

A&E departments under pressure - which ones and why?

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Dramatic pictures of ambulances lined up outside Accident & Emergency (A&E) departments in England's NHS are becoming common. News stories often tell of patients waiting in ambulances or in corridors on trolleys, and of long waits to be seen by a doctor. These media stories obscure an important fact – not all A&E departments are under the same pressure.

Our research aimed to understand how A&E attendance varies across different areas of the country and the reasons for this. We looked at data on nearly 14 million A&E attendances for 2018-19 – prior to the COVID-19 pandemic – and focused on how concentrated those attendances were in different local areas. The differences appear quite dramatic. Looking at the patients from different GP practices, we see that whilst on average around 1 patient in 4 (26%) attended A&E in a year, there were some practices where this attendance rate was as low as 2%. On the other hand, there were others where it exceeded 100% - implying that some GP practice areas have patients that make multiple visits on average to A&E in a year.

If high-attendance GP practices are located in similar local areas then the hospitals in those areas are going to be under more pressure, and that indeed turns out to be the case. Viewed across different local areas, rates of attendance varied from 4% to over 40%.

One explanation for this variation is that there are very sick people in some areas – so they have to use A&E more. To examine this, we used regression analysis to account for a broad range of measures of people’s health. We included well-known factors that are associated with health – such as age, ethnicity, social and economic deprivation – as well as clinical measures of health – such as obesity, dementia, diabetes, mental health and heart disease. Whilst these measures explain some of the variation in A&E attendance rates, a lot remains; we find that the range of variation only reduces to between 5-35% by accounting for all these factors.

Our approach means we can identify areas that have high or low A&E attendance even after allowing for how generally healthy the population is. This can inform attempts to reduce A&E pressures. Our research provides decision makers with a guide to where the problem is the greatest. It also highlights examples of areas with unexpectedly low A&E attendance rates which might serve as benchmarks for what can be achieved more widely.

[Read the full paper, funding sources and disclaimer in Health Policy.](#)

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