



Mortality rates and England's winter 2014-15 A&E performance decline

This document has been produced by 2020 Delivery Ltd based on publicly available data from NHS England, Health and Social Care Information Centre, and the Office for National Statistics.

28 January 2015

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A&E performance decline

Executive summary

- A&E units across England have struggled to meet the 95% four-hour target this winter owing to increased numbers of patients
- While many analyses have highlighted the role of reduced access to primary and community care, an important factor has largely been overlooked, namely the previous winter's mortality rates
- Winter 2013-14 witnessed the lowest levels of winter mortality since 1990, when records began
- As hospitals undertake activity planning on a year-by-year basis, planning for 2014-15 was based on the unusually mild winter of 2013-14 (2.5 degrees below the five-year average)
- When winter 2014-15 was colder than the previous year and mortality levels increased, hospitals – already operating at high capacity levels as a result of financial pressures, and planning for a mild winter – could not cope, and A&E performance plummeted
- Paying close attention to absolute, as opposed to standardised (which are already monitored), mortality levels could help hospitals predict when difficult winters are likely to be forthcoming, as well as recognising that previous year activity levels are not necessarily a good indicator of future ones.

Introduction

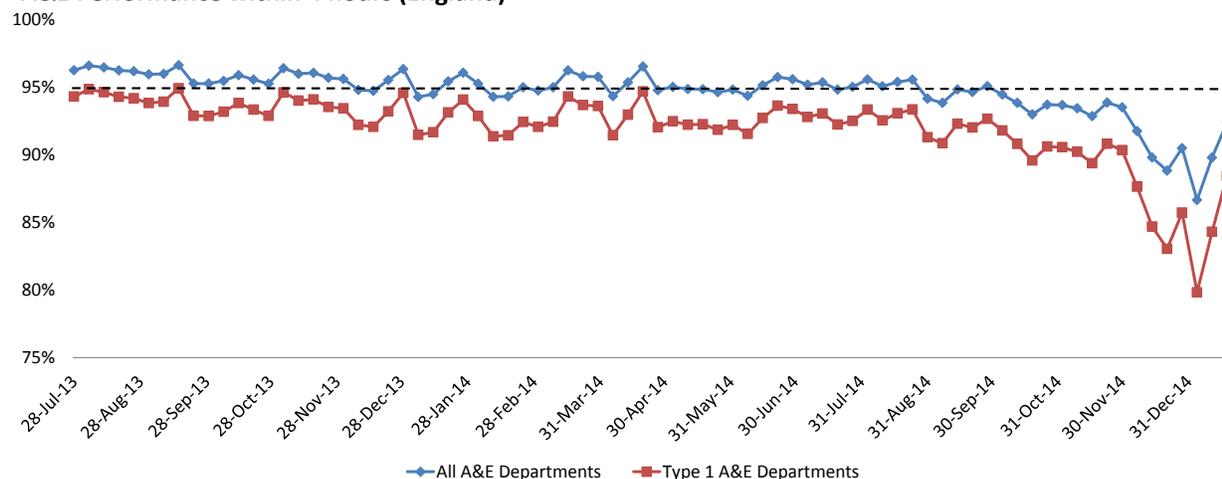
Accident and Emergency departments (A&Es) across England have struggled to meet the four-hour target¹ this winter (Figure 1), following a large increase in the number of people arriving at A&E compared to last year. This increased activity is due in part to reduced access to primary and community care. However, analyses to date have largely overlooked an additional and important factor: the fact that last year's winter was unusually mild.

Hospitals typically undertake planning on a year-by-year basis, and in the context of ever-increasing budgetary pressures, last year's winter was used as the basis for planning in 2014. As a result, the NHS and wider care system was not prepared for the much higher levels of demand caused by a harsher winter combined with an increased frail elderly population as a result of last year's mild one.

This article considers how paying greater attention to underlying mortality trends, rather than planning on the basis of the previous year, could allow the NHS to prepare more effectively for difficult winters.

FIGURE 1²

A&E Performance within 4 hours (England)



