



Public Health
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To: John Ashton, President, Faculty of Public Health
Janet Atherton, President, Association of Directors of Public Health
Shirley Cramer, Chief Executive, Royal Society of Public Health
Bryan Stoten, Chair, UK Public Health Register
Angela Mawle, Chief Executive, UK Public Health Association

Dear Colleagues,

Public Health England's role in the publication and analysis of mortality data

Public Health England (PHE) is publishing today an end of season review of excess winter mortality for 2012/13.

You may have seen recent media reports about a review of similar data by a PHE analyst. In light of this I thought it would be helpful to provide some extra background and further information alongside this latest report.

The Health Protection Agency (HPA), a forebear of PHE, has published weekly mortality surveillance reports for many years. On the formation of PHE in April, this role has been continued within the Respiratory Diseases Department of PHE based at Colindale. Short term trends in mortality are a very useful indicator of the impact of weather conditions, influenza and other serious respiratory diseases. Similar data and methods are used by public health organisations worldwide for surveillance purposes, but they need careful statistical analysis to provide reliable results.

The PHE Respiratory Diseases Department uses statistical methods developed and adopted internationally, for example by other European countries in the [EuroMOMO](#) network and reported by the [European Centre for Disease Prevention and Control \(ECDC\)](#). This approach compares numbers of deaths seen each week with expected numbers for that week based on data from previous years. It therefore takes account of underlying seasonal variation in deaths.

Last month, an analyst, who continued a piece of work that was part of their previous role, circulated the 'Provisional estimates of weekly and monthly deaths report'. The analysis in this report used a different approach developed by the analyst and had not been peer-reviewed. The report had been circulated to a number of Directors of Public Health and others with an interest in the topic, including journalists.

There are in fact many methods of analysing short term trends in deaths depending on the particular question being addressed. For example, the Office for National Statistics (ONS) calculates the number of excess winter deaths once a year by comparing the number of deaths seen in the winter period against that in the non-winter period. This approach does not allow for seasonality and therefore a much larger apparent excess is reported than with PHE's surveillance method.

After reviewing the analyst's circulated report within PHE, it was clear that there were potential methodological weaknesses with the approach. For example, use of calendar years is potentially misleading because flu deaths can peak before or after the beginning of the year. It was also apparent that the scope of the analysis did not add anything to that already being carried out elsewhere in PHE and used fewer previous years' data to interpret trends. The analyst was therefore asked to stop circulating the reports.

The attached report provides a very comprehensive review of weekly mortality trends in 2012/13. There have been more deaths than expected but the explanation would seem to be a combination of circulating influenza and cold weather. Many of these deaths are preventable and these data illustrate the need to work harder to protect vulnerable people from both flu and extremes of weather. The number of excess deaths this year is greater than in the past two years but is by no means exceptional when compared to the last 12 years (see Figure 2 of the attached report).

We have also decided to publish the mortality data separately from the flu reports in the future so they are more readily accessible to a wider audience, although they will continue to be an important component of the flu reports as well.

I would be pleased to provide any further information about this topic.

Yours sincerely,



Professor John Newton
Chief Knowledge Officer, Public Health England

c.c. Sir Bruce Keogh, NHS Medical Director for England
Professor Dame Sally Davies, Chief Medical Officer
Felicity Harvey, Department of Health
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