The A&E crisis: what’s really driving poor performance?

February 2023

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Introduction

Accident and Emergency Departments are in crisis. According to the NHS’s own targets, at least 95 per cent of patients should be admitted, discharged, or sent home within four hours of arriving at A&E. In December, less than half of all patients at major hospital A&Es met that target.¹ Before the pandemic, waits of 12 hours after a decision had been made to admit a patient to a hospital bed were virtually unheard of – in December, more than 50,000 patients found themselves in that position.² Images of ambulances backed up outside of hospitals, patients on trolleys in hospital corridors, and burnt-out staff have become familiar sights.

Our current crisis is particularly severe, but it has been a long time in the making. With the exception of the height of the pandemic (when many people stayed away from health services), performance against the four-hour target has been declining for a decade. There has however, been a particularly pronounced collapse in performance in the past two years.

Figure 1: Performance against the 4-hour target since December 2010


Yet while there is broad consensus – and hard evidence – that our emergency care is in crisis, the reasons for this are less clear cut. Solving any problem requires a robust understanding of its drivers. It is therefore vital to dig beneath the headlines and investigate the factors underpinning this crisis.

² Ibid.
This short briefing paper seeks to understand what is actually happening in our emergency departments and, using publicly available data, challenges some of the arguments frequently heard about the A&E crisis. We identify areas for further investigation which we believe could be key to stabilising the system.³

³ Data in this paper relates to Type 1 A&E departments – these are major departments which provide a consultant led 24-hour service with full facilities for resuscitating patients.
1. A&E is not the problem

1.1 Are too many people showing up at A&E?

One commonly heard explanation for our declining A&E performance is that too many people are showing up who shouldn’t be there – those who are attending because they can’t get care elsewhere and those with minor issues who expect to be seen by emergency doctors but really shouldn’t be.

It’s certainly true that A&E attendances have grown in the last decade – by 24 per cent – as can be seen in Figure 2. A&E attendances are also at a higher level than they were immediately prior to the pandemic – 5 per cent more people presented at A&E in December 2022 than in December 2019. This may be due to the well documented challenges accessing primary care, the return of patients who did not seek care during the pandemic, and the effect of long waits for elective treatment on patients’ conditions.

Figure 2: A&E attendances since December 2010


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5 Arj Singh and Paul Gallagher, ‘Nearly a Quarter of Patients Have Gone to A&E after Failing to Access a GP, Poll Suggests’, I, 8 July 2023.
6 George Stoye, Max Warner, and Ben Zaranko, ‘Where Are All the Missing Hospital Patients?’, Institute for Fiscal Studies, 7 December 2021.
Increased attendance has occurred at the same time as A&E performance has declined. In Figure 3, every green dot represents a month of A&E attendances and performance since December 2010. We can see a moderate correlation between attendance numbers and performance – i.e. months where more people attended A&E are associated with declining performance against the 4-hour target.

Figure 3: Relationship between A&E performance and A&E attendances since December 2010


However, there are good reasons to think that increased attendance does not cause poor performance. If we dig deeper and look at the level of attendance at individual hospitals, we can see that poorer performance is not associated with higher attendance numbers. At a provider level, more patients showing up does not lead to greater delays in A&E. This can be seen in Figure 4, where each green dot represents an individual NHS trust's attendance levels and performance relative to the 4-hour target.
1.2 Do those people attending have more complex needs?

If it is not then about the number of people attending A&E, is it the type of people? Some argue that plummeting performance is being caused by more complicated, sicker patients showing up at emergency departments. That would be a plausible hypothesis: those coming in with difficult to treat conditions require more time and effort by staff, slowing the movement of patients out of A&E. Furthermore, the effects that the pandemic has had on waitlists for routine procedures may mean more people are showing up at A&E due to their conditions deteriorating while they await care.\(^7\)

The limitations of the publicly available data make it hard to assess this as a driver – recording of the conditions, and severity of those conditions, suffered by people presenting at A&E has been historically inconsistent, making tracking over time impossible.\(^8\) However, one useful proxy is the percentage of patients attending A&E who are then admitted to hospital (the so-called ‘Conversion Rate’). Decisions to admit are only taken when a patient is in need of more specialist care than is available in the A&E department, so a higher percentage of patients being admitted could indicate that conditions are more severe.

