



All-Cause Mortality Surveillance

21 December 2017 – Week 51 report (up to week 50 data)

In week 50 2017 in England, no statistically significant excess all-cause mortality by week of death was observed through the EuroMOMO algorithm in England. In the devolved administrations, significant excess all-cause mortality was observed in Scotland in week 50 2017 but not in Wales or Northern Ireland.

All-cause death registrations (ONS), England and Wales

- In week 49 2017, an estimated 10,781 all-cause deaths were registered in England and Wales (source: [Office for National Statistics](#)). This is an increase compared to the 10,538 estimated death registrations in week 48 2017.

Excess all-cause (EuroMOMO) mortality in subpopulations, UK

- In week 50 2017 in England, no excess mortality by week of death above the upper 2 z-score threshold was seen overall, by age group or subnationally, after correcting ONS disaggregate data for reporting delay with the standardised EuroMOMO algorithm (Figure 1). This data is provisional due to the time delay in registration; numbers may vary from week to week.

- In the devolved administrations, significant excess mortality above the threshold was observed in Scotland in week 50, but not in Wales or Northern Ireland (Table 2).

Table 1: Excess mortality by age group, England*

Age group (years)	Excess detected in week 50 2017?	Weeks with excess in 2017/18
<5	×	NA
5-14	×	NA
15-64	×	46
65+	×	NA

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

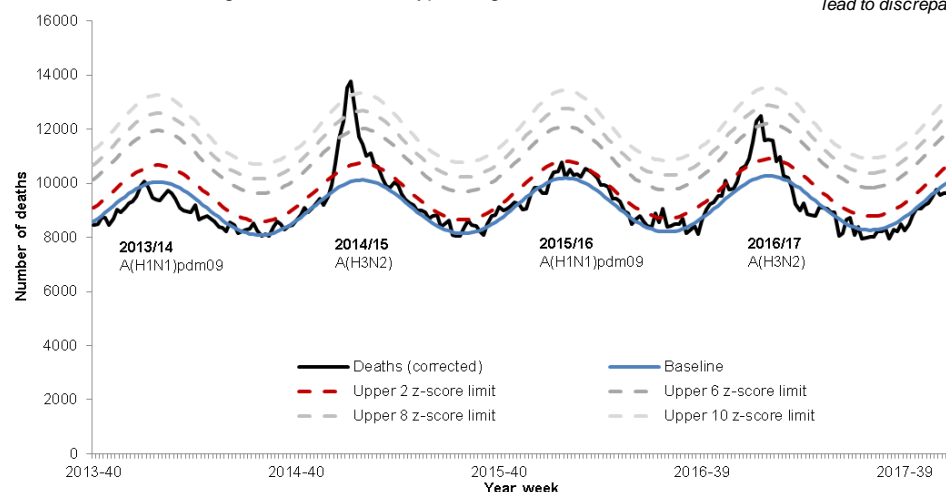
Table 2: Excess mortality by UK country, for all ages*

Country	Excess detected in week 50 2017?	Weeks with excess in 2017/18
England	×	NA
Wales	×	NA
Scotland	✓	41,49,50
Northern Ireland	×	NA

* 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 1: Weekly observed and expected number of all-age all-cause deaths, with the dominant circulating strain influenza A type, England, 2013 to 2017



Produced by the Respiratory Diseases Department (RDD), 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.