Imperial College London

Patient Safety Watch

National State of Patient Safety 2022

What we know about avoidable harm in England

INSTITUTE OF GLOBAL HEALTH INNOVATION

Contents

Acknowledgements and suggested citation

This report was produced by Imperial College London's Institute of Global Health Innovation. It was made possible by the generosity of the charity Patient Safety Watch founded by the Rt Hon Jeremy Hunt MP.

The authors would like to thank the following people who have provided valuable input and advice in the production of this report: Kelsey Flott, Owen Bray, Gianluca Fontana, Bryony Dean Franklin, Hendramoorthy Maheswaran, Paul Aylin, Clare McCrudden, Meesha Patel, Rebecca Lawton and Tony Avery.

Suggested citation: Illingworth J, Shaw A, Fernandez Crespo R, Leis M, Howitt P, Durkin M, Neves AL, Darzi A. The National State of Patient Safety: What we know about avoidable harm in England. Imperial College London (2022).

Foreword from Professor the Lord Ara Darzi

The continuous improvement of patient safety is a priority for all modern healthcare systems. Improvements can come in the form of reduced rates of patient harm, enhanced confidence in clinicians, or greater willingness of staff to raise concerns about safety. This report explores the progress made in England by the NHS over the past 15 years.

Improvements in patient safety can only be demonstrated when meaningful data are collected, routinely and consistently, over time. There are several examples where the NHS in England has had the foresight to establish national data collections to support this ambition, such as the National Reporting and Learning System (NRLS), or to initiate national improvement programmes with accompanying data collections, such as the National Venous Thromboembolism (VTE) Prevention Programme. This report brings together data from these, and many other sources, to present a national picture of patient safety in England.

It is, of course, not just about collecting the data, but about applying the knowledge it affords us, to continually improve practice. Therefore, when the data highlight concerns, it is vital we act on it. This report identifies issues linked to an under-resourced and over-stretched workforce, which is affecting staff wellbeing and public confidence, and most likely patient outcomes. It also highlights ongoing, and worsening, problems associated with timely and equitable access to care, and the need to consider this an urgent patient safety issue.

This report also shows that the data currently collected can only tell us so much. Further work is required to understand safety concerns in near-real time, in settings outside of hospitals, and from the impact, both physically and psychologically, of people experiencing delays in their care or treatment. These are priorities that the policy and research communities must respond to. The Institute of Global Health Innovation, together with valued colleagues at Patient Safety Watch, look forward to continuing the work to help make a difference in these areas.

Professor the Lord Ara Darzi

Co-Director,
Institute of Global Health Innovation

Foreword from James Titcombe OBE

Patient Safety Watch was founded with the aim of helping to improve patient safety, primarily through commissioning research to highlight the extent and causes of avoidable harm and the policies and interventions that will minimise it. We are incredibly grateful to Lord Darzi and the team at Imperial College London, whom we have partnered with to bring together this research looking at what we know about avoidable harm across the healthcare system in England in 2022.

The report highlights some stark statistics. When looking at rates of treatable deaths (those which can be mainly avoided through timely and effective healthcare intervention), if the UK matched the top decile of OECD countries, this would equate to 12,675 fewer deaths per year – that is 243 fewer deaths every week. Looking at primary care, in 2020, there were estimated to be between 19,800 and 32,200 cases of 'probably avoidable' significant harm to patients in England – that is between 380 and 619 patients coming to harm that could have been avoided every week.

The research presented here also highlights that the patient safety data we currently collect is limited, both in terms of accuracy and breath. This must change. It is particularly disappointing for example, that only 44% of trusts in England are currently meeting all their legal obligations under the Learning from Deaths programme.

Although the current data available can only tell us so much, the information presented here paints a clear picture of where some significant problems lie. Workforce pressures, exacerbated by the pandemic, are particularly acute and are likely to be already contributing to adverse outcomes across the healthcare system.

In maternity services, although national level statistics show some encouraging improvements in key outcomes, triangulating data from maternity reviews, inquiries and regulatory processes, show that similar problems are reoccurring, suggesting that learning isn't being sufficiently embedded and sustained. Unless the pace of improvement in maternity safety increases, the government's own targets relating to maternity safety for 2025 will be missed.

Patient Safety Watch strongly endorses the recommendations made in this report and we hope to see changes across all the areas identified for action.

Behind the data and numbers, we are only too mindful that there lies a very real human toll and tragic individual stories with impacts that often span generations and affect whole communities. Together with our valued partners at Imperial College London's Institute of Global Health Innovation, we look forward to continuing our programme of research with the ultimate hope of improving patient safety and reducing avoidable harm in our healthcare system here and in other healthcare systems around the globe.

James Titcombe OBE

Trustee,
Patient Safety Watch

Executive summary

Keeping patients safe during their care and treatment should be at the heart of any health system, including the NHS. Yet avoidable harm still occurs every day, around the world. There have been major efforts to prioritise patient safety in England, but the pandemic has shone a light on areas of care where progress has stalled, or safety has deteriorated. This report by Imperial College London's Institute of Global Health Innovation, commissioned by Patient Safety Watch, **brings together publicly available data to present a national picture of patient safety in England**.

There are several reasons, however, why presenting a national picture of patient safety is challenging. Most of the available data relate to hospital care, even though care is overwhelmingly provided in other settings. Most of the available data relate to past episodes of care, rather than reflecting what is happening today. And most of the available data views harm from a clinical, rather than a patient's, perspective. As a result, any national picture will be formed from an incomplete patchwork of data. Despite these challenges, several conclusions can be drawn, and they paint a mixed picture of patient safety in England.

Analysis of mortality rates over the past 10 years shows variation across the country. Regions outside of London consistently have a larger proportion of NHS hospital trusts with higher-than-expected mortality rates. For example, in 2021, the Midlands and East of England, and the North of England, had 12% and 15% of hospital trusts with higher-than-expected mortality rates, compared to none in London. If all NHS hospital trusts had a mortality rate that matched the top performing ten per cent each year, there would have been on average 32,332 fewer deaths each year between 2011 and 2021. There are, of course, important limitations to presenting data such as these, but it does indicate the opportunity for learning from those organisations and regions performing well.

Progress in improving outcomes in maternity services is evident in the data at a national level. The years leading up to the pandemic saw reductions in rates of maternal deaths, neonatal deaths, stillbirths, and babies diagnosed with brain injury.

However, despite these improvements, progress is not being made quickly enough to meet the Government's own targets by 2025, and England is lagging behind other countries such as Sweden. The public scrutiny that has followed the scandals at Morecambe Bay, Shrewsbury and Telford, and East Kent has provided further momentum in driving improvements in maternity safety; at the same time, they are a sombre reminder that beneath the national level trends lie local examples of dreadful failures in care and the inability of some organisations and systems to learn from past failures.

There is evidence of progress in creating a more positive safety culture amongst the workforce, with higher levels of patient safety incident reporting than ever before. The new Care Quality Commission (CQC) inspection regime, introduced in 2014, has seen the number of NHS trusts rated "good" or "outstanding" for safety rise from 13% to 40% between 2015 and 2022. However, the most recent data from the NHS Staff Survey show that, despite steady improvement, one in four staff still do not feel secure raising concerns about unsafe clinical practice, and two in five staff do not think they would be treated fairly when incidents happen.

In the 15 years prior to the pandemic, there were significant achievements in reducing the prevalence of specific types of patient harm. The concerted efforts of healthcare workers, and the impetus provided by national campaigns, led to dramatic reductions in rates of hospital-acquired MRSA and *C.difficile* infections, and major improvements in outcomes for people with Venous Thromboembolism (VTE, or blood clots in the veins) and hip fractures. These examples show how data can provide not only a means of measuring improvements, but also the stimulus for acting in the first place, when high levels of harm or unwarranted variation exist.

The Covid-19 pandemic effectively stopped this progress on patient safety in its tracks. Since 2020, rates of MRSA and *C. difficile* infections have begun to rise again, or continued to rise in the case of *E. coli* and MSSA. Rises in rates of deaths associated with VTE and hip fracture are also evident. Further work is required to fully understand the reasons for these rises, and the resulting safety implications.

The pandemic has also exacerbated issues associated with staff wellbeing and capacity, with notable rises in staff reporting burnout, ill-health due to work-related stress, and feeling that there are not enough staff to do their job properly. The NHS entered the pandemic with around 84,000 vacancies; as of June 2022, this figure stood at 132,000. Combined with the challenges of increasing waiting lists for planned care, falls in the diagnosis of some long-term conditions, and significant pressures on emergency services - all exacerbated by the pandemic - the lack of timely and equitable access to care should be considered an urgent patient safety issue.

Addressing these safety challenges must be a key priority for the new Prime Minister and Health Secretary. This report makes five recommendations, highlighting the vital role that the intelligent collection and monitoring of patient safety data, and the rapid response to any concerns they raise, can play in the continuous improvement of patient safety. Underpinning all of these recommendations is the principle that, f**irst and foremost, patient safety needs to be seen and truly understood from the patient's perspective**.

Recommendations

1 The breadth of patient safety data needs to increase.

Data should reflect the reality of people's journey through the NHS, capturing information on preventable harm across the entire continuum of care, not just when they go to hospital. Data should be collected in real time, and used routinely to trigger alerts into emerging safety issues. Data should better reflect how safe patients, families and carers feel, not just how safe they are clinically. Data should be targeted to understand whether some people are less safe than others, particularly those from disadvantaged or minority ethnic groups.

2 The accuracy of key patient safety measures needs to improve.

Data on rates of avoidable deaths are not a panacea. They provide a snapshot of safety and harm, and are most usefully used to initiate further work to understand the causes of any unwarranted variation. They remain, however, a key patient safety indicator, and trusts must fulfil all of their legal obligations under the Learning from Deaths programme - something only 44% of trusts are currently doing. This includes reporting their own estimated number of avoidable deaths using locally-appropriate methods. Further work to improve routine reporting of rates of avoidable harm and death outside of hospital settings is also required.

3 A workforce plan for the NHS and social care system is urgently needed.

Workforce shortages across nearly all areas of care present one of the most immediate threats to patient safety. The NHS entered the pandemic under considerable pressure, while the heroic efforts of staff to respond to the pandemic has taken a further toll evidenced in the NHS staff survey data. The Government must publish a workforce plan to demonstrate how the workforce gaps will be filled over the next decade through increases in training places and improvement of retention. Its central assumptions should be independently verified and regularly updated.

4 Integrated Care Systems need to play a central role in monitoring patient safety.

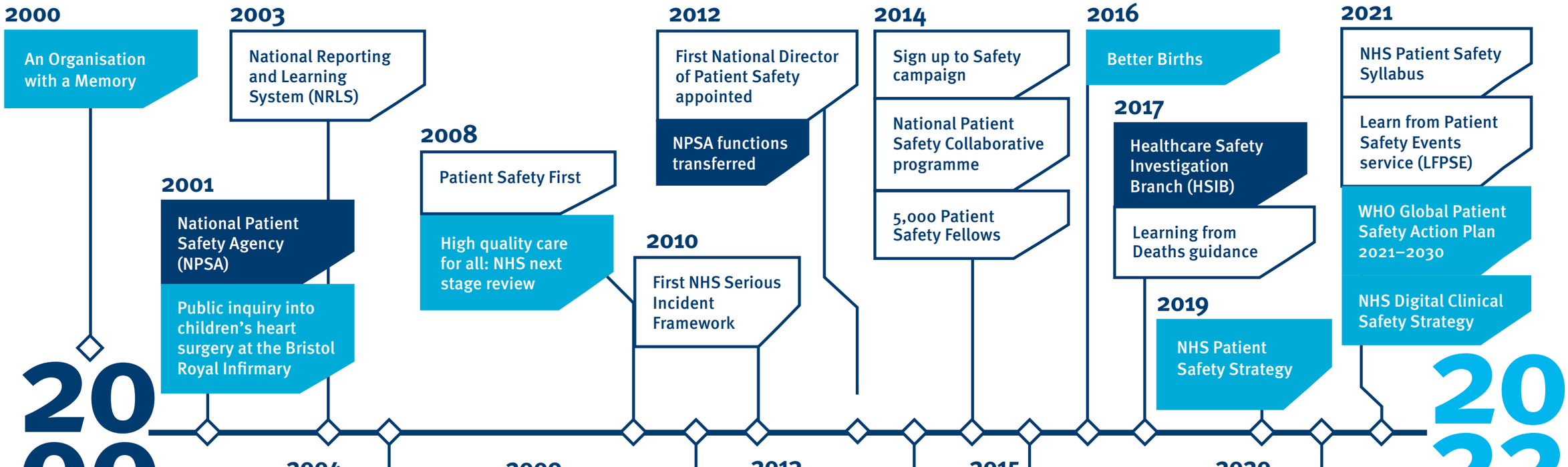
Patient safety must be given sufficient priority in the establishment of the new Integrated Care Systems (ICSs) and in how they are assessed by the CQC, so that patient safety remains a key tenet under the new NHS structures. Patient safety data tends to be collected at the organisational level, but this rarely reflects the reality of a person's journey through the health and care system. The creation of ICSs presents a unique opportunity to collect and organise patient safety data at a health economy and population level to build a truer picture of safety.