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However, again, the data doesn’t support this as a key driver of poor performance. Whilst over the last decade there has indeed been a steady increase in the number of patients admitted from A&E, as Figure 5 shows, those numbers have dropped off in the aftermath of the pandemic. There has not been a disproportionately large influx of patients who require admission in the past couple of years, when performance has dropped off a cliff, indicating that this is not the root of the current crisis.

Figure 5: Percentage of patients admitted from A&E since December 2010


1.3 Is A&E understaffed?

If demand isn’t the key issue, the explanation must surely lie in the supply side. A common refrain is that the problems stem from NHS workforce shortages, and in this specific case, we don’t have enough staff in A&E. This appears to be backed-up by stories about A&E staff run off their feet and calls by representative bodies to boost the number of doctors and nurses working in emergency departments.9 Is the solution to the crisis, therefore, more staff deployed to emergency departments?

Again, the data does not support this as a cause of today’s performance crisis. Since 2010, emergency medicine has been the fastest growing clinical specialty in the NHS.10 In that time, there’s been a near doubling in the number of (full time equivalent) emergency medicine doctors, from 4,799 in 2010 to 9,172 in 2022.11 And as Figure 6

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shows, the number of emergency medicine doctors has long outstripped the growth in A&E attendances.

**Figure 6: Change in A&E attendances and emergency medicine doctors (FTE) since December 2010**

![Graph showing change in A&E attendances and emergency medicine doctors since December 2010.](image)


Figure 7 shows a similar story in the case of emergency admissions. Staff numbers largely tracked the growth in emergency admissions in the ten years before the pandemic. Afterwards, staff growth ran well ahead of emergency admissions (which are below their pre-pandemic level).
The supply of ambulance staff also meets and then exceeds increased demand in recent years. Figure 8 shows the percentage change in the number of ambulance staff since April 2018 alongside the percentage change in the level of incidents they responded to. Though ambulance staff are clearly under immense pressure, they are dealing with less demand than before the pandemic.
This suggests that a lack of A&E staff, at least A&E doctors and ambulance staff, has not caused the plunge in performance. In fact, there is a negative correlation between A&E doctors and A&E performance as shown in Figure 9, showing that increasing the number of A&E doctors has not improved performance.

**Figure 9: The relationship between A&E performance and emergency medicine doctors (FTE) since December 2010**


Nursing numbers are not broken down by hospital ward setting so it’s not clear whether the large increases in Emergency Medicine doctors and ambulance staff have been mirrored among nurses. However, as Figure 10 shows, the number of nurses working in the NHS has risen in recent years. Since the start of the pandemic (February 2020), nurse numbers have increased by 8 per cent.\(^\text{12}\)

It would be reasonable to assume at least some of the increase in nurse numbers has benefited emergency departments. This is, notably, a slower rate of increase over the same period than has been seen in ambulance staff (10.6 per cent) and emergency medicine doctors (23.3 per cent), and may therefore be worth further investigation.

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It must be noted that a higher degree of sickness absence affects total staffing numbers in urgent and emergency care. On the latest statistics (September 2022), the sickness absence rate for doctors stood at 1.77 per cent compared to 1.28 per cent in September 2019; the sickness absence rate for ambulance staff stood at 8.82 per cent compared to 5.20 per cent in September 2019; and the sickness absence rate for nurses stood at 5.44 per cent compared to 4.49 per cent in September 2019.\textsuperscript{13}

Higher levels of sickness absence, particularly among ambulance staff, are clearly cause for concern. However, given the significant increase in staff in all of these categories seen since the start of the pandemic, the number of ‘effective’ staff (those able to work) in the system remains significantly higher now than in late 2019.

\textsuperscript{13} NHS Digital, \textit{NHS Sickness Absence Rates, September 2022, 2023.}
2. Possible drivers of poor performance

If the number of people attending A&E isn’t the issue, and the number of emergency doctors and ambulance staff have increased at a faster rate than demand for these services, the explanation for our crisis must lie beyond the emergency department itself.

After being seen in A&E, patients are either discharged (sent home), transferred (moved to another hospital or health service), or admitted. If they are admitted, they require care from a medical team of doctors and nurses and a bed on a ward. A lack of capacity in either of these areas may cause a bottleneck.

2.1 Do we have enough staff elsewhere in the hospital?

Healthcare worker vacancy rates are often touted as a key driver of poor NHS performance, and a lack of staff in hospitals is often cited as a reason for the challenge of moving patients through beds (i.e. treating them efficiently).