Underlying mortality rates vary, and influence the demand for emergency services

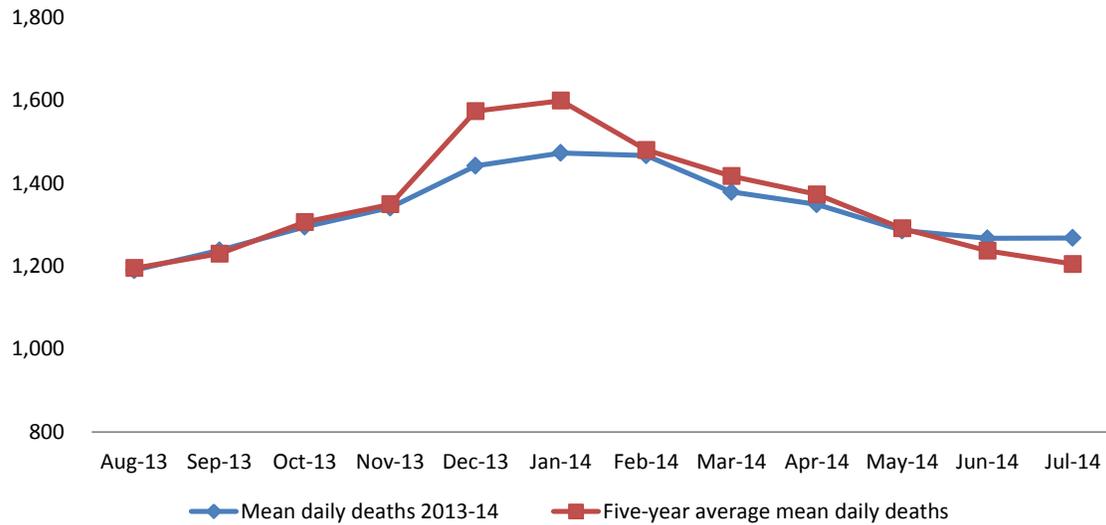
Year-to-year fluctuations in mortality and activity are normal for the NHS. In winter 2013-14, England experienced the lowest levels of winter mortality since records began in 1990-91. Warmer temperatures in December and January (around 2.5 degrees above the previous five years) contributed to a major reduction in winter mortality, with around 8,000 fewer deaths during those two months than in the same time period on average over the previous five years (see Figure 2).

¹ The NHS has a standard contractual requirement applying to all NHS hospitals, which states that 95% of patients in the A&E department must be seen and discharged within four hours of arrival.

² Type 1 A&E departments offer a consultant-led 24 hour service with full resuscitation facilities and designated accommodation for the reception of A&E patients. Type 1 A&Es typically receive the most acute patients.

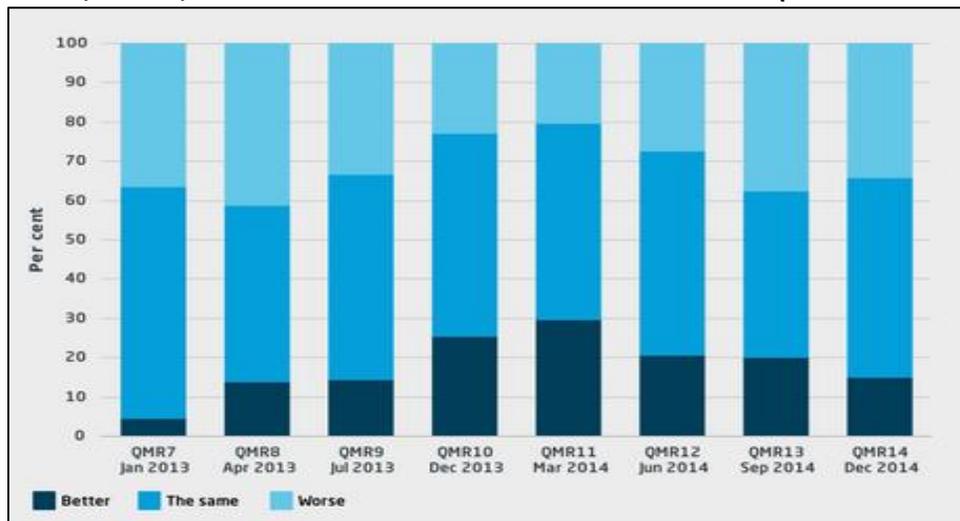
FIGURE 2

Mean daily deaths by month, 2013/14 compared to 5 year average



The reductions in mortality led NHS leaders to be positive about the performance of the NHS at this time,³ with a quarterly survey by the King’s Fund finding that both Commissioner and Trust leads had higher confidence in NHS patient care in December 2013 and March 2014 than in any of the three quarters before or after (see Figure 3).

FIGURE 3: TRENDS: THINKING ABOUT THE NHS IN YOUR LOCAL AREA, IN THE PAST 12 MONTHS DO YOU THINK IT HAS GOT BETTER, WORSE, OR STAYED THE SAME IN TERMS OF PATIENT CARE? (KING’S FUND: JAN 2015)

