



January 22nd 2020

WEEKLY DEATHS – preliminary data

Weeks 1 of 2020 to 1 of 2021

MORTALITY IN PORTUGAL IN THE CONTEXT OF THE COVID-19 PANDEMIC

IN THE LAST WEEK OF 2020 AND FIRST OF 2021, THERE WERE 6,705 DEATHS, 1,300 MORE DEATHS THAN THE AVERAGE OF 2015-2019

In the first week of 2021 (January 4th to 10th) there were 3,634 deaths, 563 more deaths than in the last week of 2020 (3,071 deaths) and of 830 more deaths than the 2015-2019 average. Of the total deaths in the first week of 2021, 729 deaths were due to COVID-19, corresponding to 20.1% of the total.

In 2020, there were 123,409 deaths (preliminary data) in Portugal, 11,118 more deaths than in 2019 and an excess mortality of 12,220 deaths when compared with the average of the last five years. Of the total deaths, 61,441 were of men and 61,968 were of women, respectively, 5,269 and 5,849 more deaths than in 2019 and an increase of 5,643 and 6,578 deaths, in comparison with the 2015-2019 average.

In 2020, more than 70% of deaths (88,634) were of people aged 75 or over, of which about 60% (53,088) were aged 85 and over.

Around 1/3 of the deaths occurred in the Norte region. The Área Metropolitana de Lisboa and Centro concentrated around half of the mortality recorded in 2020.

The largest increase in deaths occurred outside the hospital context, 14.4% more deaths than in 2019 and 16.5% above the 2015-2019 average.

In this press release Statistics Portugal provides preliminary data regarding the evolution of the number of deaths that occurred in the national territory per week, from the 1st week of 2020 (December 30th 2019 to January 5th 2020) to the 1st week of 2021 (January 4th to 10th), and per month, for the year 2020, making a comparison with the average number of deaths for the same period of 2015-2019. The average for 2015 to 2019 provides a basis for comparison with the number of deaths expected per week in a normal (non-pandemic) year. Concerning week 53, as only 2015 in the last five years had a week 53, we use for comparison the average of the number of deaths recorded in week 53 of 2015 and in week 52 from 2016 to 2019.

Deaths for weeks 1 to 53 of 2020 are for the period from December 30th 2019 to January 3rd 2021; so, these figures do not represent the calendar year 2020. Therefore, considering that preliminary information on the



total number of deaths registered in Portugal in 2020 is already available, it was decided to present a monthly analysis of mortality for the year.

In the present release, weekly information on deaths will not be analyzed with the usual breakdowns (sex, age group, NUTS II region and place of death), which will be used in the monthly data analysis of 2020. In the next release, the weekly analysis will resume with the usual breakdowns.

Information on deaths is obtained through the Civil Register collected under the Integrated Civil Registration and Identification System (SIRIC) until January 19th 2021. This time lag prevents the disclosed information from being subjected to considerable revisions. Even so, the information referring to 2020 is preliminary and will be subject to subsequent update.

The number of COVID-19 deaths provides only a partial measure of the pandemic on mortality. A more comprehensive measure of the impact on mortality may be provided by the difference between the total number of deaths observed in 2020, by all causes of death, and the average number of deaths for the last five years (2015-2019), even though there are other known effects on mortality, such as seasonal flu and spikes or hot or cold waves.

