

Reductions in life expectancy directly associated with COVID-19, 2020

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The COVID-19 pandemic led to more than 15,600 deaths in Canada in 2020, mostly among older people.

These deaths contributed to an estimated reduction in life expectancy at birth of 0.41 years (both sexes). This is based on a comparison between an estimate of life expectancy in the absence of the COVID-19 pandemic, and an estimate of life expectancy calculated using COVID-19-related excess deaths.

Compared with the life expectancy of 82.1 years (all sexes) observed in 2019, this decrease would reduce life expectancy at birth to what it was 6 years earlier, in 2013.

Despite the fact that life expectancy is generally expected to increase over time, this is not the first time that a decrease has been observed in recent years. The opioid crisis, for example, led to a slight decrease in life expectancy at birth of 0.07 years in Canada in 2017.

International comparisons

It can be difficult to compare the impact of the COVID-19 pandemic on life expectancy across different countries, given the differences in the way this is measured. However, results from other studies suggest that the decrease in life expectancy observed in Canada was lower than that observed in many other countries, such as the United States, Italy, Spain, France, Switzerland, Sweden, the Netherlands and Austria, but higher than that observed in Germany, Denmark, Finland, Australia and New Zealand.

Some provinces affected more than others

The direct impact of the COVID-19 pandemic on life expectancy at birth was greatest in Quebec, with decreases of 0.84 years among females and 0.80 years among males. These values are about twice those estimated for Canada. The Institut de la Statistique du Québec published preliminary estimates of life expectancy at birth in 2020 that showed lower decreases of 0.7 years among females and 0.4 years among males. The differences between the two series of estimates could be the result of indirect effects, such as lower mortality associated with other causes. Future analyses of the number of deaths by cause may provide a better understanding of the contributions of the direct and indirect effects of the pandemic.

In Manitoba, Ontario and Alberta, deaths attributed to COVID-19 contribute to estimated reductions in life expectancy at birth of 0.60, 0.34 and 0.32 years, respectively.

Note to readers

Life expectancy shows the average number of years lived by newborns, if they were to experience the mortality rates observed in a given year throughout the course of their lives.

The life expectancy for Canada in 2020 will be released when Vital Statistics death data for 2020 reaches a sufficient level of completeness.

The estimated decrease in life expectancy included in this analysis must be interpreted solely as a measure of the excess mortality caused by the COVID-19 pandemic. It does not show the change in life expectancy between 2019 and 2020.



The article "[Reductions in life expectancy directly associated with COVID-19 in 2020](#)" is now available as part of the *Demographic Documents* series ([91F0015M](#)).

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