

Premature and potentially avoidable mortality in Canada, provinces and territories, 2011 to 2020

Released at 8:30 a.m. Eastern time in *The Daily*, Tuesday, April 18, 2023

Based on the definition of avoidable mortality by the Organization for Economic Co-operation and Development (OECD), 77,000, or one-quarter, of the over 307,000 deaths in Canada in 2020 were potentially avoidable. Avoidable deaths are those that occur among people under the age of 75 years and are considered preventable given changes in lifestyle or behaviours, or treatable given access to proper health care.

Avoidable mortality is observed every year. Avoidable mortality should not be confused with excess mortality, which is the difference between the number of observed deaths and the number of expected deaths, based on the trend in mortality rates in previous years. Excess mortality is meant to signal a departure from that trend, owing to some disruptive event, like the COVID-19 pandemic. In 2020, the OECD updated various causes of death that were considered avoidable; notably, they added COVID-19 as a preventable disease. Statistics Canada is releasing updated avoidable mortality rates in tables [13-10-0744-01](#) and [13-10-0753-01](#) for the years 2018 to 2020, with updated avoidable mortality definitions for 2020.

Cancer, heart disease and injuries continue being the most common causes of avoidable death

One-third (33%) of avoidable deaths were from cancers, while almost one-quarter (23%) were from heart disease. Avoidable mortality rates from cancers and heart disease declined from 2011 to 2020. In 2020, the avoidable mortality from cancers was 21% lower compared with 2011, while the avoidable mortality rate from heart disease declined by 12%.

In 2020, cancers accounted for approximately 25,400 deaths, down from 25,700 in 2019. This corresponds to a 4% reduction in the avoidable mortality rate, from 63 per 100,000 population to 61 per 100,000 population.

Injuries accounted for roughly 8,500 deaths, or 11% of all avoidable deaths, in 2020. The avoidable mortality rate from injuries increased over time, rising 18% from 2011. This corresponds to roughly 2,000 additional avoidable deaths.

Heart diseases, COVID-19 and substance use increased avoidable deaths in 2020

From 2011 to 2019, the age-standardized avoidable mortality rates decreased steadily, but an increase of 4% was observed in 2020, corresponding to approximately 3,000 more avoidable deaths. In 2020, more than two-thirds (68%) of avoidable deaths were considered preventable and approximately one-third (32%) were considered treatable.

Avoidable mortality from substance use accounted for 3,400 deaths in 2020, up from 2,700 in 2019. The avoidable mortality rate from substance use rose from 7.9 per 100,000 population in 2019 to 9.2 per 100,000 population in 2020. Similarly, the avoidable mortality rate from heart diseases increased by 5% in 2020 compared with 2019, accounting for 18,000 (correction) avoidable deaths in 2020.

Over 2,900 COVID-19-related deaths occurred among those aged under 75 years in 2020. The age-standardized COVID-19 avoidable mortality rate was 6.8 per 100,000 population.



Avoidable mortality rate is higher in the territories

Avoidable mortality rates generally declined in the provinces from 2011 to 2019. As with national rates, however, most provinces and territories experienced an increase in 2020. In the provinces, the rate ranged from 148 deaths per 100,000 population in British Columbia to 243 deaths per 100,000 population in Saskatchewan. The avoidable mortality rate in the territories was much higher, at 391 deaths per 100,000 population.

Table 1
Age-standardized avoidable mortality rates, by province and territory, 2011 to 2020

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	deaths per 100,000									
Canada	208.7	205.4	203.0	202.5	199.2	194.4	195.2	196.2	188.0	191.3
Newfoundland and Labrador	229.6	248.1	242.1	251.9	250.7	238.7	230.8	226.2	230.9	234.1
Prince Edward Island	227.7	239.1	220.3	189.9	176.2	190.3	194.4	165.5	184.6	176.7
Nova Scotia	240.4	237.2	237.5	234.7	233.7	223.5	233.4	220.8	226.0	223.3
New Brunswick	214.4	214.0	201.5	219.0	221.4	223.9	207.2	215.6	200.1	201.6
Quebec	208.4	203.6	198.6	195.4	194.1	170.6	174.0	179.8	173.5	174.6
Ontario	197.8	195.3	192.6	191.5	188.6	190.9	189.6	193.3	187.9	196.2
Manitoba	252.9	246.4	246.4	252.0	241.4	252.7	245.5	206.8	233.3	227.3
Saskatchewan	257.2	240.4	249.1	253.7	234.7	233.3	233.2	243.7	225.3	242.5
Alberta	223.5	220.3	222.8	220.7	218.8	213.6	218.1	219.2	205.1	216.1
British Columbia	192.8	187.9	186.9	187.3	182.0	186.8	189.8	185.2	160.7	148.1
Territories	335.1	381.3	369.9	350.4	299.3	293.9	314.6	378.6	363.6	391.1

Note(s): Yukon data are available for years 2011 to 2016 only.

Source(s): Vital Statistics Database – Deaths ([3233](#)).

Note to readers

Preventable and treatable mortality are defined using International Statistical Classification of Diseases and Related Health Problems 10th Revision codes (World Health Organization, 2023) by the Organization for Economic Co-operation and Development (OECD). Definitions of preventable and treatable mortality change over time, as some conditions become treatable because of advances in medicine or new conditions appear. OECD revised the definitions of preventable and treatable mortality and added COVID-19 to the list of preventable causes.

The age-standardized mortality rates per 100,000 population were calculated by applying the direct standardization method to the 2011 Census of Population data, with five-year age groupings.

Causes of death information is based on the underlying causes of death, which is defined by the World Health Organization as the disease or injury that initiated the train of events leading directly to death, or as the circumstances of the accident or violence that produced the fatal injury. The underlying cause of death is selected from the causes and conditions listed on the medical certificate of cause of death, which is completed by a medical professional, medical examiner or coroner. Because some of these causes of death may be revised, the estimates here may be updated.

The estimates released today are preliminary, based on what is reported to Statistics Canada by provincial and territorial vital statistics registries, and may not match figures from other sources, such as media reports, or counts and estimates from provincial and territorial health authorities and other agencies.

These estimates do not include information on deaths that occurred in Yukon for the years 2017 to 2020. Furthermore, deaths investigated by coroners or medical examiners, such as suicides, accidents and homicides, often require lengthy investigation. Consequently, information on the causes of death, particularly among younger Canadians, whose deaths are more likely to result in an investigation, typically requires more time before it is reported to Statistics Canada. In 2020, over 6% of deaths occurring among those aged less than 75 years were classified as "Ill-defined and unknown causes of mortality."

For the definitions of avoidable mortality, please see, "[Avoidable mortality: OECD/Eurostat lists of preventable and treatable causes of death \(January 2022 version\)](#)."

Correction

The original text noted that there were 900 additional deaths from heart disease in 2020 compared to 2019. This has been updated to the total number of deaths related to heart disease in 2020 to provide comparable statistics for the top causes of avoidable mortality.

Available tables: [13-10-0744-01](#) and [13-10-0753-01](#).

Definitions, data sources and methods: survey number [3233](#).

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; infostats@statcan.gc.ca) or Media Relations (statcan.mediahotline-ligneinfomedias.statcan@statcan.gc.ca).