WEEKLY DEATHS UNTIL 1ST WEEK OF 2021

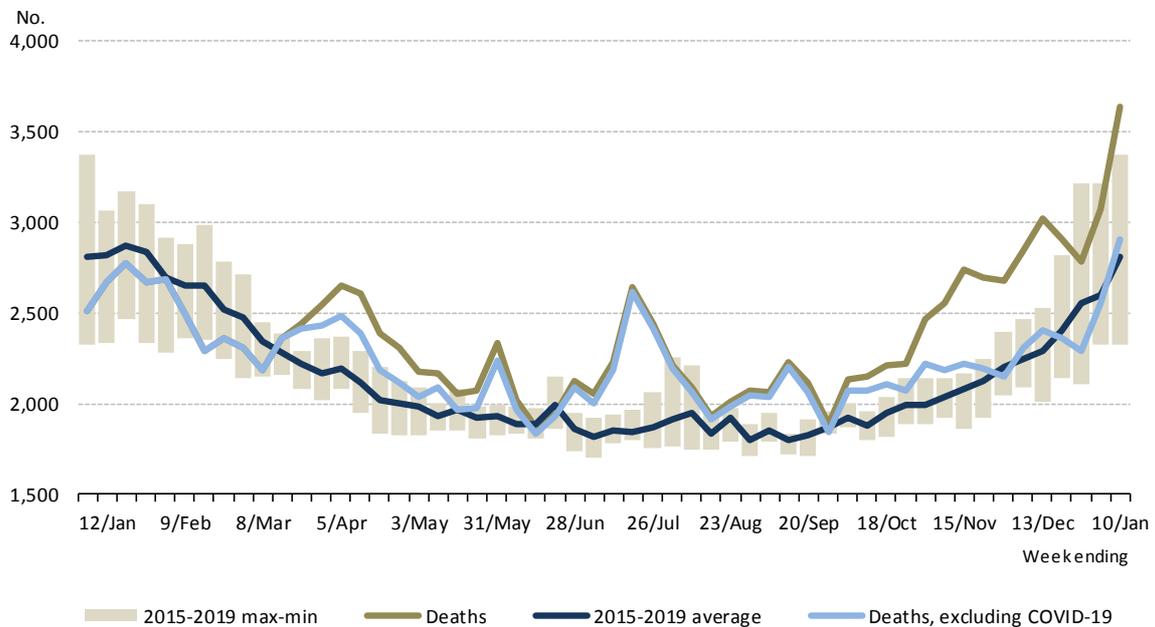
In the weeks 53 of 2020 and 1 of 2021 there were 6,705 deaths, 1,300 more than the 2015-2019 average in the same period.

In the first weeks of 2020, the number of deaths was, in general, lower than the average values observed in the period 2015-2019. In March, contrary to past trends, mortality started to increase, reaching a first peak between March 30th and April 5th, to which COVID-19 deaths contributed in part.

A new maximum of deaths was reached in mid-July, despite the reduced contribution of the number of deaths by COVID-19 to the increase in mortality. Since the last week of September, mortality has, in general, been increasing and, as we approached the end of the year and the beginning of 2021, this increase was increasingly explained by the increase in deaths by COVID-19.

In Figure 1, the shaded bars, defined by the minimum and maximum values of deaths recorded per week in any of the five years between 2015 and 2019, provide an indication of the range of variation in the number of deaths in the considered period. It shows that the number of deaths in 2020 was, from the beginning of March, in general, above the upper limit of this range of values.

Figure 1: Deaths 2020, 2021 and average 2015-2019, by week, Portugal, weeks 1 of 2020 to 1 of 2021

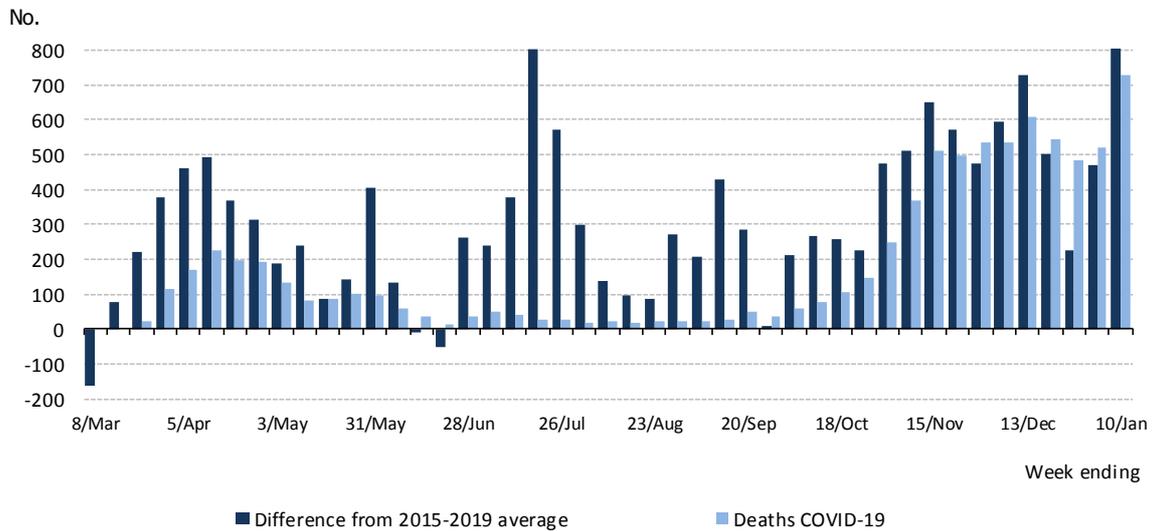


Source: Statistics Portugal, Deaths. Directorate-General of Health, Daily COVID-19 Status Report.

