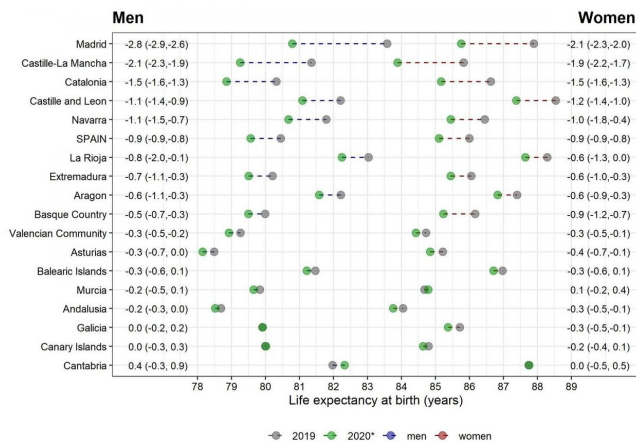


COVID leads to measurable life expectancy drop in Spain, study finds

11 November 2020



Annual life expectancy at birth in 2019, 2020* and differences between periods for Spain and its 17 regions by sex. Credit: Trias-Llimós et al, 2020. Credit: PLOS ONE, CC BY

Spain's annual life expectancy at birth dropped by 0.9 years between 2019 and the annual period up until July 2020 due to the COVID-19 pandemic, according to a new study published this week in the open-access journal *PLOS ONE* by Sergi Trias-Llimos of the Center for Demographic Studies, Spain, and colleagues.

The COVID-19 pandemic is causing substantial increases in mortality in populations worldwide, and Spain was one of the most affected countries in the spring of 2020. Life expectancy is an easy to interpret, standard indicator in mortality patterns. However, few studies assessing the impact of the pandemic on mortality to date have reported [life expectancy](#) estimates.

In the new study, researchers used daily death count data from the Spanish Daily Mortality Monitoring System (MoMo) as well as information on death, population and demographic information from the Spanish National Statistics Institute. The

team estimated weekly and annual life expectancies at birth for 2019 and the annual period up until July 2020.

The weekly life expectancies at birth in Spain were lower in weeks 11 through 20 of 2020—spanning early March through early May—compared to the same weeks in 2019. This drop was particularly significant in weeks 13 and 14—March 23 through April 5—with national declines in weekly life expectancy ranging from 6.1 to 7.6 years and regional weekly declines of up to 15 years in Madrid.

Likewise, the annual life expectancy for the country as a whole declined by 0.9 years between 2019 and the annual period up until July 2020, for both men and women. Regionally, this decline in life expectancy was as high as 2.8 years (95% CI 2.6-2.9) among men in Madrid. The authors state that these findings provide an intuitive measure of the health impact of the pandemic throughout Spain.

The authors say: "Annual life expectancy differences between 2019 and 2020 (annual window that closes out on 5 July 2020) reflected an overall drop in life expectancy of 0.9 years for both men and women. These drops ranged between 0 years in several regions (e.g. Canary and Balearic Islands) to 2.8 years among men in Madrid. Weekly life expectancy dropped by up to 15 years in Madrid during the worst weeks of the first wave." The authors go on to add: "Weekly and annual life expectancy are sensitive and useful indicators for understanding disparities and communicating the gravity of the situation because differences are expressed in intuitive year units...The recently observed [mortality](#) excess in the [second wave](#) suggests the drops in life expectancy by the end of the year to be larger than what currently estimated in this paper (only accounting for the first wave)."

More information: Sergi Trias-Llimós et al,

Monitoring life expectancy levels during the COVID-19 pandemic: Example of the unequal impact of the first wave on Spanish regions, *PLOS ONE* (2020). DOI: [10.1371/journal.pone.0241952](https://doi.org/10.1371/journal.pone.0241952)

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