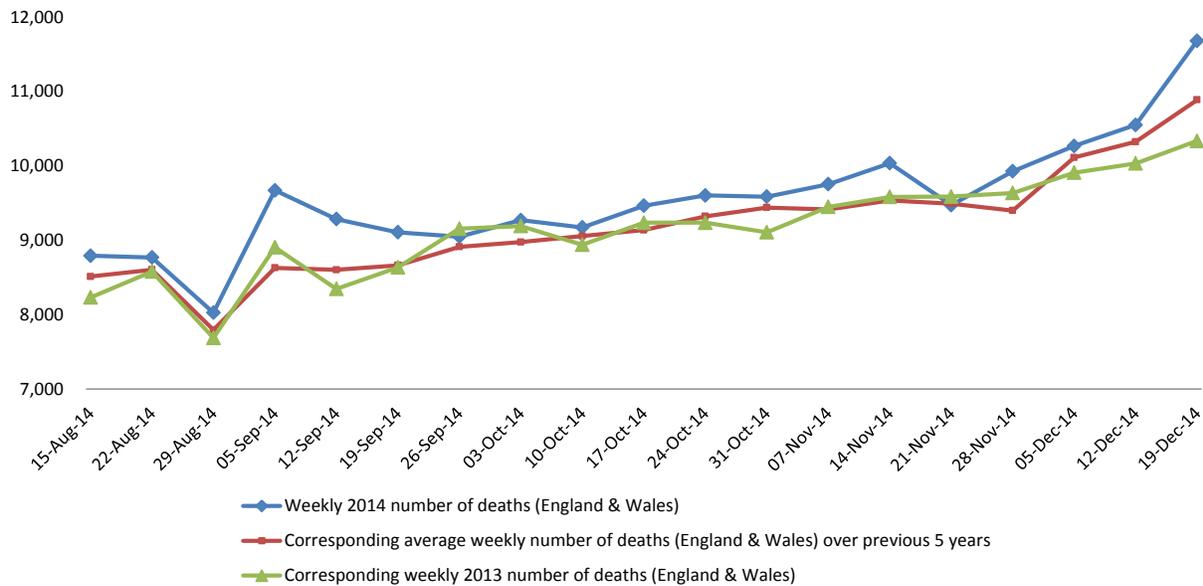


³ Based on King’s Fund Quarterly Monitoring Review, Jan 2015, accessed January 21st 2015 at <http://qmr.kingsfund.org.uk/2015/14/>. Figure 3 shows that confidence in patient care by NHS Finance Directors was highest during December 2013 and March 2014, as compared to all other quarters during 2013 and 2014.

However, rather than representing a new downward trend in mortality, the 8,000 or so deaths avoided last winter meant a higher number of frail elderly patients in the system by the time this winter arrived.⁴ In fact, since August 2014, the number of weekly deaths has been higher than the average over the same months in the previous five years, as shown by Figure 4.

FIGURE 4

Weekly deaths (England and Wales) from August 2014, as compared to 2013 and average corresponding week over the previous 5 years



The mild winter and low mortality rates in 2013-14 also meant low A&E activity growth compared to previous years – Type 1 A&E attendances were nearly flat, while emergency admissions via Type 1 A&Es saw relatively low growth at around 2% between 2012/13 and 2013/14 (see Figure 5).

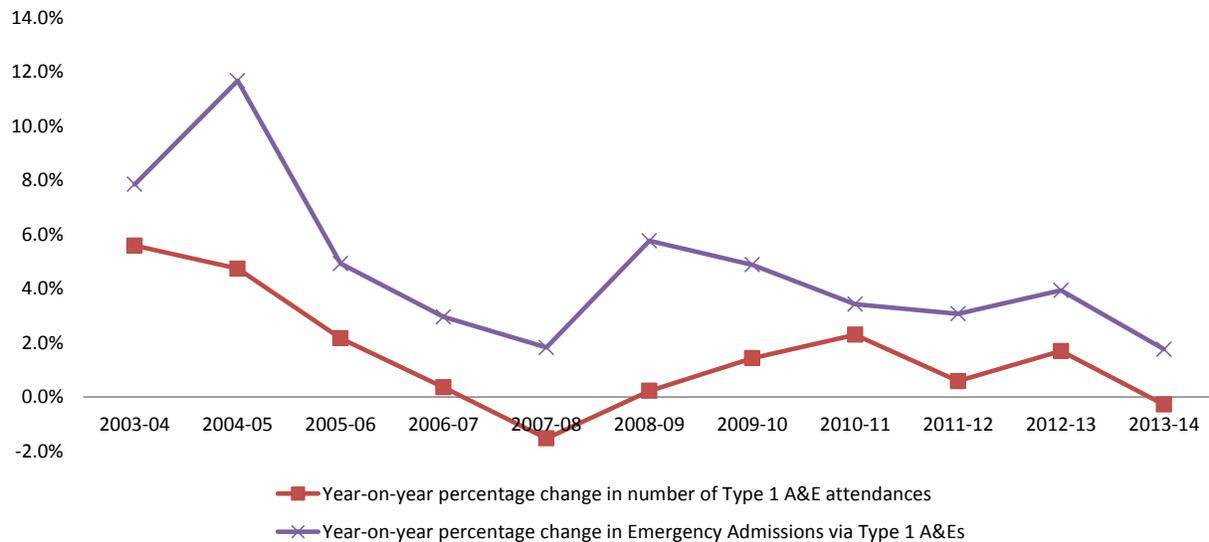
As mortality rates began to increase from June 2014, A&E activity followed suit. Attendances in A&E were 6% higher in November and December 2014 compared to the previous year, and emergency admissions were 5% higher.⁵