In the weeks 53 of 2020 (December 28th 2020 to January 3rd 2021) and 1 of 2021 (January 4th to 10th), there were 3,071 and 3,634 deaths, respectively, 470 and 830 more deaths than the average of 2015-2019. The number of deaths from COVID-19 in those weeks was 519 and 729, representing 16.9% and 20.1% of the total deaths, respectively.

In Figure 2, the bars represent the total weekly death differential relative to the 2015-2019 average for the same period and the number of COVID-19 deaths.

Figure 2: Difference between deaths 2020, 2021 and 2015-2019 average and COVID-19 deaths, by week, Portugal, weeks 10 of 2020 to 1 of 2021



Source: Statistics Portugal, Deaths. Directorate-General of Health, Daily COVID-19 Status Report.

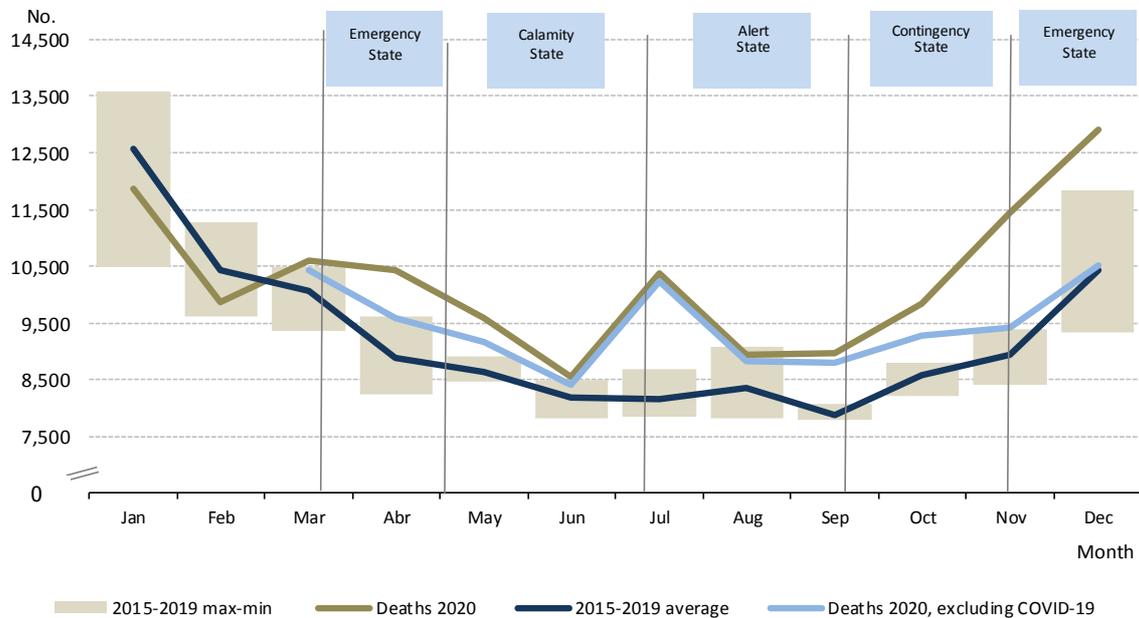
MORTALITY IN 2020

Number of deaths in 2020 10.6% higher than the average of the last five years and 9.5% when compared with 2019.

In 2020, there were 123,409 deaths in Portugal, 12,220 more deaths than the 2015-2019 average and 11,118 more than in 2019.

In the first two months of 2020, the number of deaths was lower than the average values observed in the last five years. However, contrary to what was verified in the past, from March, the month in which the first cases with COVID-19 disease were diagnosed in Portugal, mortality started to increase. Between March and December, to a greater or lesser extent, in all months there was an increase in deaths compared to the 2015-2019 average. In this period 101,669 deaths were registered, an increase of 13,495 deaths in relation to the average of 2015-2019 in the same period.

