Weekly All-Cause Mortality Surveillance

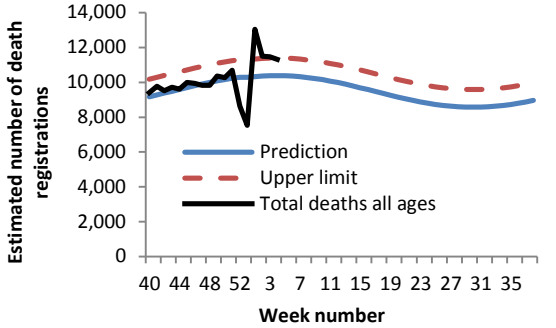
11 February 2016 – Week 06 report (up to week 05 data)

Up to week 05 2016 in England, excess mortality by date of death was seen in <5 year olds and 5-14 year olds in week 51 and in 15-64 year olds in weeks 52 & 53 with the EuroMoMo algorithm. In the devolved administrations, significant excess was seen in Northern Ireland (15-64 year olds) and Scotland (0-4 year olds) in week 05. No excess was seen in Wales.

Excess overall all-cause mortality, England and Wales

-In week 04 2016, an estimated 11,317 all-cause deaths were registered in England and Wales (source: Office for National Statistics). This is a slight decrease compared to the 11,473 estimated death registrations in week 03 2015, and is above the 95% upper limit of expected death registrations for the time of year as calculated by PHE (Figure 1). The sharp drop in the number of deaths in week 53 corresponds to a week where there were bank holidays and fewer days when deaths were registered. Therefore this drop is likely to be artificial.

Figure 1: Observed & predicted all-cause death registrations, E&W



Excess all-cause mortality in subpopulations, UK

- Up to week 05 2016 in England, excess mortality by date of death above the upper 2 z-score threshold was seen in <5 years olds and 5-14 year olds in week 51 and in 15-64 year olds in weeks 52 and 53 after correcting ONS disaggregate data for reporting delay with the standardised EuroMoMo algorithm (Figure 2, Table 1). No significant excess was seen in other age groups. This data is provisional due to the time delay in registration; numbers may vary from week to week.

- In the devolved administrations, in week 04 2016, excess mortality above the threshold was seen in Northern Ireland (15-64 year olds) and Scotland (0-4 year olds). No significant excess mortality was seen in Wales (Table 2).

Table 1: Excess mortality by age group,England*

Age group (years)	Excess detected in week 05 2016?	Weeks with excess in 2015/16
<5	×	51
5-14	×	51
15-64	×	52,53
65+	×	NA

** Excess mortality is calculated as the observed minus the expected number of deaths in weeks above threshold*

Figure 2: Excess mortality in 65+ year olds by week of death, EuroMOMO, England

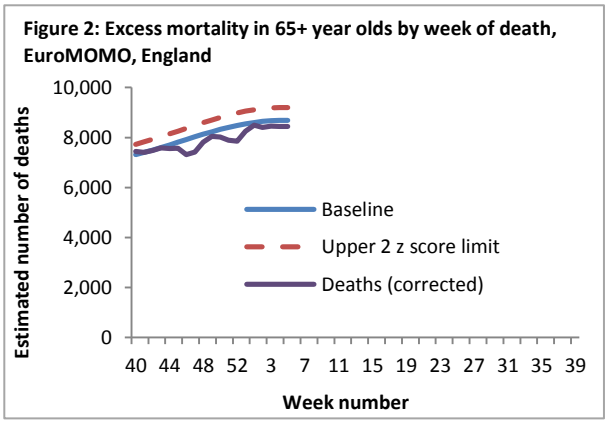


Table 2: Excess mortality by UK country*

Country	Excess detected in week 05 2016?	Weeks with excess in 2015/16
England	×	51,52,53
Wales	×	53,01
Scotland	✓	48,02,04,05
Northern Ireland	✓	49,52-53,02-05

** Excess mortality is calculated as the observed minus the expected number of deaths in weeks above threshold*
NB. Separate total and age-specific models are run for England which may lead to discrepancies between Tables 1 + 2

Produced by the Respiratory Diseases Department, Public Health England.

- Seasonal mortality is seen each year in England and Wales, with a higher number of deaths in winter months compared to the summer. Additionally, peaks of mortality above this expected higher level typically occur in winter, most commonly the result of factors such as cold snaps and increased circulation of respiratory viruses, in particular influenza.
- RDD's weekly mortality surveillance aims to detect and report acute significant weekly excess mortality above normal seasonal levels in a timely fashion. Excess mortality is defined as a significant number of deaths reported over that expected for a given point in the year, allowing for weekly variation in the number of deaths. This triggers further investigation of spikes and informs any public health responses.
- The aim is not to assess general mortality trends or precisely estimate the excess attributable to different factors, although some end-of-winter estimates and more in-depth analyses (by age, geography etc.) are undertaken.
- Separate to the calculations presented in this report, excess winter deaths (EWD), comparing the number of deaths in the winter period compared to the non-winter period, are calculated by ONS and presented in an atlas down to local authority level.