5 Progress in the safety of maternity services needs to accelerate.

National-level data show steady overall progress in reducing harm for mothers and babies, but evidence from major reviews and inquiries continue to highlight repeated themes suggesting that some systemic issues have not yet been addressed across the maternity system as a whole. Multiple inquiry reports have made many recommendations, focusing repeatedly on themes including speaking-up, team working, compassion, and using data to detect and act on the early warning signs of failure. These recommendations should be consolidated and implemented as quickly as possible.

A timeline of landmark events in patient safety in England

This timeline[1] illustrates some of the landmark events in the evolution of patient safety in England since 2000, that have either accelerated progress or set a new direction for patient safety.



2000
An Organisation with a Memory report published on the nature and scale of serious failures and how the NHS might learn from them

2001
Public inquiry into children's heart surgery at the Bristol Royal Infirmary published

National Patient Safety Agency (NPSA) established to coordinate efforts to address and learn from adverse incidents in the NHS

2003
National Reporting and Learning System (NRLS) becomes operational, a world-first as a single national system for incident reporting

2004
Fifth report of the Shipman Inquiry published recommending reform of the handling of concerns about GPs and their ongoing fitness to practise

Health Foundation's Safer Patients Initiative established

2008
Patient Safety First launched as national campaign to prioritise patient safety

High quality care for all: NHS next stage review published

2009
Care Quality Commission (CQC) established

First list of Never events published and requirement established for NHS organisations to report each incidence

WHO Surgical Safety Checklist mandated in the NHS

2010
First NHS Serious Incident Framework established

2012
NPSA functions transferred to NHS Commissioning Board Authority

First National Director of Patient Safety appointed as Dr Mike Durkin

2013
Report of the public inquiry into Mid Staffordshire NHS Foundation Trust published

Berwick review into patient safety published

2014
Sign up to Safety campaign established to build on Berwick review and help reduce avoidable harm

National Patient Safety Collaborative national programme established, delivered through 15 Academic Health Science Networks

5,000 Patient Safety Fellows recruited, later becoming the Health Foundation Q initiative, to create a national community for the quality and safety of healthcare

2015
Report of the investigation into maternity and neonatal services at Morecambe Bay published

Duty of Candour requirement implemented for NHS professionals to be open and honest with patients when something goes wrong with their care or treatment

First Global Ministerial Summit on Patient Safety held in London

Report of the Independent Review into the death of Connor Sparrowhawk published

2016
Better Births report published setting out a vision for improving the safety of maternity services

2017
Healthcare Safety Investigation Branch (HSIB) established to undertake independent patient safety investigations and identify learning for the wider health system

Learning from Deaths guidance published on how NHS organisations should respond following the death of a patient in their care

2019
NHS Patient Safety Strategy published

2020
Patient Safety Incident Response Framework (PSIRF) piloted

2021
NHS Patient Safety Syllabus implemented for all NHS staff

Learn from Patient Safety Events service (LFPSE) piloted, to replace the NRLS

WHO Global Patient Safety Action Plan 2021-2030 published

NHS Digital Clinical Safety Strategy published

2022
Report of the independent review of maternity services at Shrewsbury and Telford Hospital NHS Trust published

Organisation | Publication/Report | Initiative

[1] Derived in part from: Sirrs C. NHS Patient Safety Timeline. Available from: https://warwick.ac.uk/fac/arts/history/chm/research/current/hazardoushospitals/patient-safety-timeline/ [Accessed 26 July 2022].

1. Introduction

Over the past three decades, patient safety has moved from relative obscurity to become a central goal for health systems. On the 24th May 2019, member states meeting at the World Health Assembly committed to recognise patient safety as a key health priority, and to take concerted action to reduce patient harm.[2] The resolution included an acknowledgement of the importance of robust data and the sharing of good practice. These two principles form the basis for this report, in the knowledge that efforts to continually improve patient safety must begin with an accurate understanding of the nature and extent of unsafe care.

The measurement of patient safety, like for other domains of healthcare quality, has grown to the point that data now take many different forms (from incident reporting to staff and patient surveys) and lie in many different places (from unsolicited social media platforms to systematically collected national data repositories). This report brings together some of the publicly available data to present a national picture of patient safety in England, celebrating achievements as well as identifying areas for continued action. Further work is required to ensure the insights gained through less formal channels can be incorporated appropriately into future national assessments.

1.1 What is patient safety today?

In the most basic terms, patient safety refers to the absence of preventable harm in healthcare. In his review of patient safety in England (2013), Professor Don Berwick stated that, while zero harm is a worthy ambition, the scientifically correct goal is the *continual reduction* of harm.[3] Over the past two decades, there have been concerted efforts in England to drive reductions in specific types of harm. Through these efforts, our understanding of the factors that can contribute to safer care has deepened, including the role played by creating a positive safety culture, applying the science of ergonomics and human factors, and understanding where and how healthcare systems and processes can be made more reliable.[4] At the same time, there are almost daily reminders of where further action is required to accelerate progress in patient safety, including the integration of care, patient and family engagement, and improved levels of transparency.[5]

The COVID-19 pandemic has furthered understanding, and reinforced the importance of patient safety. Ongoing and worsening challenges around delayed diagnoses and waiting lists for planned care, for example, can have major consequences for patients. The pandemic exposed healthcare workers to grave risk and extremely challenging working conditions, the cost of which – including high rates of COVID-19 deaths among health workers, burnout, psychological harm, moral injury, physical ill health, and its impact on patient safety – is still being felt and will remain relevant as healthcare services recover and reset.[6] At the same time, the pandemic hinted at what future models of care might look like, from the rapid advancement of treatments to the accelerated use of digital technologies to provide remote care.[7] The priority must be an enhanced focus on the importance of monitoring and evaluating the effect of these changes, including any unintended consequences, to inform a vision for patient safety in a post-pandemic world.[8]

In 2020, it was estimated that

237 million

medication errors

occur in England each year, contributing to more than

1,700 deaths[9]

In 2020, there were estimated to be between

19,800–32,200

cases of **'probably avoidable'** significant harm to patients in primary care in England each year.

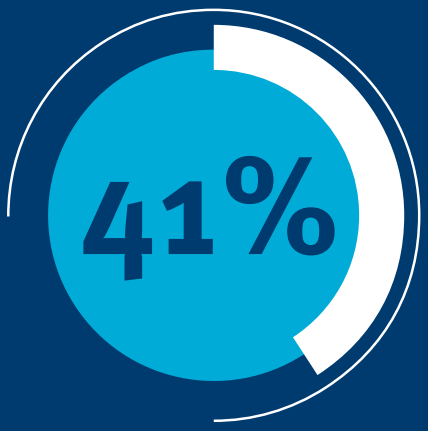
In 2020/21, the cost of clinical negligence claims incurred as a result of incidents was

£7.9 billion[10]

In March 2022, the total number of people waiting for planned care reached

6.3 million[12]

As of July 2021,

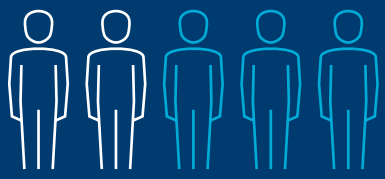


of maternity services in England were rated as "inadequate" or "requires improvement" for safety by the Care Quality Commission (CQC).[11]

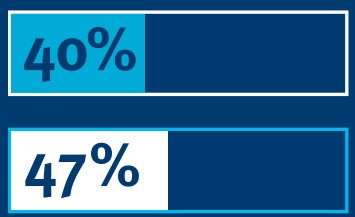
For the period April–June 2022, there was a shortage of more than

132,000

full-time equivalent healthcare staff - a vacancy rate of **9.7%**.[13]



In 2019, **two in five patients** in hospital did not agree there were always enough nurses on duty to care for them.[14]



In 2019, **40%** of staff reported feeling unwell as a result of work-related stress. This rose to nearly **47%** in 2021.[15]

Between 2017–19, Black women were **four times more likely**, and Asian women or women of Mixed ethnicity were **twice as likely**, than white women, to die during pregnancy or childbirth.[16]

1.2 Understanding safety from the perspective of patients and families

Despite successful efforts over the past two decades to increase awareness of patient safety, most people's introduction to the notion tends to be when they suffer the consequences of unsafe care – which can be devastating for patients and their families. Each individual patient experience can play a critical role in reinforcing trust in the healthcare system, ensuring that people are heard and understood when there is a concern about their care, and that action is taken to prevent the same thing from happening to somebody else.

Episodes of unsafe care can provide the stimulus for review and action at a local or national level to drive improvements, as shown in the timeline on page 9. However, this *learning from failure* approach, while necessary, is only one dimension of patient safety improvement.[17] For all health systems, the ambition must, ultimately, be to address areas of unacceptable risk *before* they lead to serious harm, and to give equal attention to *learning from excellence*[18] – an ambition which forms the basis for the NHS Patient Safety Strategy.[19]

To support this shift, patients, carers and families can be supported to play a more active role in capturing insights into unsafe care. Research has shown that data collected directly from patients can highlight issues – including fear (e.g. of other patients), uncertainty (e.g. about when they will be discharged), and delays (e.g. in a procedure) – that traditional clinical incident reporting systems overlook.[20] Such safety concerns are often contributory factors to future adverse events, making them possible *leading* measures of patient safety,[21] describing the conditions that make harm more likely to occur.[22]

Involving patients, carers and families proactively when they feel willing and able to do so, capitalises on their unique insights into how safely healthcare services are functioning. Some of these insights are presented in Section 3 of this report, captured as part of the National Patient Survey Programme in England. However, this report also makes clear that our understanding of the nature and scale of unsafe care in England is limited by the scope of current incident reporting and data collection mechanisms. Alternative approaches to the collection of safety intelligence, including patient-reported data, are therefore more important than ever before. The establishment of the Patient Safety Partners Programme to bring the voice of the patient to the boards of NHS organisations can play a key role to support this ambition.[23]

Placing the state of patient safety in England in a global context

The risk of harm from healthcare, and the pursuit of continuous improvements in patient safety, are a concern for countries around the world. In our report, *The Global State of Patient Safety* (2019),[24] the burden of unsafe care was set out in stark terms as a threat to achieving the United Nations' Sustainable Development Goal[1] of access to quality health services for all.[25] This burden disproportionately impacts low- and middle-income countries (LMICs) where it is estimated that safety lapses result in **134 million adverse events, and 2.6 million deaths annually.**[26] **60% of deaths from conditions amenable to treatment are due to poor quality care in LMICs.**[27] The economic cost is considerable, with **15% of inpatient expenditure directed towards treating the effects of harm** in a typical country in the Organisation for Economic Co-operation and Development (OECD).[28]

The reality presented by these figures has made clear the scale of the problem of unsafe care, and the urgency with which it needs to be addressed – a challenge the global health community has responded to. In 2016, the first **Global Ministerial Summit on Patient Safety** was held in the UK to galvanise policy and prioritise action on patient safety, with subsequent summits held in Germany, Japan and Saudi Arabia, with the next planned for Switzerland in 2023. The World Health Organization hosted the first annual **World Patient Safety Day** on 17th September 2019, bringing together healthcare leaders, policymakers and the public to make the case for global action on patient safety. Most recently, the World Health Organization has developed a **Global Patient Safety Action Plan 2021–2030**, providing a framework to implement interventions and develop indicators, to improve patient safety globally over the next decade.[29] These developments provide the context for, and framework around which, efforts to measure, monitor and improve patient safety can be directed in England.

1.3 Establishing a national picture of patient safety

This report is intended to provide a stocktake on the state of patient safety in the NHS in England using data that is currently available and in the public domain, including both routinely collected data on harm and activity, and patient and staff perceptions of safety. However, measuring patient safety is challenging for several reasons: national-level data is heavily weighted towards hospital care, despite the overwhelming majority of patient contact taking place outside of hospital;[30] safety data tends to capture past episodes of harm, rather than current levels of safety or early signs of unsafe care;[31] and despite efforts to capture the patient experience, harm tends to be seen from a clinical, rather than a patient perspective.[32] Therefore, any national picture of patient safety will, by its very nature, be formed from an incomplete patchwork of data derived from a variety of sources and perspectives.

The data landscape for patient safety comprises incident reporting systems, national patient and staff surveys, audits that capture information about elements of care designed to improve outcomes, data collections to record the incidence of specific types of harm, and routinely collected clinical and administrative data. Specifically, this report draws on the following sources:

- Rates of preventable and treatable mortality reported by the OECD, **excess death rates** from the Office for National Statistics (ONS), and research around compliance with new guidance for understanding the proportion of **deaths due to problems with care**

[1] The United Nations Sustainable Development Goals are 17 goals with 169 targets that all UN Member States have agreed to work towards achieving by the year 2030. They set out a vision for a world free from poverty, hunger and disease. The third SDG is to "Ensure healthy lives and promote well-being for all at all ages", underpinned by 13 individual targets.