Figure 3: Deaths 2020 and average 2015-2019, by month, Portugal

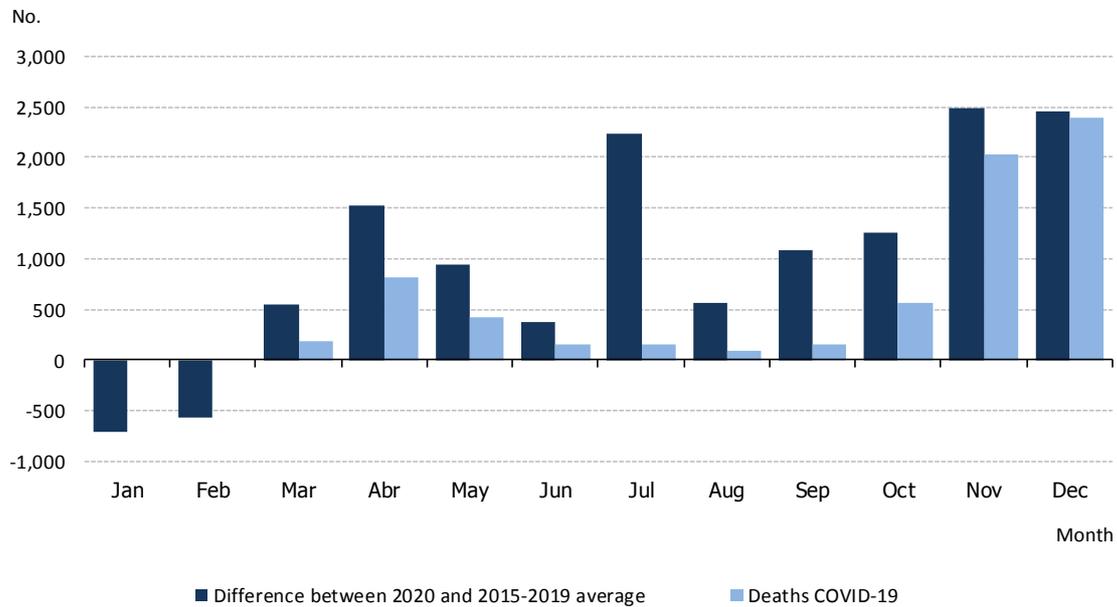


Source: Statistics Portugal, Deaths. Directorate-General of Health, Daily COVID-19 Status Report.

The increase of deaths in 2020 compared with the 2015-2019 average showed a first maximum in April, decreasing in the following two months. In July, there was the second biggest increase in mortality, only surpassed by the excess registered in November and December.

The excess mortality in April was largely explained (53.9%) by the increase in deaths due to COVID-19. This situation did not occur in July, when deaths due to COVID-19 represented only 7.1% of the increase in mortality. However, as of October, the increase in the number of deaths, compared with the 2015-2019 average, was increasingly explained by the increase in deaths by COVID-19. In October and November the number of deaths from COVID-19 represented, respectively, 44.8% and 81.5% of the excess mortality in these months. In December, the number of deaths by COVID-19 (2,395) represented 97.3% of the difference between the total number of deaths and the average number of deaths in 2015-2019 (2,093 deaths), which means that if we excluded COVID-19 mortality would have seen a number of deaths in this month of 2020, very close to the 2015-2019 average.

Figure 4: Difference between deaths 2020 and 2015-2019 average and COVID-19 deaths, by month, Portugal



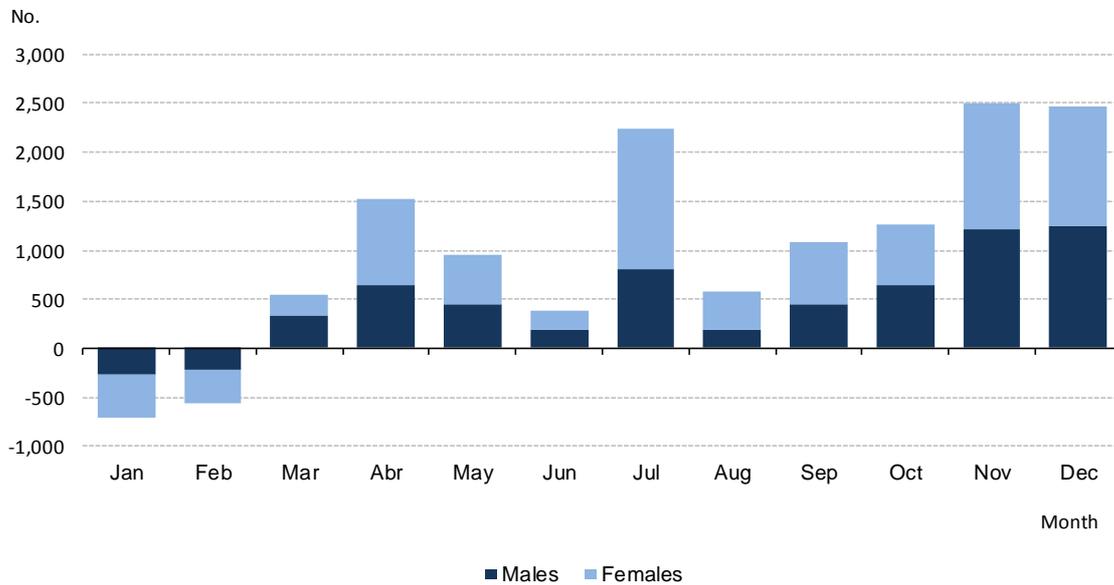
Source: Statistics Portugal, Deaths. Directorate-General of Health, Daily COVID-19 Status Report.

