

## Dying from and dying with coronavirus

12<sup>th</sup> May 2020

[www.thinkingslow.org](http://www.thinkingslow.org)

### COVID related deaths

Perspective

	Source	UK	Source	Italy
Date		24-Apr-20		29-Apr-20
Total number (E&W ONS)	1	27,330	10	25,452
Estimate of Part II death certificate	2	-14.00%		n/a
% deaths with comorbidities	3	94.9%		96.20%
Average age	4	79.2		79.0
Number of co-morbidities	5	2.7		3.3
Year	6	<b>2018</b>		<b>2018</b>
Deaths in year		541,589	11	633,000
COVID deaths expressed in months		0.61		0.48

- 1 ONS data for England & Wales to 24th April 2020
- 2 Proportion where deaths involving COVID did not have COVID as cause of death (March 2020)
- 3 NHS England data to 7 May 2020 - total - 22,049
- 4 Weighted average of deaths related to COVID from ONS data to 24 April 2020
- 5 ONS deaths involving COVID-19 England and Wales: Deaths occurring March 2020
- 6 ONS England and Wales

Certain media outlets have taken to calculating all excess deaths (generally deaths in excess of a five year average) and then attributing all of those deaths to COVID-19. In some cases, that figure is then further increased by various estimates. The table above shows some realities of COVID-19 related deaths for UK and Italy, which are explained below.

### What is death “related to” COVID?

ONS defines a death related to COVID-19 as a death where COVID is mentioned on the death certificate. A death certificate is split into 2 parts, Part I is essentially causes of death and Part II are comorbidities present but not ascribed to the causes of death. Around 14% of ONS deaths related to COVID did not involve COVID as a cause of death. We took this number from the ONS study of March 2020 deaths that showed that 86% of 3,912 deaths involving COVID assigned the disease as an underlying cause of death. It is possible to say that 14% of COVID “related” deaths had very little to do with COVID.

### Comorbidities

Data from National NHS to 5<sup>th</sup> May 2020 shows 1,125 deaths with no preconditions from 22,049 COVID deaths – giving a figure of 94.9% COVID deaths with pre-existing conditions. The number of

pre-existing conditions, is given in the ONS analysis for march 2020 as 2.7 (this applies to all deaths related to COVID = 3,912).

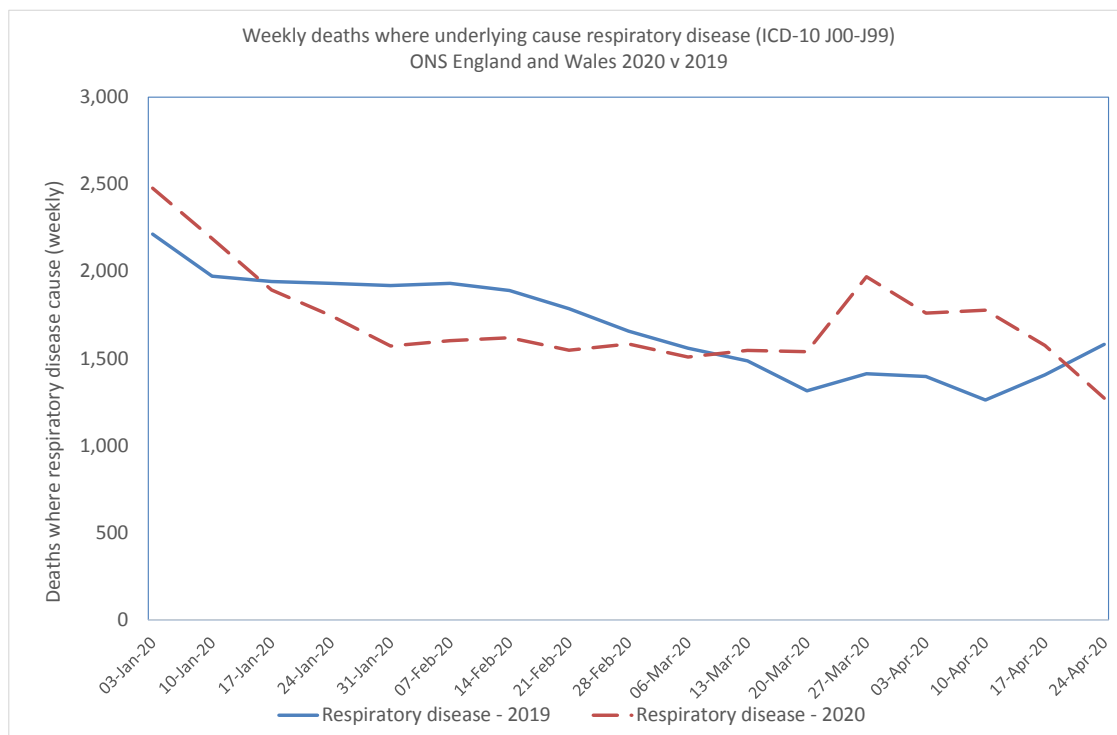
We understand that where there are 2.7 comorbidities it may be difficult to determine an exact underlying cause of death. So even if COVID is mentioned in Part I of the death certificate, unless it is identified in the lowest line of Part I then it won't necessarily be the underlying cause of death. However, for the purposes of this analysis we assume that if COVID-19 is mentioned then it is the underlying cause of death.

