

Will there be a winter crisis in the NHS in 2015/16?

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Further articles in this series can be found at <http://www.hcaf.biz/emergencyadmissions.html>

The Department of Health seems to have gone into crisis mode and cancelled weekly reporting of Accident and Emergency (A&E) statistics during the winter of 2015/16, presumably to avoid media attention and political embarrassment.

However is this political maneuverer absolutely necessary?

Figure 1: Running 12 month average of NHS staff sickness absence (England)

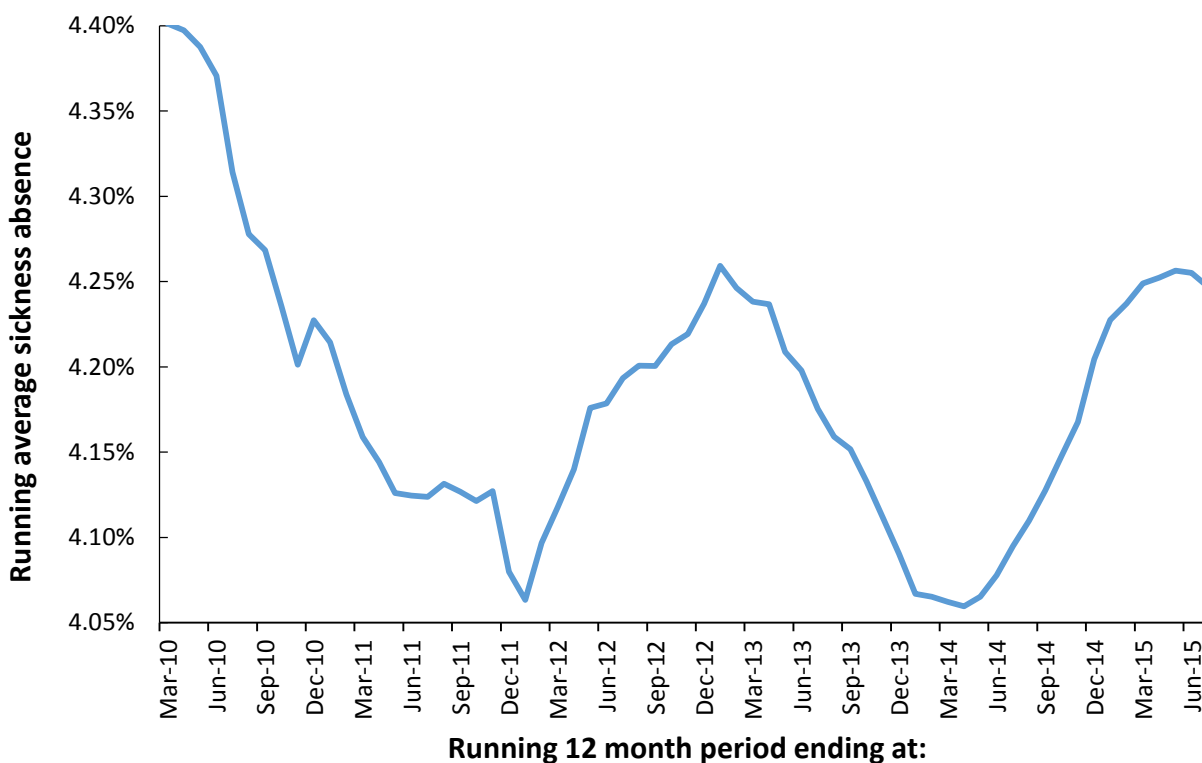
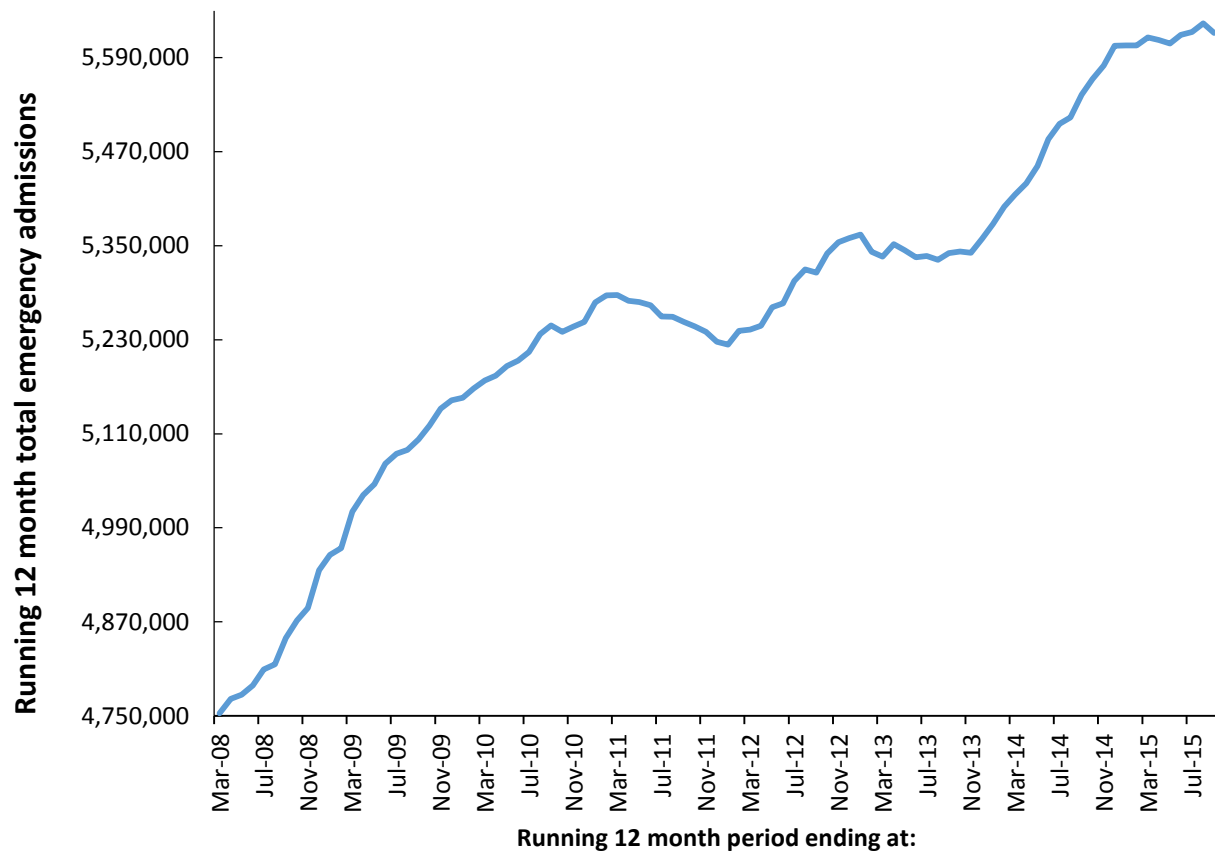