Deaths of men and women, respectively, 10.1% and 11.9% above the 2015-2019 average and 9.4% and 10.4% above 2019.

In 2020 there were 61,441 deaths of men and 61,968 of women, an increase of 5,643 and 6,578 deaths, respectively, compared with the average of deaths in 2015-2019 and another 5,269 and 5,849 in relation to 2019. Of the total deaths of men and women, 50,592 and 51,077, respectively, occurred in the period March-December 2020, an excess mortality of 6,134 deaths of men and 7,362 of women compared to the average of the same period of 2015-2019.

Except for the months of April, October and December, when the increase in mortality resulted mainly from male deaths, the contribution of women's deaths to the increase in the number of deaths was higher.

Figure 5: Difference between deaths in 2020 and 2015-2019 average, by month and sex, Portugal



Source: Statistics Portugal, Deaths.

Deaths of people aged 75 and over 13.0% above the average of the last five years and 11.5% above 2019.

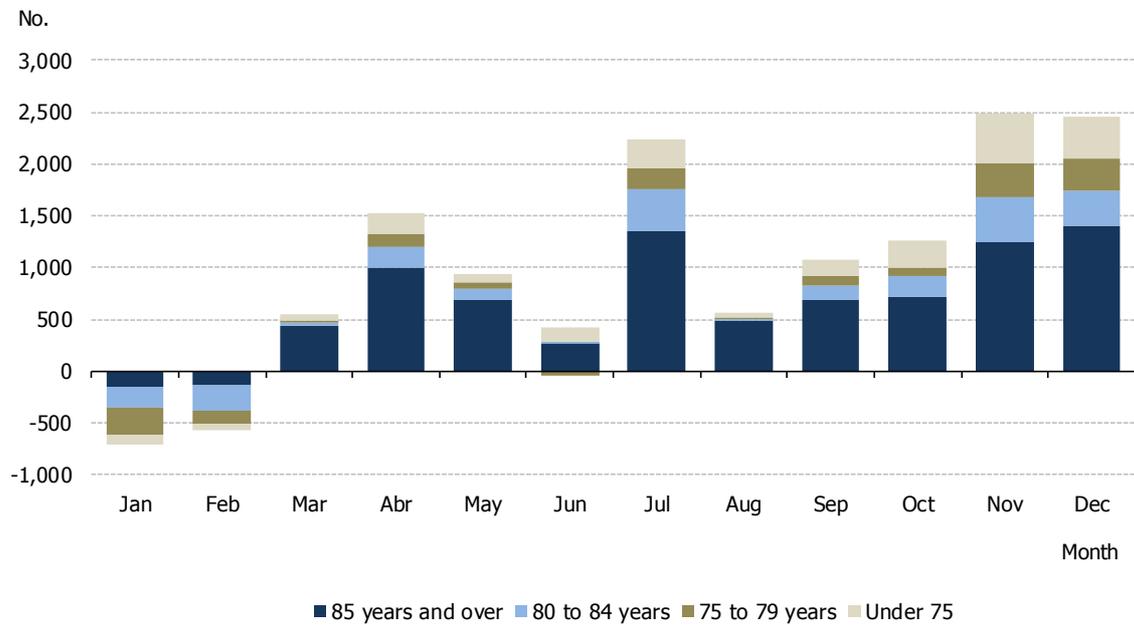
In 2020, 71.8% of deaths (88,634 deaths) were of people aged 75 years and over and, of these, 59.9% (53,088) were of people aged 85 and over. Compared with the average number of deaths in 2015-2019, there was an increase of 10,206 deaths of people aged 75 and over, of which 8,032 were 85 or older. Compared with 2019, in 2020, 9,151 more people aged 75 and over died, of which another 5,889 with 85 and more.