### Average age

The average age of 79.2 we calculate from the ONS data for England & Wales and we multiply the number of certificates mentioning COVID-19 by the mid point of the relevant age group. The data that we used were ONS deaths for England & Wales up to 24<sup>th</sup> April 2020.

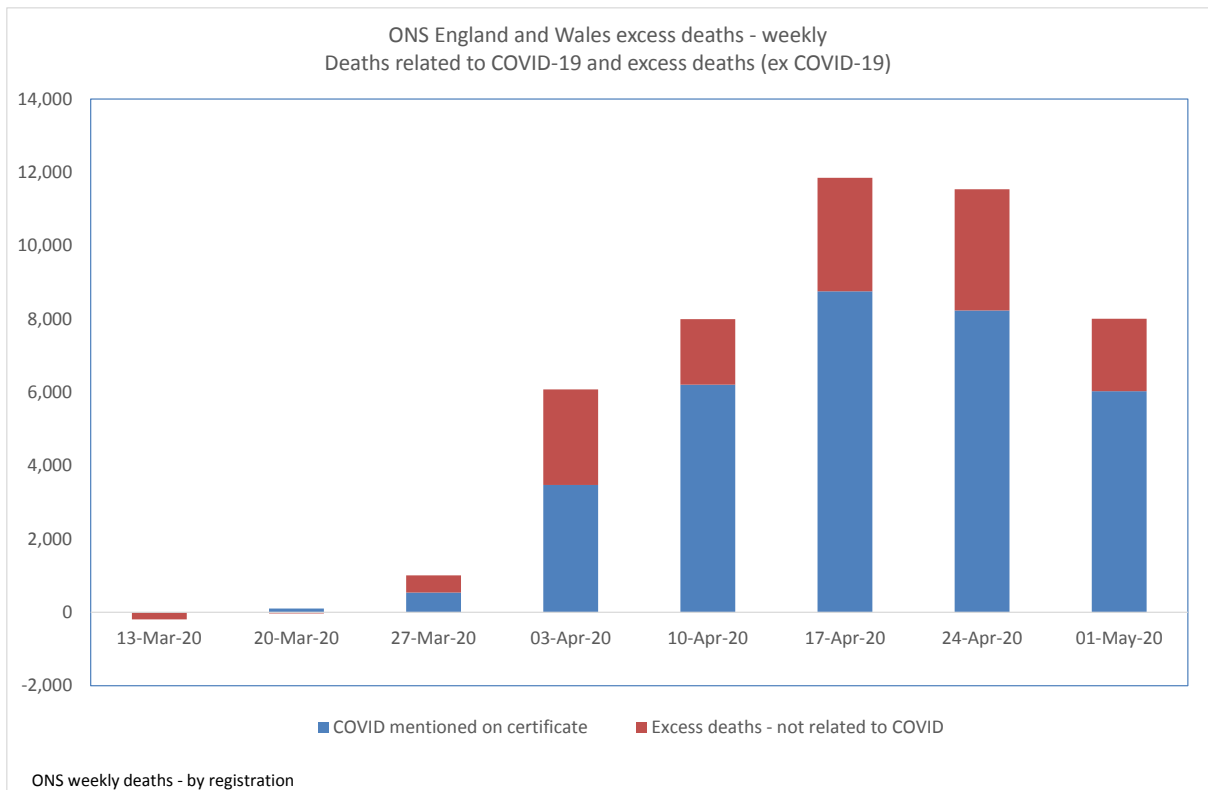
### Outstanding queries

It is possible that allocating a death to a particular cause could be complicated where COVID-19 is involved and there are 2.7 pre-existing conditions. One thing that we do not understand is how COVID-19 can cause many deaths (8,758 COVID mentioned w/e 17<sup>th</sup> April), but at the same time the deaths from respiratory illnesses in only marginally higher in 2020 compared to 2019?