Figure 1 shows a running 12 month average of NHS sickness absence rates. Data is from the Health and Social Care Information Centre (HSCIC) website. Saw-tooth behaviour is clearly evident which has nothing to do with seasonality. In a running 12 month average seasonality is effectively removed, and should in theory show a straight line with no saw-tooth features.

Over the past 7 years I have been steadily publishing evidence for outbreaks of a previously unrecognised infectious agent, which appears to act via immune manipulation. The common herpes virus, cytomegalovirus (CMV) is a likely candidate but this remains to be proven.

Figure 2: Running 12 month total emergency admissions in England



However, in a running 12 month chart, a sudden infectious outbreak leading to consistently higher levels of illness in the following 12 months, i.e. a step-change in population health, will create the characteristic saw-tooth features seen in the running chart shown in Fig. 1. Onset of each outbreak is at the start of the ramp upward while cessation occurs at the peak. The impact on overall health is determined by the difference between the peak minus the level at the foot of the ramp. The situation is more complex than Fig. 1 appears to convey since the national picture is made up from very small area spread of the agent over a number of months, see

<http://www.oatext.com/Small-area-spread-and-step-like-changes-in-emergency-medical-admissions-in-response-to-an-apparently-new-type-of-infectious-event.php>

Hence, three events affecting human health can be discerned commencing around Mar-09 (inferred from the Mar-10 peak), then Feb-12 and Apr-14.

To continue the theme of effects against human health, Fig. 2 shows a running 12 month total of emergency admissions in England over a slightly longer time period. In this Figure there is an additional outbreak commencing in 2008, which due to slower spatial spread for both the 2008 and 2010 outbreaks, merges into the 2010 outbreak. This is partly a limitation of the running 12 month method, since an outbreak commencing in the downward part of the inverted “V” of the saw-tooth pattern (when the agent is absent but the higher activity is diluting out of the running total) leads to the appearance of a merged trend. However the dates for the onset of increased emergency admissions coincide with the dates for the onset of higher sickness absence. A common biological agent can be inferred.

Also note that growth in emergency admissions is largely driven by the step-changes arising from the infectious outbreaks rather than by demographic growth, i.e. the ageing population.

So what do these two charts tell us about the likelihood of a winter crisis?

Firstly, barring another outbreak of the agent between now and winter – highly unlikely given the roughly 2 year frequency of the outbreaks since 2000 (when influenza activity dropped to a 1000 year minimum), staff sickness absence should be at a minimum.

The situation with emergency admissions is more problematic. During the winter of 2014/15 there was an increase in respiratory admissions (and deaths), probably enhanced by vaccination of the population with the incorrect influenza vaccine during 2014.

See: <http://www.ons.gov.uk/ons/rel/subnational-health2/excess-winter-mortality-in-england-and-wales/2014-15--provisional--and-2013-14--final-/index.html>

This event has distorted the running 12 month total such that the onset of the downward part of the inverted “V” has been delayed. However, in the aftermath of the 2014 outbreak (as with all other outbreaks) emergency admissions are now at record high levels, and it is this factor which may well precipitate a winter crisis.

Due a policy to build smaller hospitals, the NHS is critically short of beds and operates at internationally high (and dangerous) levels of bed occupancy, hence, there is no surge capacity left in the system.

See: <http://www.hcaf.biz/hospitalbeds.html>

This will inevitably lead to queues of patients in the emergency department, and to knock on queues of ambulances outside of A&E.

Add all of this to huge problems finding enough staff to man both the emergency department and the wards and a somewhat fraught winter is highly likely. Had there been another outbreak of the mystery agent late in this year, things could have been far worse than the likely outcome.

In conclusion, why government agencies are unable to acknowledge the existence of an unknown infectious agent remains a mystery – although governments rarely like to be seen to have failed to spot the obvious (especially if the obvious happens to be a very large infectious event). A difficult winter lies ahead, partly due to poor planning by government agencies responsible for nurse training, and a policy to build smaller hospitals. However the far bigger issue is being ignored – why the big step-increases in admissions?