Considering the period from March to December 2020, there were 72,865 (71.7%) deaths of people aged 75 years and over, with 43,491 (59.7%) of those people aged 85 and over.

The 2020 excess mortality was especially prevalent at older ages. The number of deaths in 2020 was above the 2015-2019 average for all age groups above 55 years, with a slight excess of mortality between 45 and 49 years old and in age groups between 15 and 29 years old.

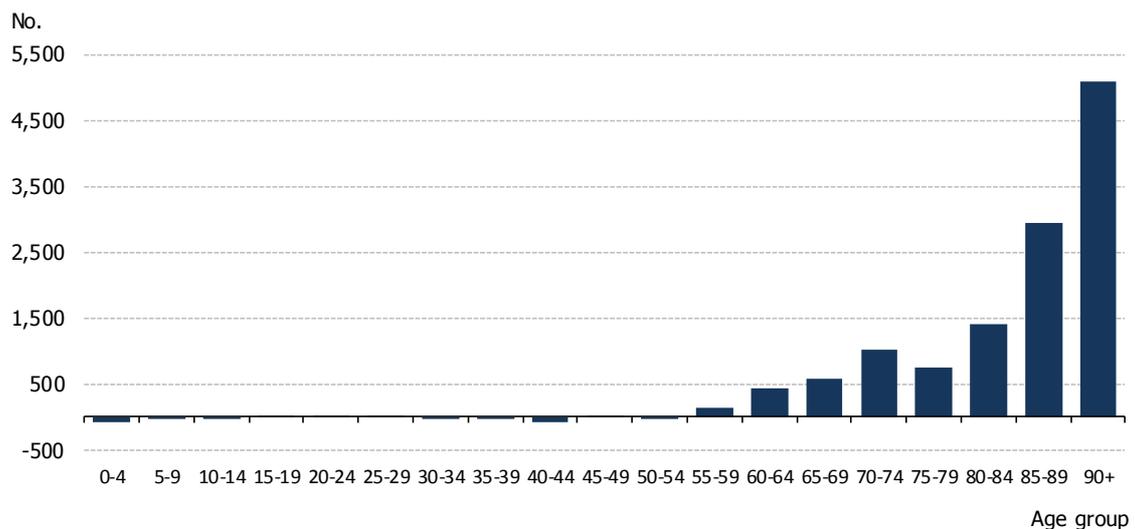
Those aged 90 and over had the greatest excess of mortality. In this age group, there were 5,085 more deaths than the 2015-2019 average, which represented an increase of 22.5%. The second highest increase in mortality was registered in those aged 80 to 84 years, with 2,647 more deaths than the average, corresponding to an increase of 13.1%.

Figure 6: Difference between deaths in 2020 and 2015-2019 average, by month and age group, Portugal



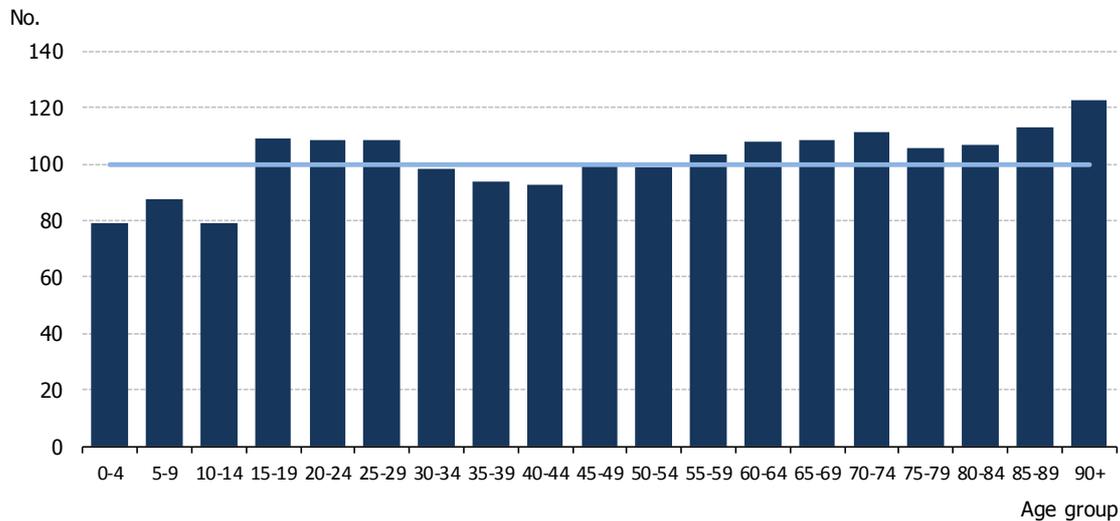
Source: Statistics Portugal, Deaths.

