.20	13.00	19.90
50 to 54	3.18	4.67	6.30	9.95	13.46	17.34
55 to 59	2.70	2.78	4.42	7.80	10.13	12.95
60 to 64	2.07	1.11	3.74	5.53	6.31	9.97
65 to 69	0.88	1.17	1.98	3.00	3.45	5.01
70 to 74	1.19	0.77	1.79	1.47	2.25	1.96
75 to 79	1.24	1.62	1.53	1.32	2.27	1.89
80 to 84	0.81	1.75	2.48	2.59	1.89	1.46
85 to 89	2.18	1.87	2.87	2.14	2.91	3.24
90 and over	4.67	6.12	3.36	3.26	3.78	3.94
Crude mortality rate by sex						
Men	3.60	3.81	5.13	7.99	11.39	17.04
Women	1.59	1.78	2.63	3.54	4.55	5.53
Age-standardized mortality rate						
Men	3.48	3.71	5.10	8.05	11.51	17.31
Women	1.61	1.76	2.63	3.58	4.59	5.69
Both sexes	2.54	2.74	3.86	5.81	8.07	11.51

Source(s): Canadian Vital Statistics: Death Database (3233) and population estimates (3604).

More men than women die from accidental drug overdoses

More men than women die from accidental drug overdoses. In 2017, men accounted for 60% to 80% of overdose deaths in almost all age groups. According to the 2017 Canadian Tobacco, Alcohol and Drugs Survey, this trend can be explained, in part, by the higher percentage of men than women consuming illicit drugs.

Chart 2
Drug overdose deaths by age group and sex, Canada, 2017



Source(s): Canadian Vital Statistics: Death Database (3233).

Accidental drug overdose deaths are increasing at a faster rate for men than for women

Overdose deaths have increased for both sexes since 2000, however, the rate of increase for men has outpaced that of women. For example, the age standardized mortality rate for women increased from 1.6 deaths per 100,000 population in 2000 to 5.7 in 2017. For men, the rate increased from 3.4 deaths per 100,000 population to 17.3.

For both sexes, the majority of the increase occurred from 2015 to 2017. Death rates due to overdose were 1.6 times higher for women and 2.1 times higher for men in 2017 than they were in 2015, contributing to a slight decrease in life expectancy for men (-0.094 years) and women (-0.017 years) from 2016 to 2017.

British Columbia, Alberta and Ontario have the highest share of drug overdose deaths

The number of accidental overdose deaths has increased in every province since 2000. The proportion of accidental deaths due to overdose was highest in British Columbia (60%) in 2017, followed by Alberta (46%) and Ontario (25%). In contrast, Quebec (11%) had the smallest share of accidental deaths due to overdose.

The drug overdose mortality rate has more than doubled since 2015 in British Columbia (from 10.0 to 25.9 deaths per 100,000 population) and has more than tripled in Alberta (from 4.9 to 18.3 deaths per 100,000 population), while Quebec's rate remained stable, at 3.1 deaths per 100,000 population in 2017. The death rate in Ontario was 1.7 times greater in 2017 than in 2015 (from 6.0 to 10.1 deaths per 100,000).

Deaths from accidental falls have more than tripled since 2000

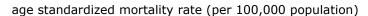
The number of deaths from accidental falls has more than tripled since 2000, rising from 1,562 deaths in 2000 to 4,904 in 2017. This threefold increase in deaths reflects an aging population, with the majority of deaths from falls (86%) attributable to seniors aged 75 years and older.

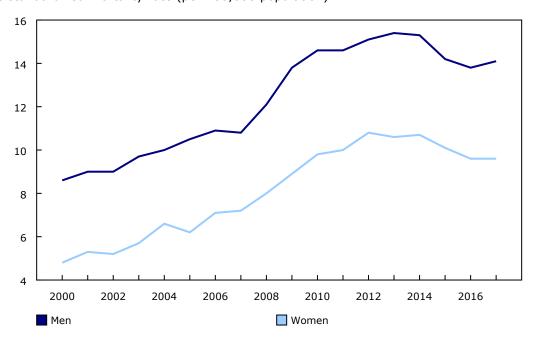
Following a spike from 2000 (6.3 deaths per 100,000) to 2010 (11.9 deaths per 100,000 population), the age standardized mortality rate stabilized from 2011 to 2017. Fractures to the hip and head were the most common fatal injuries in deaths due to falls.