- The **Summary Hospital Mortality Index (SHMI)** data published by NHS Digital to understand whether deaths following admission to hospital were higher or lower than would have been expected
- The number, type and severity of **patient safety incidents** reported by organisations published by NHS England and NHS Improvement
- Data on some of the most common **healthcare-associated infections** – MRSA, MSSA, *C. difficile* and *E. coli* – published by the UK Health Security Agency
- Data on the **safety of maternity services** – an area of particular concern and concerted effort in recent years, focusing on rates of maternal deaths, stillbirths, neonatal deaths, and brain injuries in infants published by MBRRACE-UK
- Results of patient safety-specific questions from:
  - the **national patient surveys** on adult inpatient care and community mental health services published by the CQC
  - the **national staff survey** published by the Picker Institute Europe
  - **CQC surveys** on maternity services and inpatient experiences during the COVID-19 pandemic
- **General practice activity data** published by NHS Digital
- **Data on access to secondary care services**, including waiting times for elective treatment, waits in A&E, and waiting times for ambulances, published by NHS England.

Data were only considered for inclusion where they are collected consistently over time, are publicly available, and provide coverage across England. The report also includes insights from a series of patient workshops held by the NIHR Imperial Patient Safety Translational Research Centre in December 2021.

The data presented in this report tend to be held in separate locations and datasets without regular triangulation, and published in formats that can make it time-consuming to process and analyse – this report aims to address this gap. It is important to note that the vast majority of publicly-available safety data relate to hospital care, despite the majority of patient contacts taking place outside of hospital.

A further challenge comes from understanding which of these datasets can be used to identify actionable insights to improve patient safety, as they defy straightforward categorisations into single, objective measures of safe or unsafe care. As such, establishing a national picture of patient safety represents a vital challenge which the health service must respond to.

1.4 Our approach to the data

The ability to gather data to generate knowledge, and apply that knowledge to improve practice, is a key component to the development of any *learning healthcare system*.[33] Data in this report are therefore presented for the purpose of improvement, not blame. Individual organisations are never identified, but variations over time, across care settings, and sometimes between regions, are shown in order to be helpful for the public, healthcare providers, commissioners of care, system leaders and policy makers. There are some cases where data from 2020 and 2021 have been excluded, where the impact of the COVID-19 pandemic, or changes in the way the data are collected, distorts the picture or renders any comparisons meaningless. Figures in this report include the latest data available for each dataset as of 5 July 2022.

The focus of the report is predominantly on England, given the often different measures and data collection mechanisms in place across the UK. Comparisons with other countries are occasionally included where it can help us to understand where further improvement may be possible. Care should be taken when interpreting the trends and data. Reductions in specific types of harm are rightly cause for celebration, but we may not always know the unintended consequences on other areas of care; similarly, rising rates of reported incidents are not necessarily cause for concern, and may indicate a culture where healthcare workers feel increasingly able to report an incident.

2.
Data about harm

Key messages

- The majority of patient safety data collected in the NHS in England relate to past episodes of harm. Far less data are available to provide insight into the safety of care in real time, or on the conditions that can make harm more likely to occur in the future.
- The UK performs about average on rates of treatable deaths (those which can be mainly avoided through timely and effective healthcare intervention) when compared to OECD countries. If the UK matched the top decile of countries, this would equate to 12,675 fewer deaths per year.
- There is no single data source that provides a definitive number of avoidable deaths in hospitals. Estimates based on reviews of case notes (which do not document all problems with care) suggest that around 5% of hospital deaths have a greater than 50% chance of being prevented.
- Wide variation exists (between 0–13%) in the proportion of deaths reported by hospital trusts as likely to be due to problems in healthcare, as part of the new *Learning from Deaths* requirements.
- Some variation exists in hospital mortality rates at a hospital and regional level, offering valuable opportunities for shared learning across the NHS.
- If all NHS hospital trusts in England had a mortality rate that matched the top performing decile each year, there would have been on average 32,332 fewer deaths each year between 2011 and 2021.
- The number of incidents reported by NHS staff per month roughly doubled between 2010 and 2020, from around 99,000 to 184,000, suggesting the development of a more open and transparent reporting culture.
- Dramatic reductions in rates of some healthcare-associated infections (HAIs), including *C. difficile* and MRSA, have been achieved since 2007, due to the concerted efforts of healthcare workers and the impetus provided by national campaigns.
- However, rates of other types of HAIs, such as MSSA and *E. coli*, have risen steadily since 2012, and the data suggest that rates of *C. difficile* and MRSA have started to rise since the onset of the pandemic.
- Targeted improvement initiatives have resulted in significant reductions in mortality across a number of clinical areas prior to the pandemic, including for venous thromboembolism (VTE) and hip fracture. However, there has been a notable increase in deaths from VTE since 2020.
- Between 2013 and 2019, rates of neonatal deaths and stillbirths fell by 12% and 20% respectively.
- Between 2014 and 2019, rates of babies diagnosed with brain injury fell by 9%.
- Between the periods 2010–12 and 2017–19, rates of maternal death fell by 13%. Women from Black ethnic backgrounds were four times more likely to die, and women from Asian or Mixed ethnicity backgrounds were almost twice as likely to die, compared to White women.
- Several recent reviews and inquiries have found major failings in the care for women and babies in some units, sub-standard quality of investigations into poor care, and the need for the voices of women and families to be heard, particularly those from Black, Asian and Mixed ethnicity groups.

The majority of patient safety data collected in the NHS in England, and in healthcare systems generally, focus on reported cases of harm attributed to the delivery of healthcare. Such data are generally reported by healthcare workers as part of voluntary and mandatory reporting requirements, or for targeted improvement initiatives designed to address specific forms of harm. These types of measures are referred to as *lagging indicators* – relating to outcomes after an event has occurred – and form the basis for the data presented in this section of the report.[34]

There are limitations to this approach, best illustrated by the analogy of trying to drive a car by only looking through the rear-view mirror. In other words, these data can only tell you how safe care has been in the past, but not how safe it is in real-time or will be in the future.[35] The Health and Safety Executive has long recommended a more balanced approach, complementing lagging indicators with *leading indicators* – relating to the precursors to harm, not just the harm itself.[36] These types of data, collected systematically at a national level, remain relatively rare in the NHS. Examples include staffing levels and patient perceptions of care, which are reported in later sections of this report.

2.1 Avoidable deaths

Preventable mortality is defined as "causes of death that can be mainly avoided through effective public health and other primary prevention interventions", such as deaths from heart disease caused by a poor-quality diet. *Treatable mortality* is defined as "causes of death that can be mainly avoided through timely and effective health care interventions, including secondary prevention and treatment", such as deaths from adverse events, sepsis, VTE and some forms of cancer.[37, [2]] Many deaths from treatable causes, therefore, should be considered as a patient safety issue when linked to the quality of healthcare provision.

In 2019 there were more than 130,000 avoidable deaths in Great Britain – more than 22% of all deaths.[38, [3]] Of these, 64% were classed as preventable and 36% were classed as treatable, as shown in Figure 1.[39]

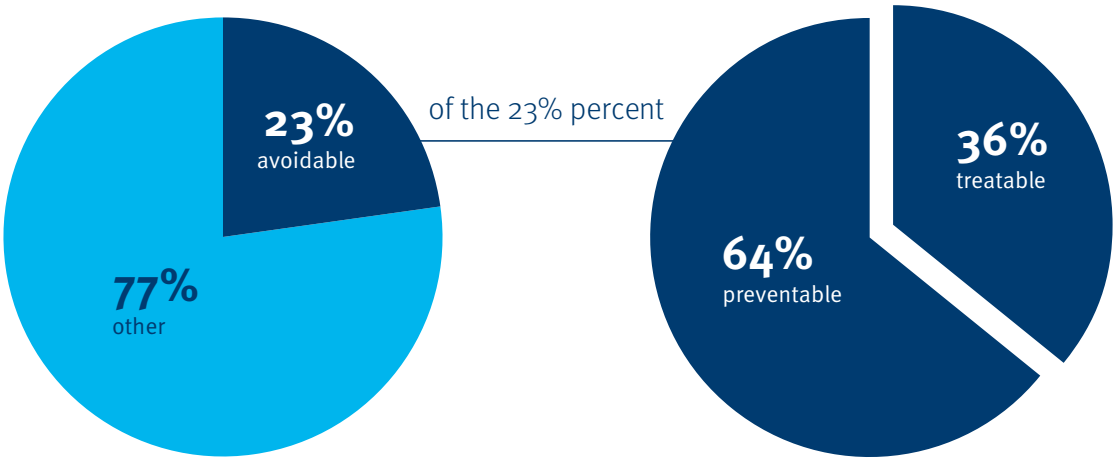


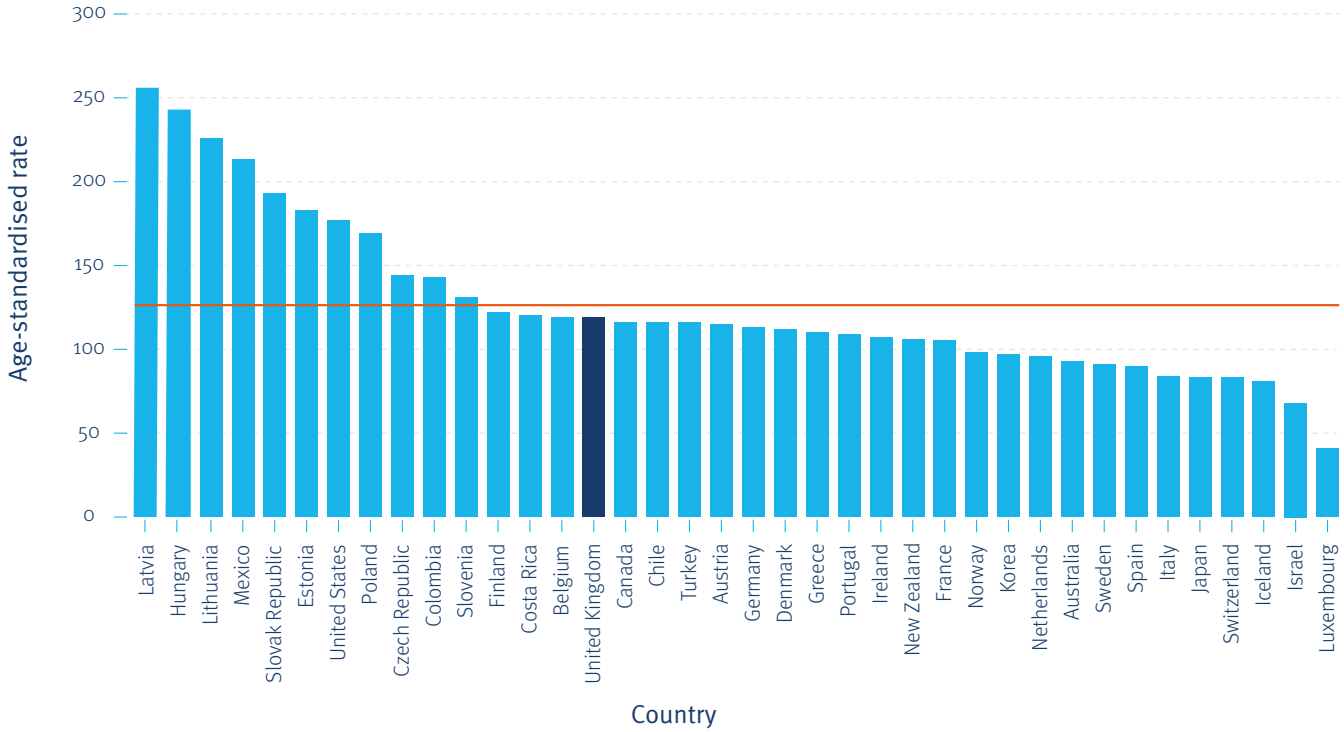
Figure 1: Proportion of avoidable and treatable deaths in Great Britain

The UK performs slightly better than the OECD average for both preventable (117.6 deaths per 100,000) and treatable deaths (66.7 deaths per 100,000; Figure 2), but is placed in the bottom half of countries, representing room for improvement. For instance, if the UK matched the top decile of countries, this would equate to 21,733 fewer deaths due to preventable causes and **12,675 fewer deaths due to treatable causes** per year.[40, 41]

[2] Calculations of preventable and treatable mortality exclude deaths in people aged 75 and over.

[3] Data is available for 2020, however 2019 figures are referred to here to exclude the effect of the COVID-19 pandemic.