However, it is not clear that lack of available clinical staff has been a long-term driver of poor performance. Figure 11 shows that the number of hospital doctors (excluding emergency medicine doctors) has risen by 33.7 per cent since 2010. Even since the start of the pandemic (February 2020), there has been an 11.9 per cent increase.

Figure 11: Percentage increase of HCHS doctors and nurses (excluding emergency medicine) since December 2010

Pressure on hospitals and the staff working in them is undoubtedly high, in large part due to the very high waitlists, but – as is shown in Section 2.3.2 – hospitals are the best staffed part of our health and care system.

2.2 Do we have enough hospital beds?

Bed capacity in the rest of the hospital may be a better predictor of system performance than clinician numbers. Many patients are waiting record lengths of time to move into a specialist hospital ward after a decision has been reached to admit them. Figure 12 shows the huge increase, specifically over the past two years, in the number of patients waiting more than 12 hours in A&E after a decision has been made to admit them.

Figure 12: Number of patients waiting longer than 12 hours in A&E after a decision to admit has been made (since December 2010)

![Figure 12](chart.png)


Figure 13 shows that over the last decade, the number of general and acute hospital beds has remained largely flat, whilst emergency admissions are currently almost 20 per cent higher than in 2010.
Figure 13: General and acute hospital beds and admissions since December 2010


Like many high-income health systems, the NHS has been able to keep its bed base flat because it can move patients through the system much more quickly than in the past. New treatments, surgical procedures, and processes mean that patients don't have to stay in hospital as long – the average length of stay in English hospitals has nearly halved in the last two decades\(^{14}\) and the number of surgical procedures conducted as day cases has increased markedly.\(^{15}\) It would be logical, therefore, for bed capacity to have remained stable (allowing for increased demand generated by an ageing population), or even declined.

It is true, however, that even before the pandemic English hospitals ran at a high level of bed occupancy. To ensure optimal patient flow and accommodate for fluctuations in demand, both the National Audit Office and the National Institute for Health and Care Excellence recommend that bed occupancy should not exceed 85 per cent.\(^{16}\) The UK's bed occupancy rate of 91 per cent in 2019 was higher than the level seen in many comparable health systems – for instance, Germany's bed occupancy rate was 79.1 per cent and France's was 78.9 per cent in that year.\(^{17}\)

\(^{15}\) NHS England, Provisional Accident and Emergency Quality Indicators for England, October 2022.
\(^{16}\) National Audit Office, Reducing Emergency Admissions, 2018.
\(^{17}\) OECD, Health at a Glance 2021: Hospital Beds and Occupancy, 2021.
However, it does not appear that an unusually high level of bed occupancy or lack of bed availability is at the heart of our current crisis (though it is clearly an issue for tackling the long elective waitlists). During the first wave of the pandemic, the NHS experienced a temporary drop of 10,000 available general and acute beds (a 9.4 per cent decrease), a period which also coincided with a sharp decline in admissions.\(^{18}\)

However, by Q4 of 2021-2 (January-March 2022), available bed numbers had returned to their pre-pandemic level. Though we lack data for the most recent quarters (Q3 and Q4 2022-3), bed occupancy in Q2 2022-3 was not substantially higher than it has been in the last 7 years. This can be seen in Figure 14.

**Figure 14: General and acute bed occupancy rate since December 2010**

![Graph showing bed occupancy rate from December 2010 to December 2022.](image)


This mixed picture may suggest that while high bed occupancy is generally associated with lower than optimal system performance, it does not explain the acute crisis we are experiencing at present. Addressing our bed shortage may be an area to focus on going forward – indeed government has committed to a 5,000 bed increase, backed by £1 billion of dedicated funding.\(^{19}\) However low bed numbers alone cannot explain why we now have such an acute crisis.

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2.3 Are we getting patients through the system fast enough?

Alongside considering top-line figures of bed occupancy, we should also pay attention to those patients who are spending very long periods in hospital beds. If people are spending extended periods in hospital (‘long stayers’) then the availability of beds for A&E patients requiring admission is diminished – a bottleneck is created in the flow of patients within the hospital. We know that this winter, the number of patients spending 7 or 21 days in hospital jumped significantly, as can be seen in Figures 15 and 16.

**Figures 15 and 16: Patients in hospital for longer than 7 and 21 days in current and previous winters**

![Diagram showing patients in hospital for longer than 7 and 21 days]

2.4 Why are patients staying longer?

2.4.1 Is insufficient or poor management an issue?

Long hospital stays may be driven by internal failures of coordination (failing to arrange timely treatment and move patients through the care pathway). While much of the focus in our current health debate is on the numbers of frontline clinical staff (‘more doctors and nurses!’), the data shows that in the last few years, we’ve seen a very big uptick in this category. However, we have not seen a commensurate increase in the number of managers in the system.

