All-Cause Mortality Surveillance

18 April 2019 – Week 16 report (up to week 15 data)

In week 15 2019, no statistically significant excess all-cause mortality by week of death was observed overall and by age group in England, through the EuroMOMO algorithm. In the devolved administrations, no statistically significant excess all-cause mortality for all ages was observed in Wales and Northern Ireland in week 15 2019 and in Scotland in week 13 2019.

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

- In week 14 2019, an estimated 10,126 all-cause deaths were registered in England and Wales (source: Office for National Statistics). This is a decrease compared to the 9,867 estimated death registrations in week 13 2019.

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

- In week 15 2019 in England, no statistically significant excess mortality by week of death above the upper 2 z-score threshold was seen overall, by age group and subnationally (all ages), 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, no statistically significant excess all-cause mortality for all ages was observed in Wales and Northern Ireland in week 15 2019 and in Scotland in week 13 2019 (Table 2).

Figure 1: Weekly observed and expected number of all-cause deaths in all ages, with the dominant circulating influenza A subtype, England, 2014 to week 15 2019
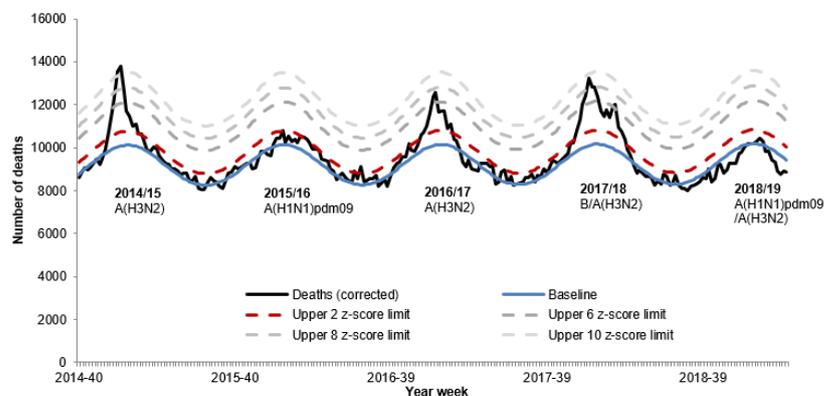
Note: Delays in receiving all registered deaths from April 2018, following changes in IT systems at ONS, may result in some delays in the model to adjust for most recent deaths.

Table 1: Excess mortality by age group, England*

Age group (years)	Excess detected in week 15 2019?	Weeks with excess in 2018/19
<5	×	NA
5-14	×	45; 3
15-64	×	NA
65+	×	NA

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

* NA refers to no excess seen

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

Country	Excess detected in week 15 2019?	Weeks with excess in 2018/19
England	×	NA
Wales	×	NA
Northern Ireland	×	6;11
Country	Excess detected in week 13 2019?	Weeks with excess in 2018/19
Scotland	×	52-2

* 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

* NA refers to no excess seen

Produced by the Immunisation & Countermeasures Division, National Infection Service, 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 and in summer occasionally as a result of heat-waves.
- Immunisation & countermeasures division'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.