

Attempt to view in perspective the health hazard posed by the COVID-19 pandemic:  
Mortality between February and the end of May 2020 in Spain  
and January and the end of April in Germany  
compared to the general death rate in both countries



## 2. SPAIN

### *2.1 General mortality pattern*

From 2014 to the end of 2018, between 30,000 and 50,000 people died in Spain each month, more in the winter, especially during the flu season, and fewer in the summer, except for periods of intense heat. (3)

The same was true from January to June 2019. (4)

The mortality monitoring page of the Instituto de Salud Carlos III in Madrid (5), the equivalent of the Robert Koch Institute in Berlin, has been providing the corresponding data since December 2019, but the graph shows daily deaths. The monthly figures as comparable data can be determined by using the database provided in .csv format. (6)

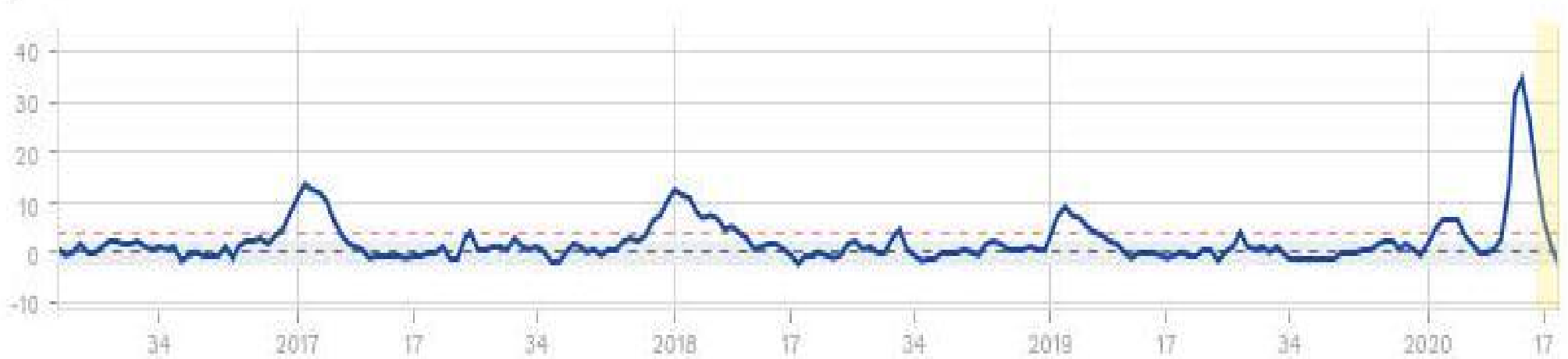
The data is updated and corrected daily, even after 5 weeks (7).

Thus, at the end of May 2020, there was an extraordinary delayed reporting of approx. 12,000 deaths. (1)

### *2.2. Deaths in Spain between February and the end of May 2020*

As can be seen on the mortality monitoring page of the Instituto de Salud Carlos III (7) and is also particularly clear from the European Mortality Monitoring (EuroMoMo) charts (8), mortality has been unusually low this flu season, unlike the 2016/17 and 2017/18 flu seasons.

## Spain



(8)

Particularly striking, however, is the occurrence of deaths in the period between 13 March and 22 May, 2020.

(9)

It can be assumed that this anomaly is due to the new virus, and I will try to place it in the context of the general mortality pattern in Spain by comparing it on the one hand with the mortality pattern during the flu seasons, and on the other hand with some other, constantly present causes and courses of death.

**Table 1: Monthly deaths (all causes) in Spain at times of influenza and COVID-19**

<b>Flu 2016-17<sup>10</sup></b>		<b>12/2016</b>	<b>01/2017</b>	<b>02/2017</b>	<b>03/2017</b>	<b>Sum 4 months</b>
		39,188	49,370	37,434	35,779	161,771 <sup>13</sup>
<b>Flu 2017/18<sup>10</sup></b>		<b>12/2017</b>	<b>01/2018</b>	<b>02/2018</b>	<b>03/2018</b>	
		41,665	47,911	39,756	39,772	169,104 <sup>13</sup>
<b>COVID-19, presented by the Centro Nacional de Epidemiología (MoMo-ISCIH) for the period of excess mortality<sup>8</sup></b>		<b>02/2020</b>	<b>01/03-12/03</b>	<b>13/03-22/05</b>	<b>23/05-31/05</b>	
	<b>expected<sup>14</sup></b>	36,926 <sup>11</sup>	14,488,5 <sup>11</sup>	77,574 <sup>12</sup>	9,263,25 <sup>12</sup>	138,211,75 <sup>13</sup>
	<b>observed</b>	34,584 <sup>11</sup>	14,030 <sup>11</sup>	120,837 <sup>12</sup>	9,659 <sup>12</sup>	179,110 <sup>13</sup>
	<b>excess mortality<sup>14</sup></b>			56 % <sup>12</sup>		40,898 persons <sup>13</sup>
<b>COVID-19, monthly, presented by me in order to achieve comparability</b>		<b>02/2020</b>	<b>03/2020</b>	<b>04/2020</b>	<b>05/2020</b>	
		34,584 <sup>11</sup>	54,463 <sup>12</sup>	56,336 <sup>12</sup>	33,727 <sup>12</sup>	179,110 <sup>13</sup>

March and April 2020 are both months with well over 50,000 deaths, which did not occur even in previous strong flu epidemics.

So-called excess mortality, the difference to long-term averages for this time of year (14), is almost 41,000

people for the four-month period.

What is striking is the concentration of excess mortality in a relatively small period of only 10 weeks, the extreme steepness of the curve.

Looking at this four-month period, which is common for influenza epidemics, independent of what is common for the time of year, **the number of deaths is 6 % or about 10,000 people higher than in the 2017/18 influenza epidemic**, and 11% or about 17,300 people higher than in the 2016/17 influenza epidemic. Regardless of how it is viewed or presented, this is an unusual phenomenon in terms of the severity of its progression and its timing in the year. In purely quantitative terms, too, it is no longer within the range of deaths during the 2017/18 influenza epidemic, when no extraordinary measures were taken, but 6% above it (2) - following the delayed reporting of around 12,000 deaths at the end of May (1).