Weekly All-Cause Mortality Surveillance

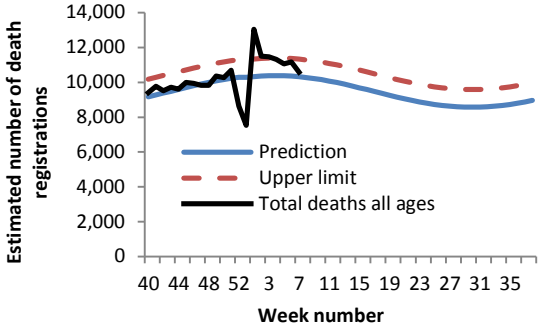
03 March 2016 – Week 09 report (up to week 08 data)

Up to week 08 2016 in England, excess mortality by date of death has been seen in 15-64 year olds in weeks 52 to 03 and weeks 05 to 08; in <5 year olds in week 51 and 05, and in 5-14 year olds in week 51 with the EuroMoMo algorithm. In the devolved administrations, no excess mortality was noted in for week 08 2016.

Excess overall all-cause mortality, England and Wales

-In week 07 2016, an estimated 10,590 all-cause deaths were registered in England and Wales (source: Office for National Statistics). This is a decrease compared to the 11,170 estimated death registrations in week 06 2016, and is below 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 08 2016 in England, excess mortality by date of death above the upper 2 z-score threshold has been seen in the 15-64 year olds from week 52 to 03 and week 05 to 08; in <5 years olds in week 51 and 05 and in 5-14 year olds in week 51 after correcting ONS disaggregate data for reporting delay with the standardised EuroMoMo algorithm (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, no significant excess mortality was seen in Wales or Scotland in week 08 2016. Due to technical changes, excess mortality data for Northern Ireland will next be reported in week 11 2016 (Table 2).

Table 1: Excess mortality by age group,England*

Age group (years)	Excess detected in week 08 2016?	Weeks with excess in 2015/16
<5	×	51
5-14	×	51
15-64	✓	52-03,05-08
65+	×	NA

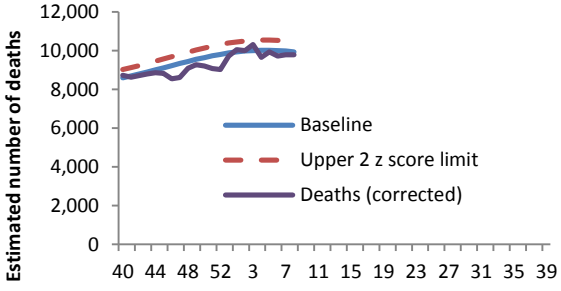
** Excess mortality is calculated as the observed minus the expected number of deaths in weeks above threshold*

Table 2: Excess mortality by UK country*

Country	Excess detected in week 08 2016?	Weeks with excess in 2015/16
England	✓	51-03,05-07
Wales	×	52-53,04-05
Scotland	×	48,02,04,07
Northern Ireland	-	45,49-50,52-02,04-06

** 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

Figure 2: Excess mortality in all ages by week of death, EuroMOMO, England



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.