April 1<sup>st</sup> 2021 WEEKLY DEATHS – preliminary data Weeks 10 and 11 of 2021

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

## DEATHS IN WEEKS 10 AND 11 REMAINED BELOW THE 2015-2019 AVERAGE

In weeks 10 and 11 (March 8<sup>th</sup> to 21<sup>st</sup>), there were 2,128 and 2,091 deaths in Portugal, respectively, 216 and 193 fewer deaths than the 2015-2019 average. The number of deaths due to COVID-19 was 129 and 90, representing, respectively, 6.1% and 4.3% of the total deaths.

Of the 4,219 deaths recorded between March 8<sup>th</sup> and 21<sup>st</sup>, 70.4% corresponded to people aged 75 years and over. Compared to the 2015-2019 average, the number of deaths decreased in all age groups, with the exception of the age groups 65 to 69 years and 70 to 74 years. The greatest reduction occurred in the age group 85 to 89 years old, with 140 deaths less than the 2015-2019 average (-14.3%).

The Norte, Centro and Área Metropolitana de Lisboa concentrated 81.8% of deaths. In terms of the number of deaths per 100 thousand inhabitants, the regions Alentejo (54.3), Centro (46.8) and Algarve (42.6) had in these two weeks values higher than the national (41.0).

In weeks 10 and 11, 62.9% of deaths occurred in hospitals.

In this press release Statistics Portugal provides preliminary data regarding the number of deaths that occurred in the national territory, per week, until the 11<sup>th</sup> week of 2021 (March 15<sup>th</sup> to 21<sup>st</sup>), making a comparison with the average number of deaths for the same period of 2015-2019. The average for 2015 to 2019 provides a reference for the number of deaths expected per week in a normal (non-pandemic) year, considering that there is an excess of mortality when the number of deaths exceeds the average number of that period.

Information on deaths is obtained through the Civil Register collected under the Integrated Civil Registration and Identification System (SIRIC) until March 30<sup>th</sup> 2021. The information is preliminary and will be subject to updates.

## In the weeks 10 and 11 of 2021 the number of deaths remained below the average of 2015-2019

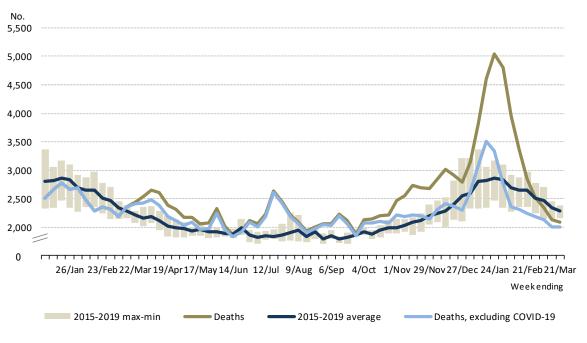
In March, contrary to past trends, mortality started to increase, reaching a first peak between March 30<sup>th</sup> and April 5<sup>th</sup>, to which COVID-19 deaths contributed in part. A new maximum of deaths was reached in mid-July, despite the reduced contribution of the number of deaths due to COVID-19 to the increase in mortality. As the end of the year and the beginning of 2021 approached, this increase was increasingly explained by the increase in deaths due to COVID-19. Since the last week of 2020 (December 28<sup>th</sup> 2020 to January 3<sup>rd</sup> 2021), the number of deaths has steadily increased until week 3 (January 18<sup>th</sup> to 24<sup>th</sup>), reaching in that week the highest number of weekly deaths observed since the beginning of the pandemic (5,036). The total number of weekly deaths by COVID-19 (2,036) since the beginning of the pandemic was recorded.

In weeks 10 and 11 of 2021, the number of deaths continued to decline. In those two weeks, there were 2,128 and 2,091 deaths in Portugal, respectively (a total of 4,219 deaths), below the average of the period 2015-2019 (216 and 193 fewer deaths, respectively), a situation that has already occurred in week 9 (March 1<sup>st</sup> to 7<sup>th</sup>). The number of deaths due to COVID-19 in weeks 10 and 11 was 129 and 90, representing, respectively, 6.1% and 4.3% of the total deaths.