Age-standardised deaths per 100,000 due to preventable causes, 2019



Age-standardised deaths per 100,000 due to treatable causes, 2019

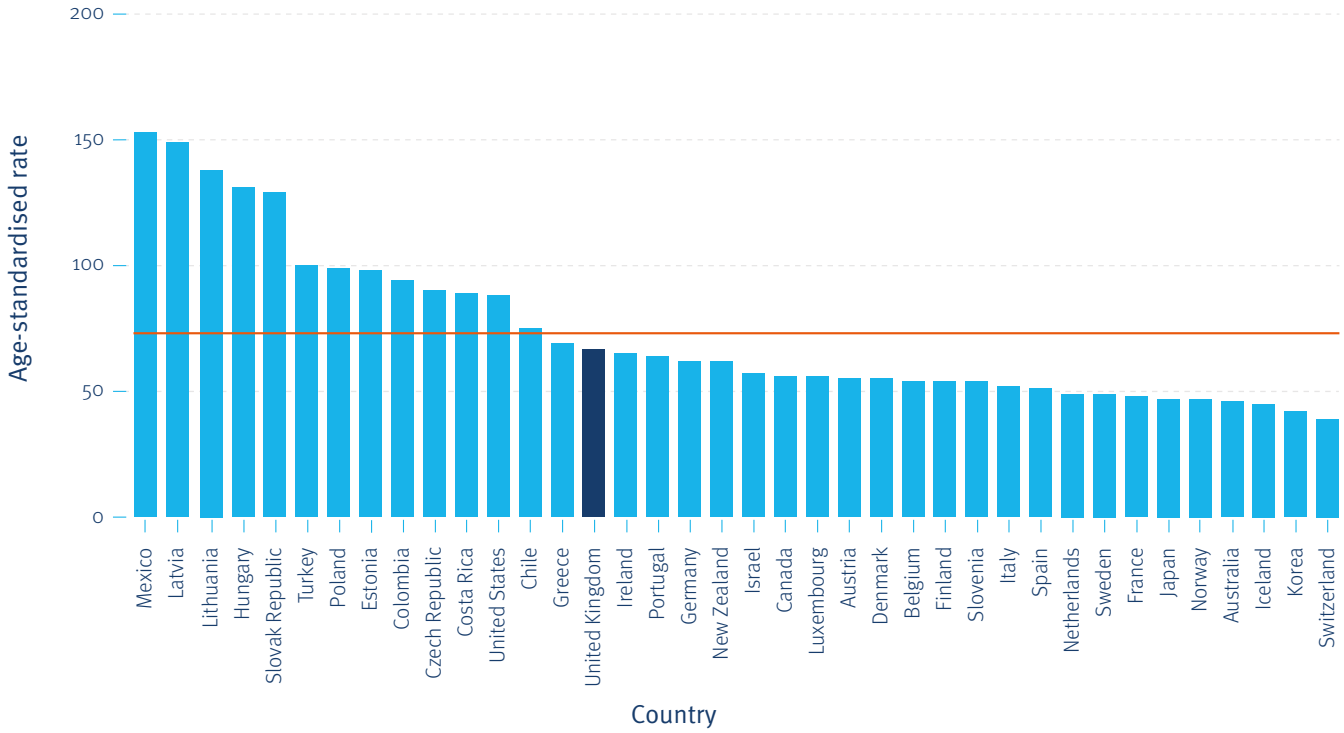


Figure 2: Age-standardised deaths per 100,000 due to preventable and treatable causes in OECD countries. Red horizontal lines indicates the average across all OECD countries. Note: UK figure was calculated using up-to-date data from the Office for National Statistics using the same OECD methodology.

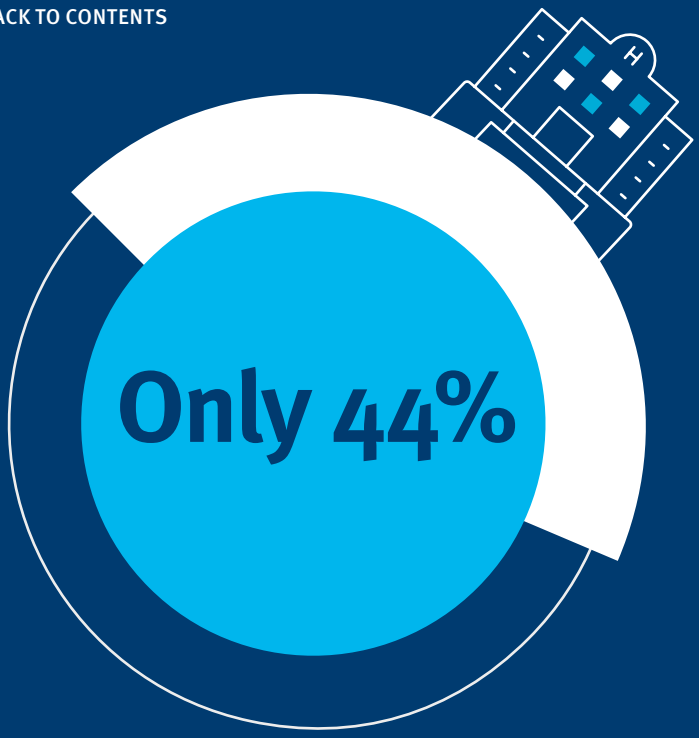
2.2 Learning from deaths

Based on findings from a retrospective record review, research has found that around 5% of deaths of adults in hospital had a 50% or greater chance of being preventable – this may be an underestimate though, as not all problems in care are documented in the records. The main problems found were associated with poor clinical monitoring, diagnostic errors, and inadequate drug or fluid management. While still a substantial figure, the research concluded that a focus on deaths "may not be the most efficient approach to identify opportunities for improvement given the low proportion of deaths due to problems with healthcare".[42]

As part of efforts to establish whether the death of a patient under the care of the NHS was due to a problem in their care, *National Guidance on Learning from Deaths* in England was published in 2017.[43] Based on analysis of all 222 secondary care providers' 2017/18 Quality Accounts (reports on the quality of services offered) in England, wide variation was found in the level of engagement with the Learning from Deaths guidance, and in the proportion of deaths that were linked to problems in care, as highlighted below:[44]

- Up to 13% of deaths were judged more likely than not to be due to problems in healthcare. The median value was 0.2%. Twenty-two trusts did not report any figure
- Only 44% of trusts were reporting all of the legally-required elements in the Learning from Deaths national guidance
- 89% of trusts reported lessons learnt – the most common theme reported was poor communication, and the most common action theme reported was review of process/ standard operating procedure/pathway
- 48% of trusts have shared, or plan to share, the learning within their own organisation
- 86% of trusts reported action taken following their reviews
- Only 17% mentioned involvement of bereaved families.

The researchers concluded that "reporting variation may be due to differences in interpretation of the guidance and statutory requirements", thereby making any comparisons difficult. However, several secondary care trusts reported that they believed zero deaths were due to problems in care, which the researchers found to be improbable, emphasising the need for further work to understand these figures, and support for trusts to interpret the guidance.[45]



of trusts were reporting **all of the legally-required elements** in the Learning from Deaths national guidance[44]

2.3 Mortality rates

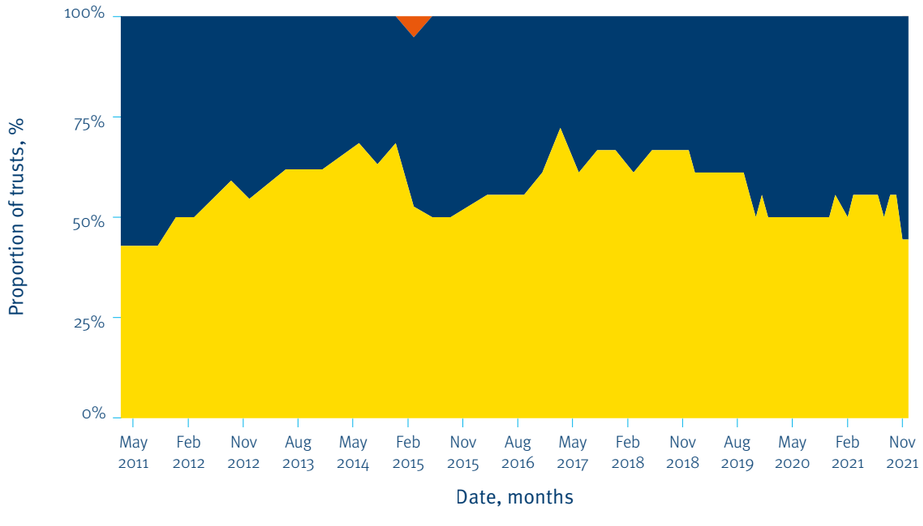
The Summary Hospital-level Mortality Indicator (SHMI) compares the number of patients who die following their admission to a hospital trust with the number that would be expected to die, given the characteristics (e.g. age, underlying health conditions) of the patients treated there over a 12-month rolling period.[46] The SHMI provides a potentially valuable insight into the safety of care, while the transparent publishing of such data along with the methods used for calculating it contribute to a culture of continuous improvement.

Figure 3 shows a breakdown across the four regions of England, illustrating the proportion of Trusts with either more deaths than expected, fewer deaths than expected, or an expected number of deaths over a ten year period. Rates shown for each month are the 12-month rolling rate for that point in time. Deaths related to COVID-19 are excluded, as the method was not designed for use in the context of a pandemic.[47]

The figures show that approximately half of trusts in London had a lower-than-expected SHMI during the study period, whereas the vast majority of trusts in the other three regions (Midlands and East of England, North of England, and South of England) were in the *as expected* category. These three regions also include a larger proportion of trusts with a *higher-than-expected* number of deaths. For the most recent year (January–December 2021), all London trusts had an *as expected* or *lower-than-expected* number of deaths; the proportion of trusts with a *higher-than-expected* number of deaths was 12% in the Midlands and East of England, 15% in the North of England, and 7% in the South of England. Separate research analysing mortality rates for patients admitted with COVID-19 (March–July 2020) found only modest variations between hospitals, after adjusting for risk and random variation.[48]

If all NHS hospital trusts in England had an SHMI value that matched that of the top performing decile each year, there would have been on average 32,332 fewer deaths each year between 2011 and 2021. There are challenges in presenting and explaining data such as these, and it is important to bear in mind that a higher-than-expected number of deaths does not necessarily indicate poor or unsafe care, or a higher-than-expected number of avoidable deaths. Some trusts, for instance, run palliative care services which may not be fully accounted for in the data. Instead, the purpose of presenting this information is to trigger further investigation to understand the causes of any variation, and to identify opportunities for learning from those organisations and regions that are performing well.

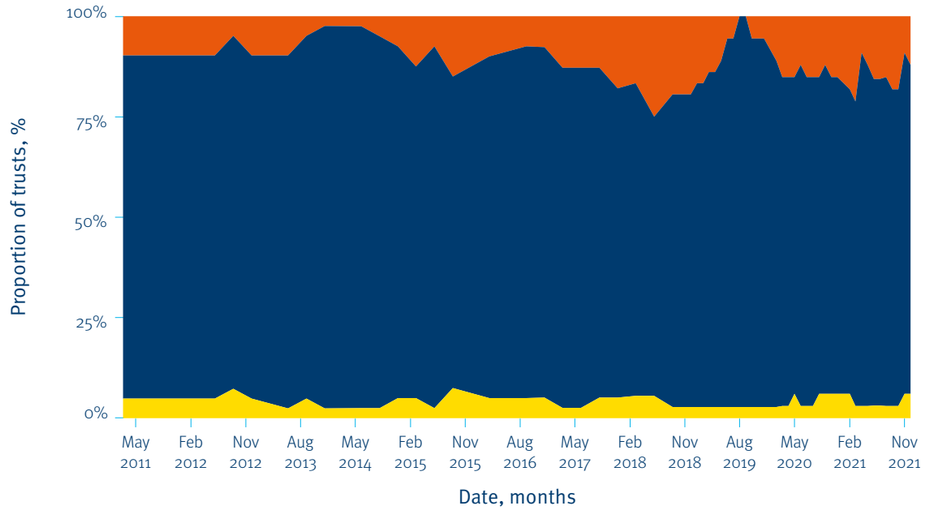
London



North of England

More than expected As expected Less than expected

Midlands and East of England



South of England

Figure 3: Proportion of trusts in each region per Summary Hospital-level Mortality Indicator category.