Hospital managers play a vital role in improving the flow of patients through beds and in coordinating discharge so that patients can return home as quickly as possible. The benefits of having more clinical staff available to care for patients will not be fully realised unless they can be deployed in the right places at the right times. And their productivity will be diminished if they are having to pick up administrative tasks that managers would normally perform.

Despite the popular myth that the NHS has too many managers, it is actually undermanaged – given the complex logistics involved in delivering healthcare, it is odd that NHS managers make up roughly 2 per cent of the workforce, compared to 9.5 per cent in the UK workforce as a whole. Figure 17 shows the percentage change of staff to managers in the NHS over the last decade.

**Figure 17: Staff to manager ratio in the NHS since December 2010**


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Challenges in management may also help explain the persistently high levels of variation in performance we see between NHS trusts. Although national level A&E performance is in stark decline, some trusts perform significantly better than others against the 4-hour target. Factors such as the hospital’s level of admissions, the inpatient care it offers, and the demographics of its local population (for example a higher degree of deprivation or an older population) may affect overall performance.

However, a high degree of ‘unwarranted’ variation also exists between trusts, as NHS England acknowledges in its recent urgent and emergency care delivery plan.\textsuperscript{21} Shortcomings in operational management may be one reason for this. Where other factors remain constant, failures to manage admissions, bed flow, and discharge appropriately can have major impacts on performance.

\subsection*{2.4.2 Is this all about the crisis in social care provision?}

Challenges discharging patients into appropriate care settings – whether at home, in a care home, or in another health facility – is the other potential driver of long stays. So-called ‘delayed transfers of care’ have long been seen as a reason for poor flow through the hospital system, and in turn, a major contributor to pressures at the front door. Data collection on delayed transfers has been inconsistent, but Figure 18 shows that the number of days patients were in hospital beds despite being fit to leave were at record levels in late 2022.

\begin{figure}[h]
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\includegraphics[width=\textwidth]{figure18.png}
\caption{Delayed bed days since December 2010}
\end{figure}


\textsuperscript{21} NHS England, \textit{Delivery Plan for Recovering Urgent and Emergency Care Services}.
Many of those patients delayed for long periods are awaiting care packages at home or places in residential care homes – and it is undeniably the case that additional investment in social care is needed. The Government’s announcement of a specific, £500 million adult social care discharge fund in September 2022\textsuperscript{22} and a further £200 million uplift in January 2023 are therefore welcome,\textsuperscript{23} though a sustainable long-term answer to social care funding is needed.

Yet while the NHS has tended to frame delayed discharges as a local authority issue to deal with, available data suggests a more complex picture. NHS England stopped publishing data recording which institution is responsible for delayed bed days in early 2020 (we would encourage them to reinstate publication of this data). But as Figure 19 shows, between 2010 until that point in 2020, the NHS itself was responsible for the majority of delayed days.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure19.png}
\caption{Organisation responsible for delayed bed days since December 2010}
\end{figure}


There is reason to think that current pressures in social care may be a more significant contributor to delayed discharges than they were in the past. While NHS employed, hospital staff numbers have increased significantly since the pandemic, this is not the case for adult social care workers. Figure 20 shows the number of filled posts in adult social care over the last decade. While numbers have increased over time, the previous year saw a 5 per cent drop in the social care workforce. Resolving the social care capacity crisis is vital if we are to improve discharge rates.

\textsuperscript{22} Department of Health and Social Care, ‘Adult Social Care Discharge Fund: Guidance’, Webpage, 18 November 2022.

\textsuperscript{23} Department of Health and Social Care, ‘Up to £250 Million to Speed up Hospital Discharge’, Press release, 9 January 2023.
However, it remains the case that many discharge challenges continue to be within the NHS’s control to fix. Last month, NHS England released data on the reasons that patients with a length of stay of over 21 days who were medically fit to discharge remained in hospital. Reform analysis of this data suggests that on average in December 2022 at least 43 per cent of discharge delays among this group were due to issues which are the NHS’s responsibility (Figure 2).24 This stands in contrast to the common narrative that long-stays are the result of the crisis in social care.