The impact of this increased activity was compounded by the hospital activity planning approach. Hospitals plan their operations on a year-by-year basis by looking back at the previous year’s performance: the most common methodology is to multiply the first six months of the previous year’s activity levels by two, and make a few seasonal adjustments. In addition, all hospitals must factor in the 4% year-on-year cuts required to meet government efficiency requirements. When activity levels rose this winter, the system simply couldn’t cope, as hospital trusts had been lulled into a false confidence by planning on the basis of 2013-14’s unusually mild winter.

⁴ ONS deaths data includes a breakdown of deaths by age category for 2011-12 to 2013-14, and shows that while deaths among the under 65s had relatively little variation over the three years (between 2,080 and 2,310 deaths), deaths among those aged 65 and over varied much more dramatically. For example, there were 17,140 deaths among the 85 and over group in 2012-13, compared to 9,100 in 2013-14

⁵ NHS England Data, analysis by 2020 Delivery

FIGURE 5
Year-on-year percentage change in Type 1 A&E attendances and Emergency Admissions via Type 1 A&Es



Patients cannot access other services, and hospitals are getting fuller

This winter's increase in demand for A&E services is likely to be caused by a number of factors, in addition to underlying mortality rates and climactic issues. A decline in the availability and capacity of alternative and preventative services is also critical, as A&E ends up acting as a safety net for patients unable to access other services. This means that hospitals get fuller, and struggle to cope.

Primary care is one key service where capacity and availability appear to be in decline. For example, recent patient surveys indicate that the percentage of GP patients unable to get an appointment has been gradually increasing, and some patients will choose to go straight to A&E rather than waiting for an appointment at a later or less convenient date. This is likely to have contributed to 1.5% of the activity growth in A&E over the past year.⁶

Meanwhile, the number of people in receipt of adult social care services in 2014 was 5% lower in than the previous year, and 29% lower than in 2009, despite the efforts made by local authorities to protect front line services from budget cuts over the period 2010-2014.⁷ This has a clear effect on hospitals; for example, in the year to November 2014, the number of unnecessarily occupied NHS beds where adult social care were responsible for a delayed transfer of care increased by 25% to 1,200.⁸ The availability of community NHS resource has also reduced, with the number of beds occupied by patients waiting for community NHS support increasing by 17%, to 3,100, over the same period.⁹

⁶ GP patient survey, Royal College of GPs, NHS England Data; analysis by 2020 Delivery

⁷ Health & Social Care Information Centre, Community Care Statistics, England, 2013-14; analysis by 2020 Delivery

⁸ NHS data on Delayed Transfers of Care; analysis by 2020 Delivery

⁹ NHS England Data on Delayed Transfers of Care; analysis by 2020 Delivery

The result of this additional pressure on the system has been an increase in hospital occupancy, with average occupancy in November and December 2014/15 at 94.1%, up from 92.6% in 2013/14.¹⁰ While this sounds like a small shift, it represents a reduction of spare capacity in the system of about one quarter. This means that finding beds for emergency admissions is becoming ever more challenging, diverting the time and effort of clinical staff away from patients.

Taking mortality rates and trends into account should help future resource planning

The usefulness of mortality rates as a determinant of demand for health services appears currently to be largely overlooked. While rates vary year-on-year due to a number of factors, they can still provide useful intelligence in resource planning, especially by referring to long-run trends and previous years' rates.

For example, a year of low mortality rates and demand is likely to be followed by a year of high demand for emergency services, due to an increased frail elderly population. In that sense, the winter of 2014-15 could be seen as a predictable result of the milder winter of 2013-14. In any case, planning on the basis of only one previous year is unlikely to be robust compared to planning which takes into consideration longer term trends.

Understanding and making use of the fact that year-to-year variability in underlying mortality, and therefore likely activity levels, exists will support an approach to resource planning which builds resilience and allows the NHS to have a buffer for particularly difficult years. In addition, the regular monitoring of absolute mortality statistics could be used as an early warning indicator, enabling emergency planning to take place.

Notes:

1. All data sourced in text from publicly available sources, unless stated otherwise
2. Whilst every effort has been made to check the analysis, please feed back any errors or misinterpretations to 2020 Delivery at enquiries@2020delivery.com
3. 2020 Delivery is committed to improving public services through management consultancy and capability building. For further details of our work, please see our website: www.2020delivery.com

¹⁰ NHS England Data; analysis by 2020 Delivery