2.4 Reported incidents

The National Reporting and Learning System (NRLS) is the largest single source of patient safety incident data in England, and one of the largest such databases in the world. The NRLS was introduced in 2003 to collect patient safety incident reports from frontline NHS staff, with over two million incidents now reported annually. Examples of the types of incidents voluntarily reported to the NRLS include instances of a patient slipping or falling while in a care setting, a patient developing a pressure ulcer, or an incorrect medication dosage being given to a patient. The level of harm experienced by the patient is also recorded, ranging from no or low harm, through to moderate or severe harm, or death.[49] Figure 4 shows that the number of incidents reported per month has roughly doubled, from around 99,000 to around 184,000 between the October 2010–March 2011 and October 2019–March 2020 periods, suggesting an overall improvement in reporting culture during this time. There has been a drop in reporting rates since the beginning of the COVID-19 pandemic, most likely due to the pressure that staff have been under.[50]

While most patient contacts occur outside of hospital (300 million general practice patient consultations compared to 23 million A&E visits),[51] hospital incidents still form the majority of all reported incidents, suggesting high levels of under-reporting from primary care.[52] More must be done to improve the reporting of avoidable harm at a national level in care settings outside of the hospital. For example, a recent study (2021) established that there are likely to be between 19,800 and 32,200 cases of 'probably avoidable' significant harm to patients in primary care in England each year. The study identified three types of incident that accounted for more than 90% of the issues with care: problems with diagnosis, medication-related problems, and delayed referrals.[53]

Figure 5 provides information on the severity of safety incidents being reported. Low and no-harm incidents consistently account for the majority of events reported during the study period, with the share of no-harm events slightly decreasing since 2018. Up until the beginning of the pandemic, there was also a decline in the proportion of deaths and severe harm events reported. It is difficult to draw definitive conclusions from this data, and further work is encouraged at both a local and national

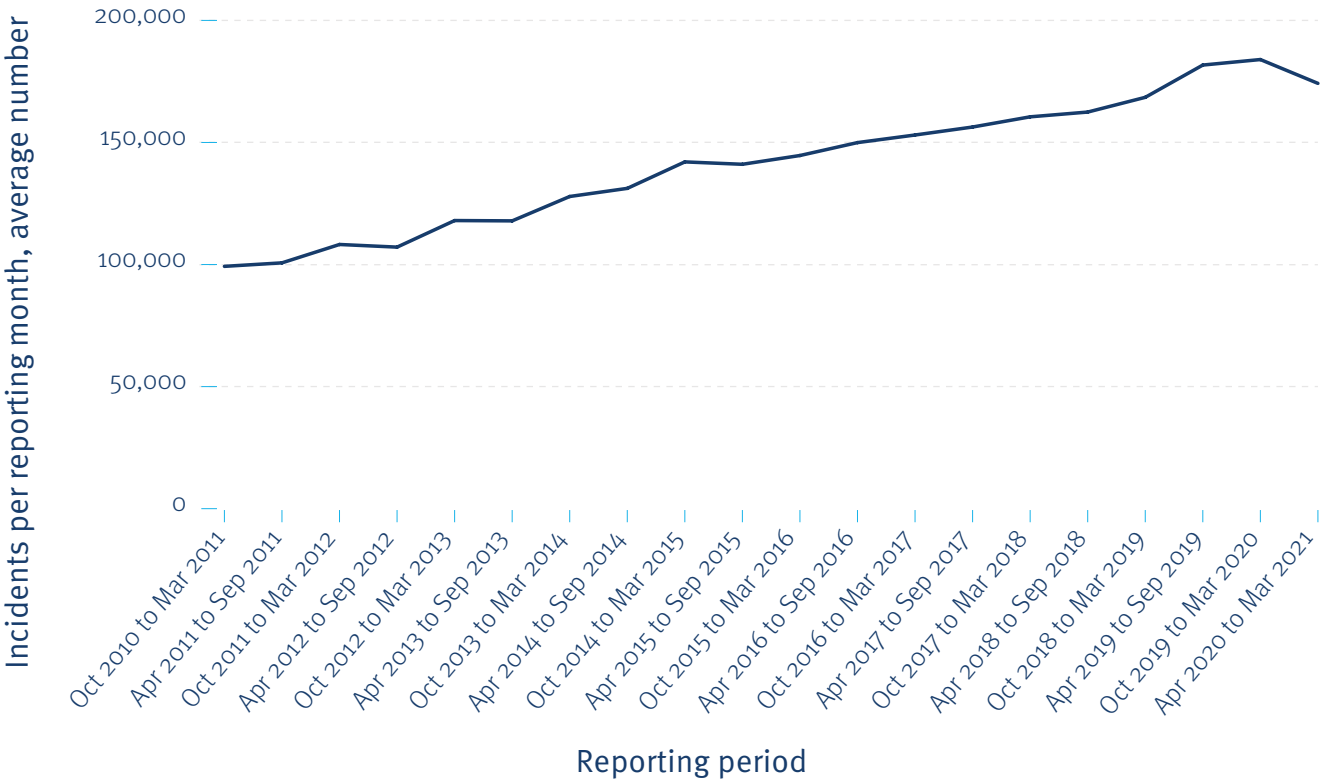


Figure 4: Number of incidents reported to NRLS between October 2010 and March 2021 per reporting month. NRLS report data is available covering 6 months of data from October 2010 to March 2020. The last available report covers 12 months of data (from April 2020 to March 2021).

level to better understand the reasons for the fluctuations over time, and whether such changes reflect improvements in overall safety, rather than in reporting culture alone. It is anticipated that the establishment of a new Learn from Patient Safety Events (LFPSE) service in England in 2022 to replace the NRLS will support these ambitions. The LFPSE service aims to make it easier for staff to report incidents (particularly in primary care) and use new technologies, such as machine learning, to provide more detailed analyses to support improvements.[54]

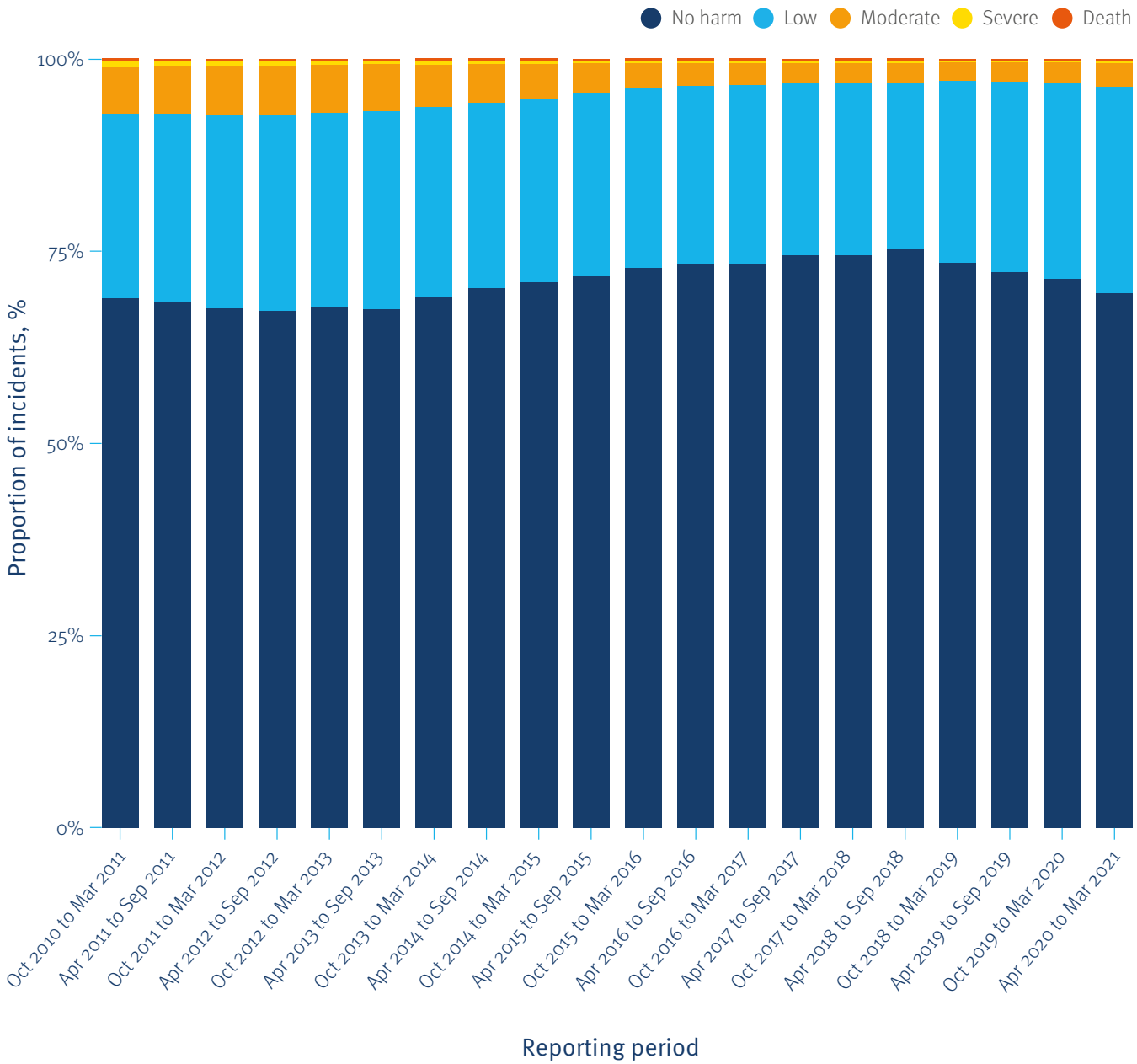


Figure 5: The proportion of incidents being reported to the NRLS from October 2010 to March 2021 by severity of harm. NRLS report data is available covering 6 months of data from October 2010 to March 2020. The last available report covers 12 months of data (from April 2020 to March 2021).

Using data to drive improvements in patient safety

Establishing the current state of patient safety in England is crucial for identifying areas most in need of improvement, and to measure the success of improvement efforts. There have been some notable examples where high-profile campaigns, co-ordinated policy making, and concerted front-line efforts have led to measurable improvements in patient safety. Two of these examples are shown below.

Preventing venous thromboembolism

Venous thromboembolism (VTE) is a condition where a blood clot forms inside a vein. Most commonly, these clots occur in the deep veins of the legs or pelvis, known as deep vein thrombosis (DVT). Up to 60% of all VTE cases occur in hospital, or within 90 days of hospitalisation, due to patients' decreased mobility or treatment complications, making it a preventable patient safety event.[55] In 2005, it was estimated that more than 25,000 people in England died from VTE contracted in hospital each year.[56]

Proportion of patients admitted to hospital who were risk assessed for VTE

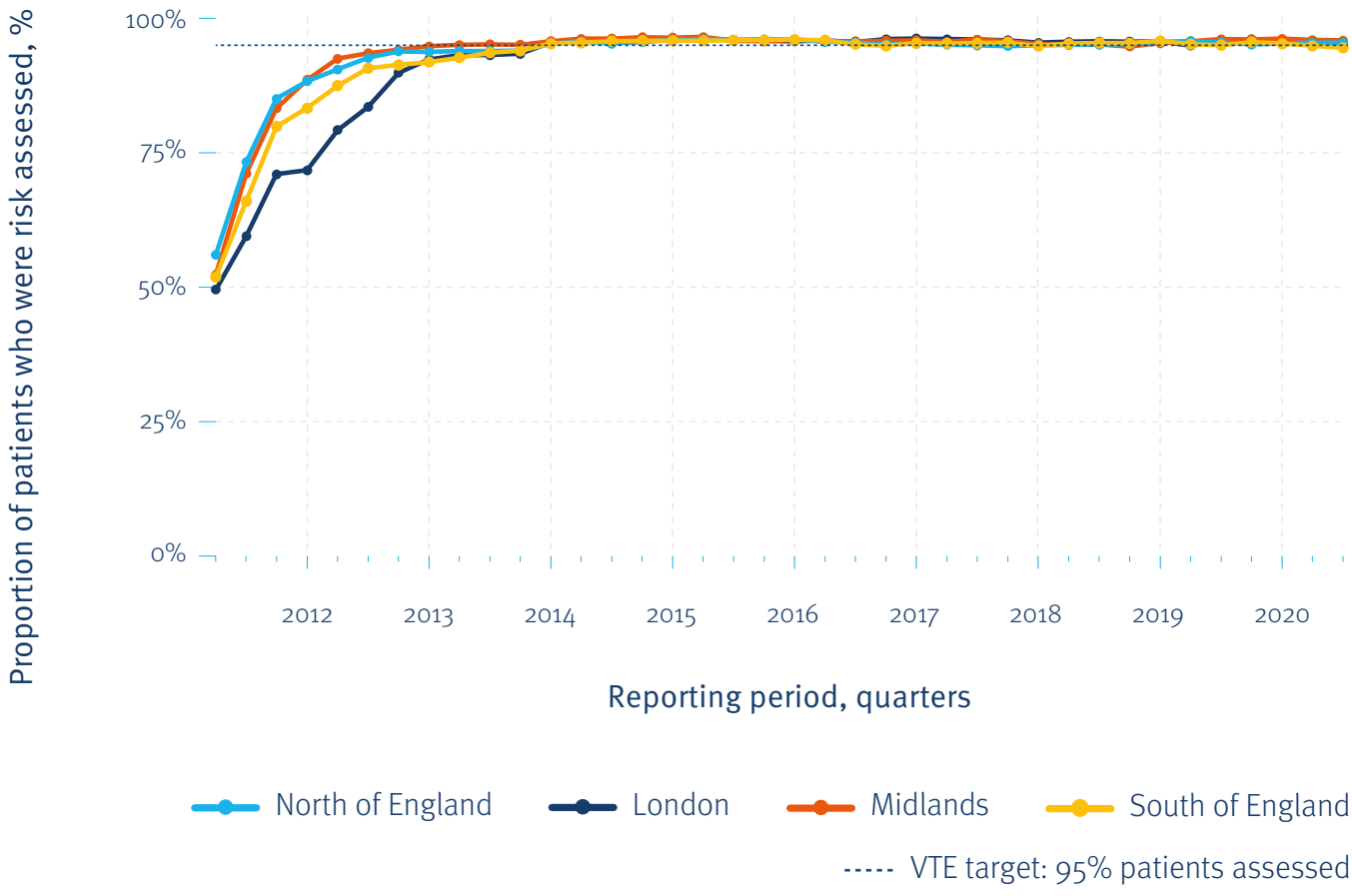


Figure 6a: The proportion of patients admitted to hospital who were risk assessed for VTE. The dashed blue line indicates the target for >95% of patients to receive an initial VTE assessment within 24 hours of admission.