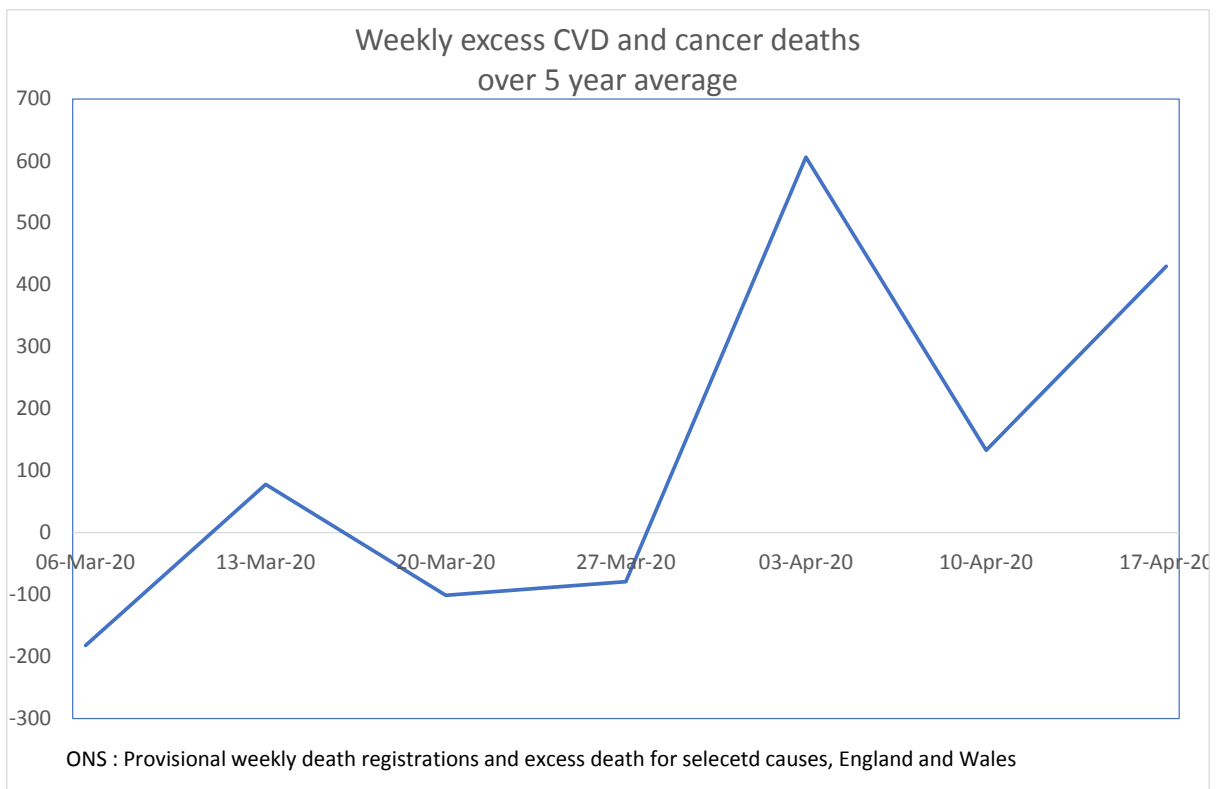


### Excess deaths and closing comments

In addition to COVID related deaths, ONS is disclosing quite significant excess deaths not due to COVID-19 (total excess deaths over 5-year average less deaths due to COVID-19). Press analysis that attributes all excess deaths to COVID effectively ignores the red bars below:



ONS is now disclosing some data on what the red bars actually comprise and has very recently started producing data on excess deaths for cardiovascular disease (CVD) and cancer. Both of these categories have increased noticeably above their 5-year averages since the week beginning 3<sup>rd</sup> April 2020. This would be in line with comments from BHF and cancer specialists that patients are not receiving the pre-COVID level of treatment.



We hope that this provides some colour to ONS weekly death statistics, we do not have medical training and are always happy to hear from specialists in the event that we have misunderstood anything in the above analysis.

[www.thinkingslow.org](http://www.thinkingslow.org)

@ThinkingSlow1