Figure 7: Difference between deaths in 2020 and 2015-2019 average, by age group, Portugal



Source: Statistics Portugal, Deaths.

Figure 8: Ratio between deaths in 2020 and 2016-2019 average (2016-2019 average = 100), by age group, Portugal



Source: Statistics Portugal, Deaths.

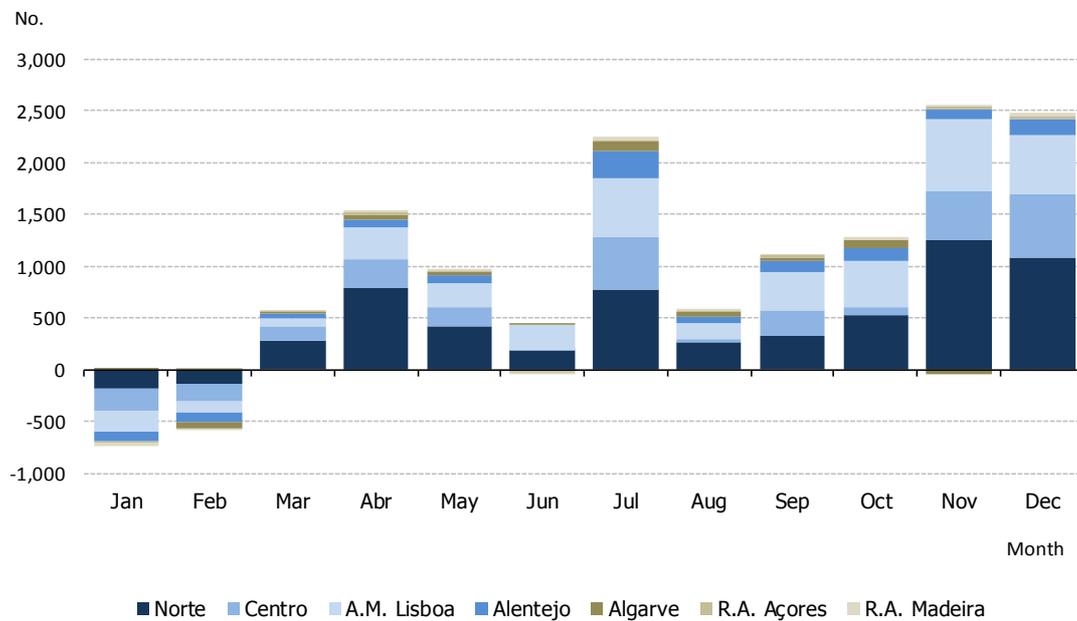
The largest increase in deaths was registered in the Norte region, 16.2% more deaths than the 2015-2019 average and 14.4% more than in 2019.

In 2020, there were 39,976 deaths in the Norte region (32.4% of the total), 30,209 (24.5%) in the Centro region, 31,127 (25.2%) in the Área Metropolitana de Lisboa, 11,251 (9.1%) in the Alentejo, 5 379 (4.4%) in the Algarve, 2 435 (2.0%) in the Região Autónoma dos Açores and 2,708 (2.2%) in the Região Autónoma da Madeira.

Compared to the average of the last five years, the largest increases in mortality were registered in the Norte, another 5,565 deaths (16.2%), followed by the Área Metropolitana de Lisboa, with an additional 3,343 deaths (12.0%) and in the Centro region with a further 2,185 deaths (7.8%). In Alentejo the excess mortality was 823 (7.9%), having been 226 deaths in the Algarve (4.4%) and 130 (5.6%) and 78 (3.0%) deaths in the autonomous regions of the Açores and Madeira.

Compared with 2019, the number of deaths increased 14.4% in the Norte, 10.1% in the Área Metropolitana de Lisboa, 7.6% in the Centro, 7.7% and in the Alentejo, 7.2% in the Açores, 5.1% in the Algarve and 1.1% in Madeira.