In 2010, the National VTE Prevention Programme was launched in England, with the aim of ensuring that all adult patients admitted to hospital are risk-assessed for VTE and given appropriate preventative treatment in line with national guidelines.[57] Before it became mandatory for data on VTE risk assessment to be collected, the proportion of patients admitted to an acute NHS hospital who were risk-assessed was under 47% nationally. This figure rose dramatically, with the initial target of 90% first being met in November 2011.[58] Figure 6a shows that risk-assessment rates have been sustained across the regions of England and remain largely above the target set of 95%. Between 2012 and 2019, the rate of adult patients whose death related to VTE within 90 days of discharge from hospital fell from around 68 to 57 per 100,000 hospital admissions (Figure 6b). However, since around the start of the pandemic this figure has risen to 99 deaths per 100,000 hospital admissions by 2020/21, with no accompanying fall in the proportion of patients who were risk-assessed, suggesting the need for further work to understand the reasons for the increase.

Deaths from venous thromboembolism-related events within 90 days post discharge from hospital

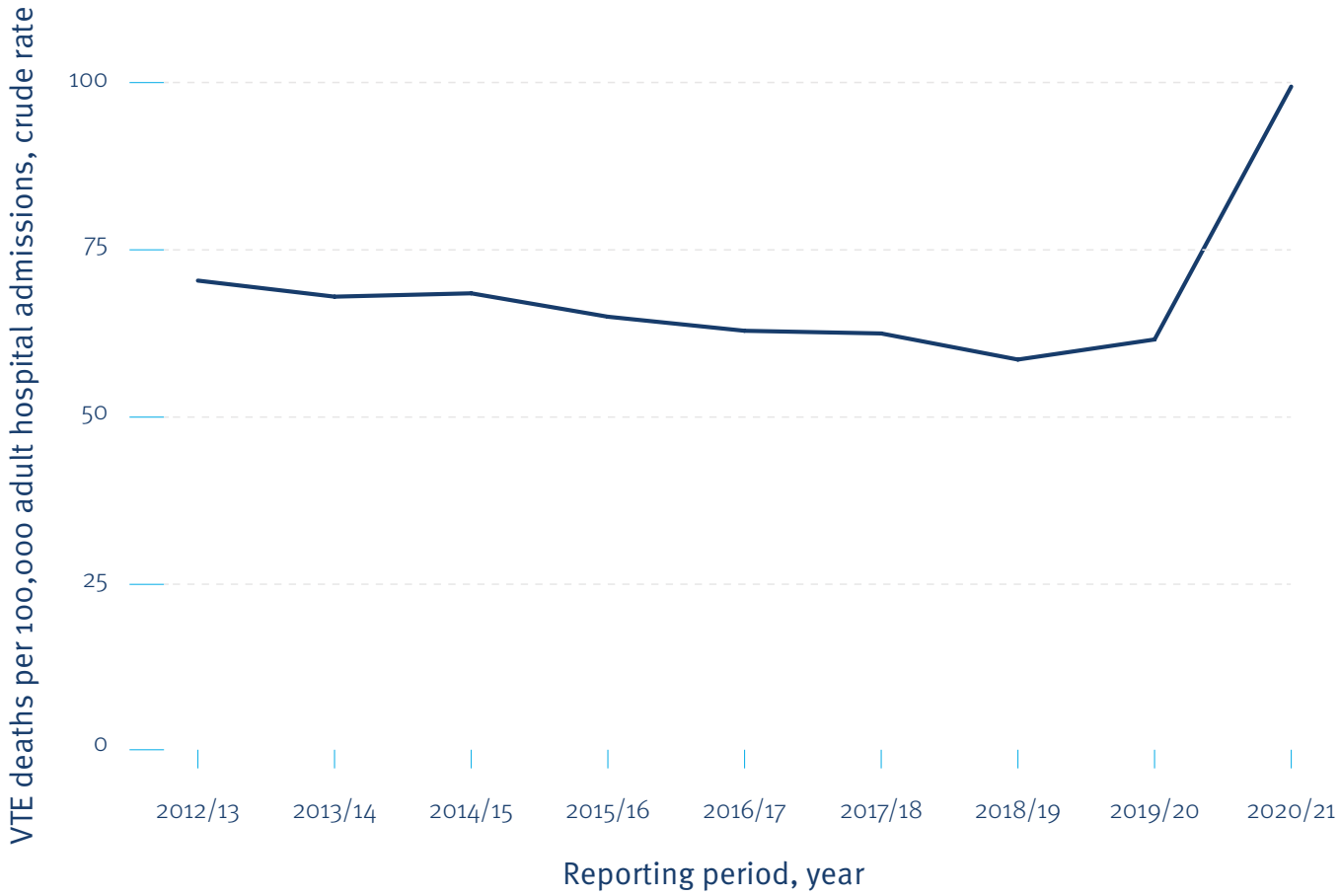


Figure 6b: Rates of deaths from venous thromboembolism-related events per 100,000 adult hospital admissions within 90 days post discharge from hospital.

Improving outcomes from hip fractures

Each year, approximately 247,000 patient falls are reported in hospitals in England, making it the most reported type of hospital incident.[59] Falls among older patients are more likely to result in harm, including hip fracture, which is the most common reason for emergency surgery and injury-related death in older people.[60] Inpatient falls cause an increased length of stay, loss of confidence, restricted physical activity, loss of independence and an increased risk of further falls.[61]

The National Hip Fracture Database, established in 2007, is an audit programme designed to facilitate improvement in the quality and effectiveness of hip fracture care by auditing care against evidence-based standards.[62] The continuous measurement of processes and outcomes enables local health economies to benchmark their performance against national data, and has led to reduced time to surgery and improved access to assessment by a geriatrician, both of which have been associated with a continual decline in mortality rates within 30 days for these patients[63] – from 8.2% in March 2012 to 6.6% by February 2020. Since the beginning of the pandemic, there has been a notable rise in mortality rates, followed by a sudden fall between December 2020 to March 2021.[64]

2.5 Healthcare-associated infections

Healthcare-associated infections (HAIs) are infections that develop as a direct result of medical or surgical treatment, or from contact in a healthcare setting. They can occur in hospitals, as well as community and social care settings, affecting both patients and healthcare workers.[65] HAIs often affect the most vulnerable patients, who are at increased risk due to the presence of underlying health conditions, or from undergoing certain treatments and procedures. High standards of infection prevention and control methods are essential to reducing the incidence of HAIs.

There are several HAIs that require monitoring for quality and safety purposes, the most common are as follows, and described in the sections below:

- *Clostridium difficile* (*C. difficile*)
- Methicillin-resistant *Staphylococcus aureus* (MRSA)
- Methicillin-sensitive *Staphylococcus aureus* (MSSA)
- *Escherichia coli (E. Coli).*

2.5.1 *C. difficile*

C. difficile is a bacterium that can cause an infection in the gut. A minority of adults carry *C. difficile* ordinarily and without any symptoms; this proportion increases as adults move into older age. The risk of the bacterium causing infection increases significantly from exposure to antibiotics.[66] Symptoms of infection can be debilitating, occasionally causing death.[67] In 2006[68] and 2007[69], the Healthcare Commission published two reports following investigations into outbreaks of *C. difficile* infections in two hospital trusts in England. In the wake of this increased public attention, and through the concerted efforts of healthcare workers and the impetus provided by national campaigns, rates of *C. difficile* infections (all cases) fell dramatically, from 148 cases per 100,000 bed days in 2007/08, to 38 cases in 2019/20. By 2020/21, rates had increased to 45 cases per 100,000 bed days, with hospital-onset rates following a similar trajectory (Figure 7).[70]

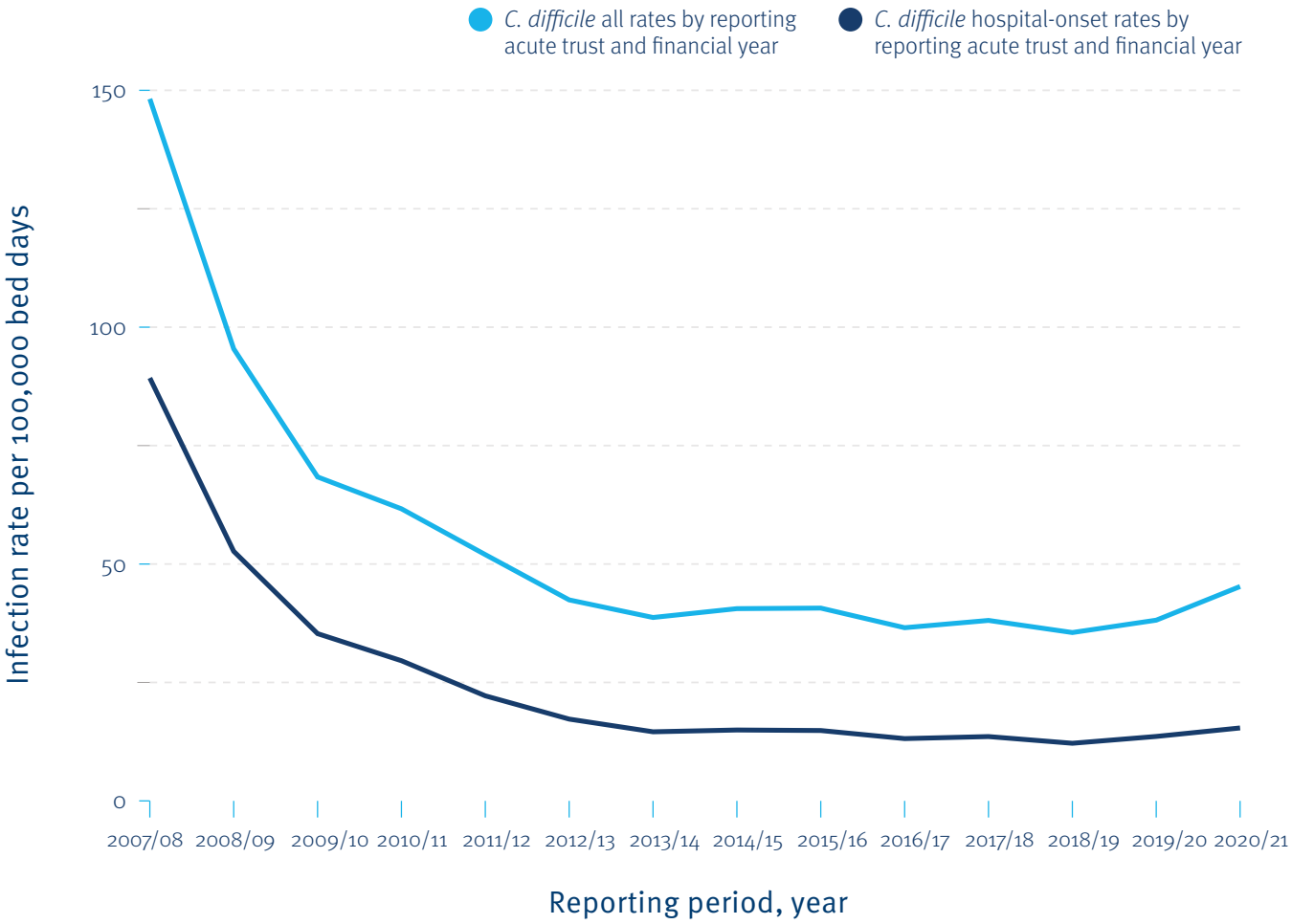


Figure 7: Rates of reported *C.difficile* between 2007/08 and 2020/21.