In Figure 1, the shaded bars, defined by the minimum and maximum values of deaths 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, as of the beginning of March 2020, the number of deaths was, in general, above the upper limit of this range of values. In the last three weeks, as already mentioned, the number of deaths decreased to values below the 2015-2019 average, reaching in week 10 and 11 values below the minimum observed in that period.

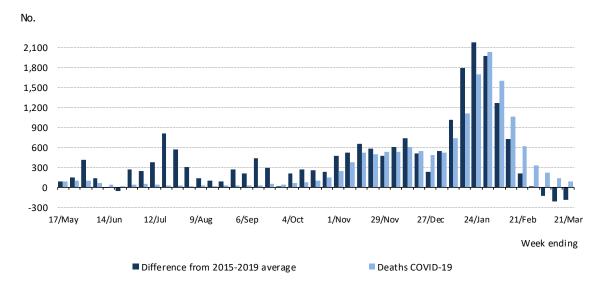
In Figure 2, the bars represent the total weekly death differential relative to the 2015-2019 average for the same period and the number of COVID-19 deaths.

Figure 1: Deaths 2020, 2021 and average 2015-2019, by week, Portugal, weeks 1 of 2020 to 11 of 2021



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

Figure 2: Difference between deaths 2020, 2021 and 2015-2019 average and COVID-19 deaths, by week, Portugal, weeks 20 of 2020 to 11 of 2021



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

### Male mortality slightly higher than female mortality

Between March 8<sup>th</sup> and 21<sup>st</sup> (weeks 10 and 11), there were 2,127 deaths of men and 2,092 of women, a decrease of 182 and 227 deaths, respectively, compared with the 2015-2019 average of deaths in the same weeks. The number of deaths of men, which at week 10 was 1,069, decreased to 1,058 in week 11, representing, respectively, 22.0 deaths per 100 thousand men at week 10 and 21.8 deaths at week 11. The number of deaths of women was in week 10 of 1,059, representing 19.5 deaths per 100 thousand women. In the following week it decreased to 1,033 deaths, corresponding to 19.0 deaths per 100 thousand women.

### Excess mortality continued to occur in age groups 65 to 69 and 70 to 74 years old

Between March 8<sup>th</sup> and 21<sup>st</sup>, 70.4% of deaths (2,971 deaths) were of people aged 75 years and over and, of these, 59.6% (1,772) were of people aged 85 and over. Compared to the 2015-2019 average, the number of deaths decreased in all age groups, with the exception of age groups 65-69 years and 70-74 years. The greatest reduction occurred in the age group 85 to 89 years old, with 140 deaths less than the average (-14.3%).

# Alentejo, Centro and Algarve with the highest number of deaths per 100 thousand inhabitants

Between March 8<sup>th</sup> and 21<sup>st</sup> (weeks 10 and 11) there were 1,249 deaths in the region Norte (29.6% of the total), 1,038 (24.6%) in Centro, 1,165 (27.6%) in Área Metropolitana de Lisboa, 383 (9.1%) in Alentejo, 187 (4.4%) in Algarve, 92 (2.2%) in Região Autónoma dos Açores and 94 (2.2% of the total) in Região Autónoma da Madeira.

In relative terms, the highest number of deaths per 100 thousand inhabitants was registered in Alentejo (54.3 deaths), followed by Centro (46.8) and Algarve (42.6), with values higher than the national (41.0).

In week 10, the number of deaths was below the 2015-2019 average in all regions, with the exception of the Área Metropolitana de Lisboa. In week 11, all regions recorded a number of deaths below the 2015-2019 average.

## More than 60% of deaths occurred in hospitals

Of the total of 4,219 deaths recorded between March 8<sup>th</sup> and 21<sup>st</sup> (weeks 10 and 11), 2,653 (62.9%) took place in a hospital and 1,566 (37.1%) occurred outside the hospital context (at private homes and other places), corresponding, respectively, to decreases of 240 and 169 deaths compared with the average number of deaths observed in the same weeks of 2015-2019.