Figure 7: Difference between deaths in 2020 and 2015-2019 average, by month and regions NUTS 2



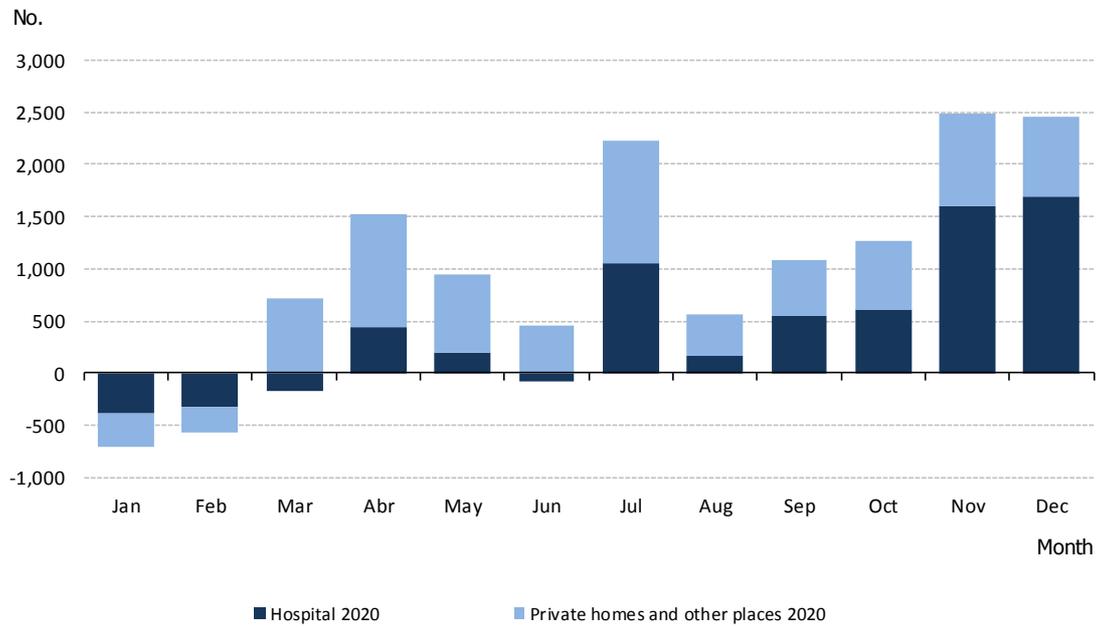
Source: Statistics Portugal, Deaths.

The greatest increase in deaths occurred outside a hospital, 16.5% more deaths than the 2015-2019 average and 14.4% more than in 2019.

Of the 123,409 deaths recorded in 2020, 74,966 took place in a hospital and 48,443 occurred outside the hospital context, corresponding, respectively to an increase of 5,347 (7.7%) and 6,873 (16.5%) deaths compared with the average of the last five years and of 5,021 (7.2%) and 6,097 (14.4%) deaths more than in 2019.

Considering the total of 101,669 deaths registered between March and December, 61,476 occurred in a hospital and 40,193 outside the hospital context (at private homes and other places), corresponding to increases of 6,048 deaths and 7,448 deaths, respectively, in relation to the average over the same period of 2015-2019. The contribution of deaths outside the hospital context is important for the excess of mortality throughout all months, but especially in the months of March to June and August. In the months of November and December, the greatest increase in deaths was registered in hospitals.

Figure 8: Difference between deaths in 2020 and 2015-2019 average, by month and place of occurrence, Portugal



Source: Statistics Portugal, Deaths.



TECHNICAL NOTE

Statistics Portugal releases the preliminary weekly deaths for 2020, based on the information registered in the Civil Register Offices until January 19th 2021.

Data on deaths is obtained from statistical operations of direct and exhaustive collection on live births and deaths in Portuguese territory using facts that are subject to compulsory civil registration (birth and death) in the Sistema Integrado do Registo e Identificação Civil (SIRIC).

In addition to administrative information obtained from Civil Register Offices, Statistics Portugal collects an additional set of variables identified as statistically pertinent to the National Statistic System (NSS) and the European Statistical System (EES).

Data is recorded and sent electronically, in compliance with the requirements set out by Statistics Portugal and laid down in liaison with the Instituto de Registos e Notariado (IRN) and the Instituto de Gestão Financeira e Equipamentos da Justiça (IGFEJ).

DEFINITIONS:

Death: The permanent disappearance of vital functions.

Detailed methodological information available at: www.ine.pt, option Products, Metadata system.

Detailed statistical information available at: www.ine.pt, option Products, Statistical data, database, theme Population, subtheme Mortality and life expectancy.