2.5.2 MRSA and MSSA

Staphylococcus aureus is a bacterium commonly found on the skin and in the nose, but one which can cause serious health problems if it gets deeper into the body. MRSA is the strain of the bacterium that is resistant to the most widely used antibiotics. A stay in hospital increases the risk of MRSA entering the body due to patients having wounds or burns, lines into their body as part of their treatment, or due to a susceptibility caused by their other health conditions.[71] In the early 2000s, stories about "hospital superbugs" put the issue centre-stage,[72] and as with *C. difficile*, a range of targeted actions saw dramatic reductions in rates of MRSA infections by the end of the decade, as shown in Figure 8. Between 2007/08 and 2019/20, rates of all cases fell from 12 to 2.4 per 100,000 bed days; by 2020/21, rates had risen slightly to 2.5 cases per 100,000 bed days. Hospital-onset rates have followed a similar trajectory since 2011/12 (earliest available data point).[73]

MSSA is a type of *Staphylococcus aureus* that, while capable of causing local and sometimes more serious infections, is sensitive to antibiotics and therefore easier to treat than MRSA. As shown in Figure 9, rates of MSSA infections (all cases) have steadily risen from 25 cases per 100,000 bed days in 2012/13 to 35 cases by 2019/20; then they increased further to 42 cases per 100,000 bed days by 2020/21. Hospital-onset rates increased as well, albeit less dramatically.[74] This, and other rises in hospital-onset infection rates may be due to the shift seen in hospital activity during the pandemic, but will require further monitoring and scrutiny.[75]

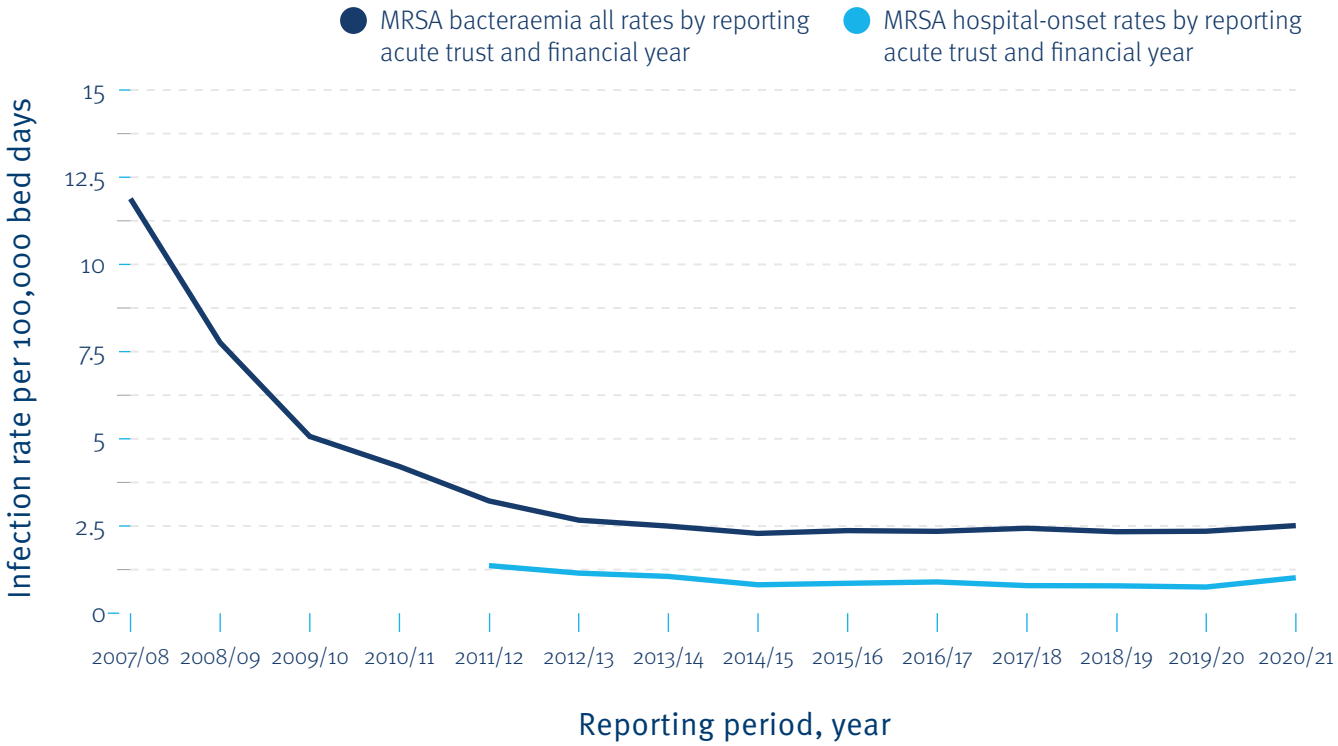


Figure 8: Rates of reported MRSA between 2007/08 and 2020/21.

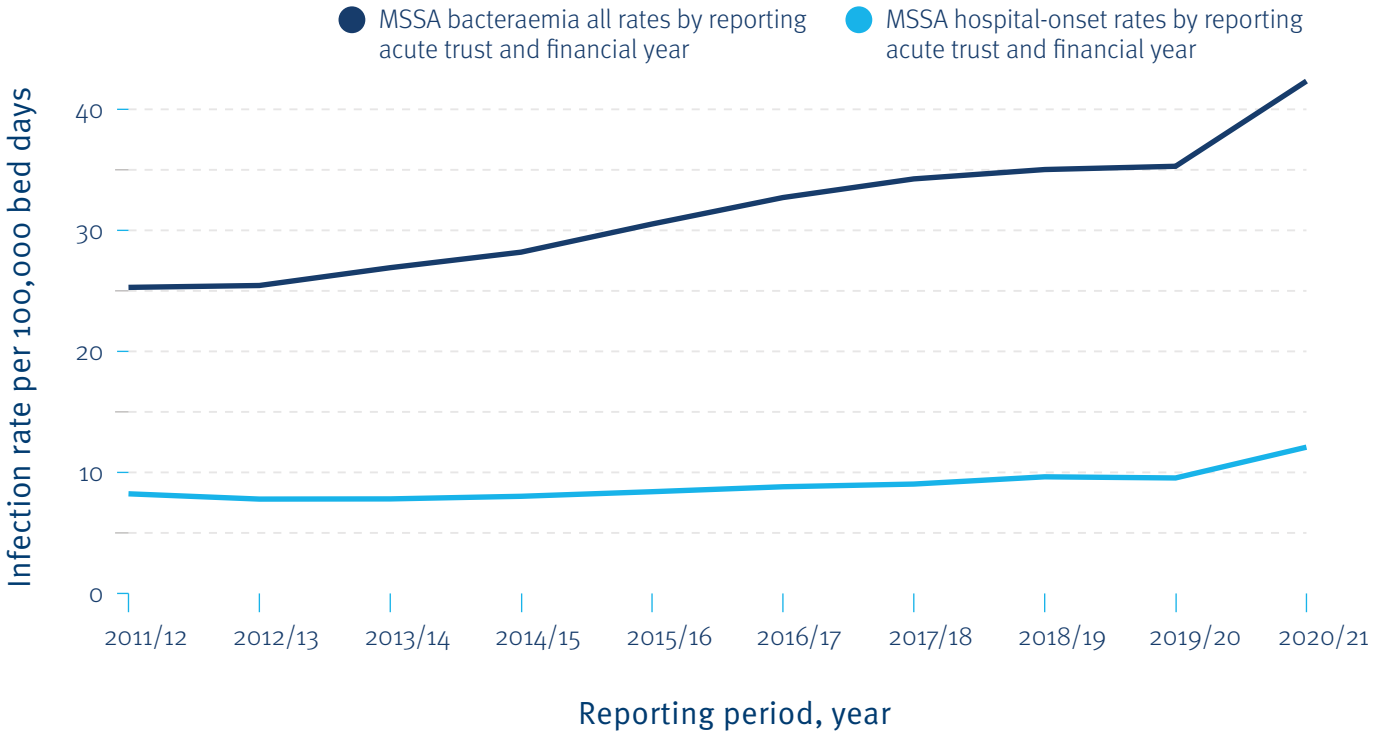


Figure 9: Rates of reported MSSA between 2011/12 and 2020/21.

2.5.3 *E. coli*

Escherichia coli (E. coli) is a type of bacteria found in the gut of most people. However, as with MRSA, if a harmful strain of the bacteria manages to enter the body, it can cause infection. As shown in Figure 10, rates of hospital-onset *E. coli* infections have remained relatively steady, while rates of all cases have risen consistently, from 95 cases per 100,000 bed days in 2012/13 to 125 cases by 2019/20; they then further increased to 133 cases per 100,000 bed days by 2020/21.[76] Some estimates suggest that up to half of *E.coli* infections contracted outside of hospital involved a recent healthcare (e.g. primary or community care) interaction, making this a patient safety issue.[77]

The dramatic reductions in rates of *C. difficile* and MRSA in England are an outstanding achievement, and one the NHS should be proud of. A range of national actions, combined with the dedication of staff, contributed to these reductions. Although it is not possible to say with any certainty which of these interventions were critical (such as improved hand hygiene and isolation procedures), perhaps the most influential was the introduction of mandatory reporting of cases of MRSA, which "quantified the problem and made it clear that action was needed across the NHS".[78]

A recent upturn in rates of these infections, combined with the lack of progress in tackling rates of *E. coli* and MSSA and rates of healthcare-associated cases of COVID-19 (estimated at around 1 in 6 cases amongst hospitalised patients during the first six months of the pandemic[79]), serves as a reminder of the importance of continually monitoring and responding to the data, to ensure the progress made in tackling these dangerous infections is maintained and built upon.

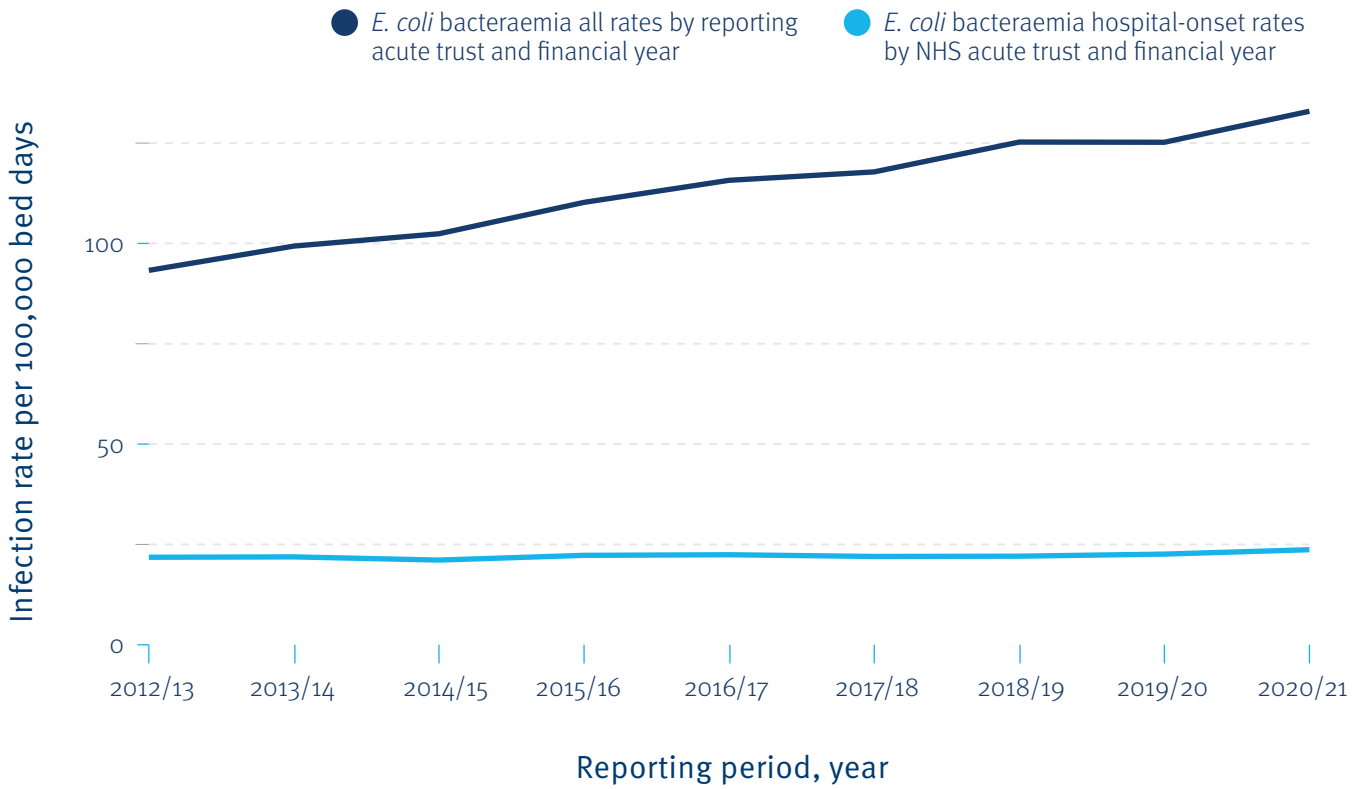
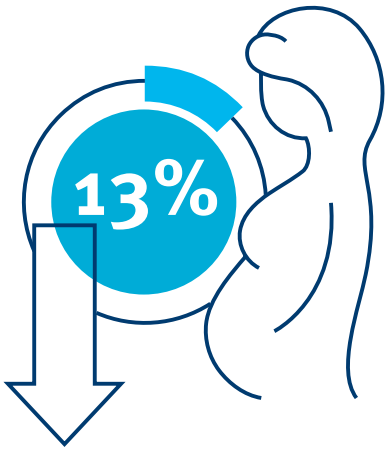


Figure 10: Rates of reported *E.coli* infection between 2012/13 and 2020/21.