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24 NHS England, Supplementary Information: Hospital Discharge Sitrep Data, January 2023, 2023; Authors’ calculation based on percentage of delays attributed to the following categories in Sitrep data: Awaiting a medical decision/intervention including writing the discharge summary; Awaiting therapy decision to discharge; Awaiting referral to community single point of access; Awaiting medicines to take home; Awaiting transport; Awaiting confirmation from community hub/single point of access that referral received and actioned; Pathway 1 (subset): awaiting availability of resource for assessment and start of care at home, of which provided by the NHS; Pathway 2: awaiting availability of rehabilitation bed in community hospital or other bedded setting; Repatriation/Transfer to another acute trust for specialist treatment or ongoing treatment; Awaiting Diagnostic test.
Many delays still result from basic operational failures within the NHS. These include delays to writing discharge summaries, and patients awaiting medicines to take home, transport from hospital, or diagnostic tests. These coordination challenges may stem from the managerial deficit outlined above – without effective managerial input, basic operational processes suffer.

Additionally, delays also result from capacity shortages in non-hospital NHS services. While the NHS has an explicit commitment to shifting more resource into primary and community care, the opposite has happened. This is no different for workforce – the NHS’s workforce planning has tended to focus on the hospital sector at the expense of the primary and community sectors, but effective discharge requires capacity in step-down and rehabilitative care.

When it comes to doctors, the NHS’s workforce crisis is predominantly about community and mental health clinicians – not those working in acute hospital trusts. Community medical vacancies run at a far higher level than acute vacancies in almost every English region as can be seen in Figure 22. In London, more than 35 per cent of community medical positions are vacant.


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A similar story emerges in the case of community health nurses, who provide ongoing NHS care in patients’ homes, care homes and clinics across the country. As Figure 23 shows, numbers in this category experienced a sharp decline over the last decade. Between October 2010 and October 2015, this category saw a 12.5 per cent drop. Despite a solid (and extremely welcome) uptick in numbers since 2020 there are still fewer community nurses working than in 2010.
Generic discussions about staff shortages are deeply unhelpful, if the NHS wants to get to grips with the A&E crisis, it needs a laser focus on boosting the community-based workforce – that would ease pressures on the both the front and back doors of hospitals. It is a clear example of why a shift away from our hospital-dominated healthcare model is so important.
Conclusion

This deep dive into A&E-related data shows that some of the most frequently cited ‘drivers’ of poor performance are not drivers at all. It is unlikely that high levels of patient demand (either due to increased attendances or more complex illness) is driving poor performance. While emergency staff are no doubt under immense pressure, the data does not support the idea that there is a shortage of emergency medicine doctors or ambulance staff – simply putting more resources into A&E itself will not make the situation better. Past A&E strategies which have focused on reducing demand at the front door and increasing the supply of emergency medicine staff have failed to improve performance.27

A&E pressures are a system challenge and they are being driven by failures to move patients through hospital wards and back home efficiently. NHS strategy has finally started to catch up with this reality. Last week’s Urgent and Emergency Care plan focuses on temporary increases in bed capacity, speeding up discharge including through targeted social care investment and offering care at home through virtual wards.28 These are welcome initiatives.

However, this analysis points to two key missing ingredients that must inform future strategy. Challenges in improving discharge, the key driver of poor performance, must be met through improving process management and ensuring availability of high-quality NHS services outside of the hospital setting. Neither of these are being adequately addressed at present.

In the first instance, boosting management numbers and improving operational capabilities is crucial if the NHS is to get on top of the A&E crisis and reduce significant, unwarranted variation between trusts. Large expansions in the NHS hospital workforce in recent years have not been matched by a commensurate increase in operational managerial capacity and capability. Coordinating hospital care, monitoring and responding to bed flow bottlenecks, and effectively organising discharge are core duties of hospital managers. Investing in management is vital to ensuring that extra resources flowing into our health system are used wisely to address the current crisis.

Secondly, as Reform’s analysis shows, increases in the hospital workforce have also not been matched by increased staffing in non-hospital settings. Comparatively low levels of community nurses and allied health professionals responsible for rehabilitative care cause bottlenecks when it comes to discharge. It also limits the NHS’s ability to deliver more preventative care which could reduce acute sector demand. Without a

workforce model which focuses on the community services essential for (keeping and) moving patients out of hospital, discharge will remain a major challenge.

As is well acknowledged, further, urgent, action is also needed to address issues within social care, but this must not overshadow the fact that the NHS must address those barriers to discharge that sit squarely within its own responsibility.