Men are more likely to die from falls than women

Men are more likely to die from falls than women. Although 220 more women died from falls in 2017 than men, the age standardized mortality rate was greater for men (14.1 deaths per 100,000) than for women (9.6 per 100,000).

Chart 3
Age-standardized mortality rates for fatal falls, by sex, 2000 to 2017





Source(s): Canadian Vital Statistics: Death Database (3233) and population estimates (3604).

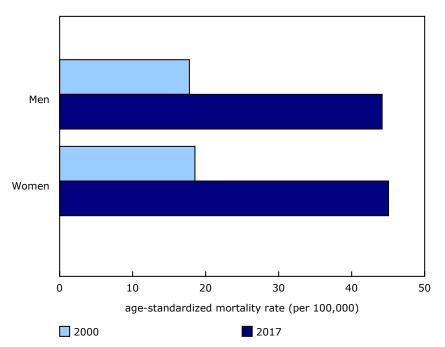
Spotlight on dementia

Over 38,000 deaths per year are either directly or indirectly attributable to dementia.

Deaths due to dementia up more than fourfold from 2000 to 2017

The number of deaths due to dementia rose more than fourfold, from 4,189 in 2000 to 19,394 in 2017. The age-standardized mortality rate for dementia deaths more than doubled for both men (from 17.8 to 44.2 deaths per 100,000 population) and women (from 18.5 to 45.1 deaths per 100,000 population) over this period, contributing to a slight decrease in life expectancy for both men (-0.020 years) and women (-0.036 years) from 2016 to 2017.

Chart 4
Age-standardized mortality rates for dementia, by sex, Canada, 2000 and 2017



Source(s): Canadian Vital Statistics: Death Database (3233) and population estimates (3604).

As one might expect, the death rate due to dementia increases with age. In fact, those aged 85 years and older accounted for almost three-quarters (74%) of dementia-related deaths in 2017. Although this cause of death is not prevalent in the younger population, death rates have more than doubled among those 60 years and older from 2000 to 2017.

Dementia as a contributing cause of death in 2017

In addition to the 19,394 deaths with dementia as the underlying cause of death in 2017, dementia was mentioned on 18,967 death certificates as a contributing factor of death. Dementia was most likely to be mentioned on death certificates for deaths from diseases of the circulatory system (7,249), including stroke (1,902) and myocardial infarction (heart attack) (1,071).

Note to readers

To improve the timeliness of the data, the collection period was shortened in 2017 compared with previous years. As a result, 2017 data are considered preliminary. The data will be revised in future releases.

Data on the causes and number of deaths for deaths that occurred in Yukon or to residents of Yukon in other provinces or territories are not available.

Age-standardized mortality rates account for the differences in the age structure of the populations being compared. The age-standardized rates discussed in this Daily release have been standardized to the 2011 population.

Further information on overdose-related deaths is available in "Changes in life expectancy by selected causes of death," also released in today's Daily.

Available tables: 13-10-0141-01 to 13-10-0156-01 , 13-10-0391-01, 13-10-0392-01, 13-10-0394-01, 13-10-0395-01, 13-10-0716-01, 13-10-0776-01, 13-10-0780-01, 13-10-0782-01, 13-10-0800-01 and 13-10-0801-01.

Definitions, data sources and methods: survey numbers 3233 and 3604.

For more information on illicit drug overdose deaths, please see Illicit drug overdose deaths, 2011 to 2016, British Columbia and Surrey.

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; **STATCAN.infostats-infostats.STATCAN@canada.ca**) or Media Relations (613-951-4636; **STATCAN.mediahotline-ligneinfomedias.STATCAN@canada.ca**).