Table 1: Deaths 2021 and 2015-2019 average by week, Portugal, weeks 9 to 11 of 2021

	Week 9 of 2021 (March 1 <sup>st</sup> to 7 <sup>th</sup> )				Week 10 of 2021 (March 8 <sup>th</sup> to 14 <sup>th</sup> )				Week 11 of 2021 (March 15 <sup>th</sup> to 21 <sup>st</sup> )						
	Deaths (No.)	Deaths per 100 000 inhab.	2015-2019 deaths average (homologous week)	Change relative to the 2015-2019 average		Deaths (No.)	Deaths per 100 000	2015-2019 deaths average	Change relative to the 2015-2019 average		Deaths (No.)	Deaths per	2015-2019 deaths average	Change relative to the 2015-2019 average	
				Absolute values	%	Deaths (No.)	inhab.	(homologous week)	Absolute values	%	Deaths (No.)		(homologous week)	Absolute values	%
Total	2,346	22.8	2,473	-127	-5.1	2,128	20.7	2,344	-216	-9.2	2,091	20.3	2,284	-193	-8.5
Sex															
Males	1,201	24.7	1,230	-29	-2.4	1,069	22.0	1,153	-84	-7.3	1,058	21.8	1,156	-98	-8.5
Females	1,145	21.1	1,243	-98	-7.9	1,059	19.5	1,191	-132	-11.1	1,033	19.0	1,128	-95	-8.4
NUTS 2															
Norte	711	19.9	765	-54	-7.1	617	17.3	721	-104	-14.4	632	17.7	697	-65	-9.3
Centro	547	24.7	624	-77	-12.3	547	24.7	599	-52	-8.7	491	22.1	579	-88	-15.2
AM Lisboa	672	23.5	618	54	8.7	608	21.2	584	24	4.1	557	19.5	566	-9	-1.6
Alentejo	219	31.1	230	-11	-4.8	182	25.8	218	-36	-16.5	201	28.5	223	-22	-9.9
Algarve	89	20.3	114	-25	-21.9	86	19.6	107	-21	-19.6	101	23.0	104	-3	-2.9
RA Açores	49	20.2	49	0	0.0	45	18.5	52	-7	-13.5	47	19.4	53	-6	-11.3
RA Madeira	53	20.8	63	-10	-15.9	41	16.1	57	-16	-28.1	53	20.8	55	-2	-3.6
Age group															
Under 65 years	329	4.1	323	6	1.9	272	3.4	329	-57	-17.3	302	3.8	326	-24	-7.4
65 to 69 years	172	2.1	139	33	23.7	155	1.9	138	17	12.3	147	1.8	147	0	0.0
70 to 74 years	199	2.5	195	4	2.1	201	2.5	183	18	9.8	171	2.1	182	-11	-6.0
75 to 79 years	279	3.5	306	-27	-8.8	245	3.1	276	-31	-11.2	234	2.9	282	-48	-17.0
80 to 84 years	411	5.1	464	-53	-11.4	371	4.6	428	-57	-13.3	349	4.4	399	-50	-12.5
85 to 89 years	476	5.9	530	-54	-10.2	414	5.2	498	-84	-16.9	426	5.3	482	-56	-11.6
90 years and over	480	6.0	516	-36	-7.0	470	5.9	492	-22	-4.5	462	5.8	466	-4	-0.9
Place of occurrence															
Hospital	1,462	-	1,565	-103	-6.6	1,353	-	1,464	-111	-7.6	1,300	-	1,429	-129	-9.0
Another location	884	-	908	-24	-2.6	775	-	880	-105	-11.9	791	-	855	-64	-7.5

#### Notes:

Source: Statistics Portugal, Deaths and Annual Provisional Estimates of Resident Population December 31st 2019.

WEEKLY DEATHS—Preliminary Data – weeks 10 and 11 of 2021

<sup>(1)</sup> Data for 2021 are preliminary.

<sup>(2)</sup> The total number of deaths may not correspond to the sum of the partial figures by sex and residence, due to the existence of records with unknown sex and residence and because it includes deaths in Portugal from residents abroad.

<sup>(3)</sup> The week is defined according to ISO 8601. Every week has 7 days, starts on a Monday and ends on a Sunday. The first week of the year is the one that contains the first Thursday of the year.

## Portugal in the European context

Among the set of European countries that submitted data to Eurostat (see table 2) on the number of weekly deaths for 2021, and for all weeks from years 2016 to 2019 as a basis for comparison, Portugal was in January one of the countries with the highest excess mortality: 59% more deaths than the 2016-2019 average, ranking 2<sup>nd</sup>, only behind Slovakia (77% more).

In week 5 (February 1<sup>st</sup> to 7<sup>th</sup>), Portugal registered 50% more deaths than the 2016-2019 average, the country with the highest excess mortality among those countries with available information. In the following weeks, Portugal's position began to improve. In week 8 (February 22<sup>nd</sup> to 28<sup>th</sup>), mortality in Portugal approached the 2016-2019 average.

Table 2: Monthly and weekly deaths in 29 European countries, 2020 and 2021, compared to 2016-2019 average (2016-2019 average = 100)

Countries	20	20	2021	Weeks 5 to 8 of 2021				
Countries	November	December	January	February 1 <sup>st</sup> to 7 <sup>th</sup>	February 8 <sup>th</sup> to 14 <sup>th</sup>	February 15 <sup>th</sup> to 21 <sup>st</sup>	February 22 <sup>th</sup> to 28 <sup>th</sup>	
Austria	148	138	109	103	97	97	94	
Belgium	159	119	101	92	91	95	88	
Bulgaria	194	174	99	93	99	106	112	
Croatia	145	161	108	х	х	х	x	
Cyprus	113	124	112	97	69	78	x	
Czechia	176	145	153	136	137	х	x	
Denmark	106	111	111	103	97	90	83	
Estonia	107	114	112	101	109	108	117	
Finland	106	96	95	93	91	103	99	
France	131	116	110	110	108	111	105	
Germany	113	130	122	106	102	99	90	
Greece	132	130	x	х	х	х	x	
Hungary	159	144	103	90	91	94	99	
Italy	152	127	104	х	х	х	x	
Latvia	110	129	129	126	118	113	104	
Lithuania	139	178	126	105	108	106	87	
Luxembourg	147	139	109	х	х	х	х	
Malta	138	139	101	101	94	103	x	
Netherlands	120	123	118	110	107	105	94	
Poland	197	150	126	108	110	113	111	
Portugal	126	121	159	150	130	111	101	
Romania	163	152	х	х	х	х	х	
Slovakia	139	164	177	х	х	х	x	
Slovenia	189	179	127	104	91	х	x	
Spain	128	109	118	121	111	104	97	
Sweden	111	125	115	99	98	95	90	
Liechtenstein	169	210	114	133	84	126	70	
Norway	100	97	93	87	92	84	86	
Switzerland	163	156	121	97	92	85	81	

Source: Weeks 5 to 8 2021: Statistics Portugal calculations based on online Eurostat <u>database</u> (extracted on 29/03/2021); Months November to December 2020 and January 2021: adapted from Eurostat indicator on <u>Excess mortality – monthly data</u>.

WEEKLY DEATHS- Preliminary Data - weeks 10 and 11 of



#### **TECHNICAL NOTE**

Statistics Portugal releases the preliminary weekly deaths, based on the information registered in the Civil Register Offices until March 30<sup>th</sup> 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).

In this release data on provisional annual estimates of resident population referenced to December 31<sup>st</sup> 2019, released on June 15<sup>th</sup> 2020 (latest figures available), are used in computing the indicators per 100 thousand inhabitants.

Data on the number of deaths by COVID-19 are also used, whose source is the daily situation report COVID-19 of the Directorate-General for Health that 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, by all causes of death, and the average number of deaths for 2015-2019, even though there are other known effects on mortality, such as seasonal flu and spikes or hot or cold waves. Thus, it is considered that there is an excess of mortality when the number of deaths, during a certain period of time, exceeds the number of deaths expected for that period, in this case, the average of the period 2015-2019

## **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.

WEEKLY DEATHS- Preliminary Data - weeks 10 and 11 of