2.6 Maternal and neonatal safety

Providing safe care to women and babies in pregnancy is a priority for all health systems, and the significant impact of complications and deaths that occur from maternity care should not be underestimated. Tragic events and high-profile hospital failures in recent years in England have provided the stimulus and moral imperative for major national improvement efforts. A vision for improving the safety of maternity services was set out in the Better Births report,[80] with a series of local and national activities to realise this vision co-ordinated through the Maternity Transformation Programme.[81] In 2017, the National Maternity Safety Ambition was set to reduce 2010 rates of stillbirths, neonatal deaths, maternal deaths and brain injuries in infants in England, by 50% by 2025.[82]

Between 2010–12 and 2017–19, rates of **maternal deaths in the UK fell by 13%**



2.6.1 Maternal deaths

Between 2010–12 and 2017–19, rates of maternal deaths in the UK fell by 13%, from 10.1 to 8.8 deaths per 100,000 maternities. In 2017–19, 191 women died during or up to six weeks after pregnancy from causes linked to their pregnancy, out of nearly 2.2 million women who gave birth in the UK.[83] Reviews undertaken as part of MBRRACE-UK – a UK-commissioned audit programme that collects data on deaths of mothers and babies – found that for 37% of the women who died, improvements in their care would have made a difference to their outcome. The most recent data also identified that women from Black ethnic backgrounds were four times more likely to die, and women from Asian or Mixed ethnicity backgrounds were almost twice as likely to die, compared to White women.[84]

In the UK, **stillbirth rates fell by just over 20%,** and **neonatal deaths fell by 12%** between 2013 and 2019

2.6.2 Stillbirths and neonatal deaths

Stillbirth is defined as the delivery of a baby at or after 24 weeks of pregnancy, who shows no sign of life. A neonatal death describes a baby born at or after 20 weeks who dies before they are 28 days old. Data collected through the MBRRACE-UK audit show that stillbirth rates in the UK fell by just over 20% between 2013 and 2019, from 4.2 to 3.4 per 1,000 births. During the same period, neonatal deaths in the UK fell by 12%, from 1.8 to 1.6 per 1,000 births.[85]

Between 2012–2014, the proportion of babies diagnosed with a brain injury rose before steadily falling again by 2019, **representing a fall of 9%**

2.7.3 Brain injury

Brain injury in infants caused during or soon after birth is a serious patient safety issue which can lead to long-term conditions later in life including cerebral palsy, blindness, deafness and learning difficulties. As part of work done by the Neonatal Data Analysis Unit at Imperial College London, consensus was reached for the first time in 2017 on how to calculate these rates, with a baseline established to help measure progress against the National Maternity Ambition. Between 2012 and 2014, the proportion of babies diagnosed with a brain injury rose from 4.2 to 4.6 per 1,000 live births, before steadily falling again to 4.2 per 1,000 live births by 2019, representing a fall of 9%.[86]

Maternity reviews and inquiries

In recent years, following the tragic deaths of women and babies under the care of NHS Hospital Trusts, there have been several reviews and inquiries into the safety and quality of maternity services.[87] These reports have prompted action, with the government each time introducing a range of measures at both the local and national level. However, some of the same issues continue to be reported in each subsequent investigation, raising questions about the ability of the system to learn from past problems. These issues include:

- Failure to recognise the nature and severity of the problem
- Failure to escalate a problem quickly
- Missed opportunities to intervene
- Inadequate response to concerns raised by relatives
- Significant staffing and training gaps across both midwifery and medical teams
- Poor relationships between staff groups
- Poor quality investigations that did not adequately address concerns, involve families, or implement the necessary changes
- Voices of women not being heard.

A recent investigation by the charity Birthrights into the injustice in maternity care for women from Black, Asian and Mixed ethnicity groups, where they heard from women's experiences alongside testimony from health professionals, found recurring themes around feeling unsafe, concerns being dismissed, complaints of pain being ignored due to racial stereotyping, and microaggressions causing harm and distress.[88]

Maternity services in England continue to face significant challenges, which have been exacerbated by the COVID-19 pandemic and by the numbers of midwives leaving the service. A recent Health and Social Care Committee report stated that NHS maternity units in England will need investment of £200–350 million to prevent women and babies from dying or experiencing avoidable harm.[4] The report also stated that, if the rate of improvement in maternity safety matched that in Sweden, approximately 1,000 more babies would survive each year.

[4] These reviews include the Cumberlege review 2016 (National Maternity Review), Kirkup review 2015 (Morecambe Bay), Ockenden Review 2020 & 2022 (Shrewsbury and Telford), and Kirkup Review 2021 (East Kent).

2.7 Summary

There are several interpretations of the term avoidable deaths in healthcare, and there is no single measure or data source that provides a definitive number of deaths that are solely attributed to problems in care. While each potentially avoidable death is a tragedy to be learned from, researchers emphasise the need to use a much broader array of data beyond death rates to identify opportunities for improvement, given the relatively low proportion of estimated deaths due to problems in care. However, regional variations in mortality rates illustrate the continued importance of monitoring and publishing such data, and identifying the causes of such variation.

The success of initiatives to improve outcomes for patients in specific areas of care, such as for patients with VTE and hip fractures, and the dramatic reductions in rates of some HAIs, shows what can be achieved when healthcare policy and practice are aligned, coupled with the dedicated efforts of frontline staff. However, there are some warning signs in these data, with some rates beginning to rise again, underlining the need to maintain a constant focus across all domains of safety.

There have been some notable improvements in the safety of women and babies, with overall reductions in rates of stillbirths, neonatal deaths, babies diagnosed with brain injury, and maternal deaths, which can be attributed to the various national initiatives introduced in England in recent years.[89] However, current rates of improvement suggest it is unlikely that the Government will achieve its own targets in these areas by 2025. Improving the outcomes and experiences for women from Black, Asian and Mixed ethnicity groups, is a pressing priority, in the context of worsening workforce shortages and a maternity litigation bill accounting for nearly 60% of all claims by value in the NHS.[90]

3. Patient perspectives on safety

Key messages

- National patient survey results present a mixed picture on key aspects of safety since 2010.
- There have been perceived improvements in areas including hospital cleanliness, communication from clinicians, and confidence in the clinicians providing treatment – figures which rose further during the pandemic, which is a testament to the dedication of staff during this time.
- However, there are warning signs in the most recent available data (2019) which relate to the availability of staff: two in five patients in hospital did not agree that there were always enough nurses on duty to care for them; only one in three patients reported always being able to find someone on the hospital staff to talk to about their worries and fears.
- Approximately half of patients in 2020 reported feeling they received enough support after leaving hospital to recover and manage their condition.
- Community mental health patients in 2021 reported that only around half of the time were they involved as much as they wanted to be in their care, and got the help they needed if they experienced a crisis out of hours.

The data presented up to this point have focused largely on measures of harm reported by clinicians and other healthcare workers. These data are important, but only provide part of the picture. In this section, data are presented from the patient perspective, covering topics including perceptions of cleanliness, communication with staff, confidence in the clinicians treating them, staffing levels, care provided after discharge, and involvement in care and decisions.

Several mechanisms are in place to capture patient feedback on the quality and safety of healthcare services in the NHS in England,[5] while new independent platforms[6] enable the sharing of experiences of care – both positive and negative – in the public domain. Despite this growth in opportunities for patients to provide feedback on their care, the challenge remains in how this data can be used to support change both at a local and national level.

This section of the report presents data from the NHS Patient Survey, the most comprehensive and consistently reported survey of its kind in England. Findings are reported from two of the five surveys conducted – the Adult Inpatient Survey and Community Mental Health Survey – as they offer the most complete longitudinal data.[7] In Section 5, findings on people's experiences during the pandemic are also presented from the national inpatient and maternity surveys.

3.1 Adult Inpatient Survey

The Adult Inpatient Survey captures the experiences of adults who have been admitted to an NHS hospital. The latest survey for which data is available is 2020, though in some places we refer to 2019 figures, either because the question was not asked in 2020 or because there were changes in the way it was asked. The 2020 survey involved 137 NHS Trusts in England. Responses were received from 73,015 patients, a response rate of 46%.[91] Data were collected between January 2021 and May 2021.[8] The results are presented below under the five broad categories of cleanliness, communication with clinicians, confidence in clinicians, staffing levels, and care after discharge – categories which we consider to be most closely connected to patient safety.

[5] Such mechanisms include the Friends and Family Test, where patients are asked how satisfied they were with their overall experience of the service, providing a score ranging from "very good" to "very poor".

[6] An example includes Care Opinion.

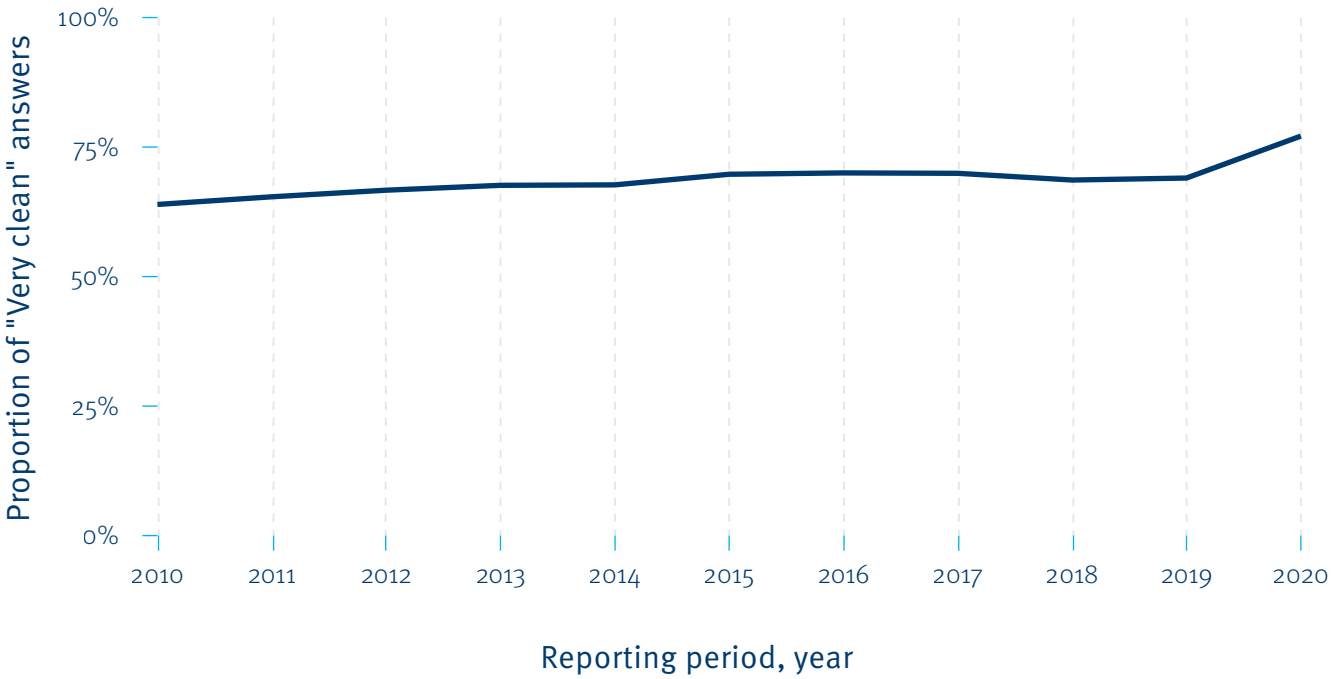
[7] The other surveys that form part of the national patient survey programme cover Children and Young People's services, Maternity services, and Urgent and Emergency Care.

[8] Patients eligible for the survey were those aged 16 years or older, had spent at least one night in hospital and were not admitted to maternity or psychiatric units.

3.1.1 Cleanliness

Between 2010 and 2019, the proportion of patients reporting that the hospital room or ward that they were in was “very clean” increased from just under 64% to 69%; this rose to 77% in 2020 (Figure 11). This increase, coupled with the low rates reported for HAIs during the same period (see Section 2.5) illustrate the progress made during this time in infection control and prevention due to the continued efforts of healthcare workers.

How clean was the hospital room or ward that you were in?*



*** 2010–19: Q16:** How clean was the hospital room or ward that you were in?
2020: Q8: In your opinion, how clean was the hospital room or ward that you were in?

Figure 11: Proportion of respondents reporting that their hospital room or ward was “very clean” in the patient survey. Note: the wording in this question changed slightly in the 2020 survey and part of the variation in the results could be attributed to it.

3.1.2 Communication with clinicians

Feelings of psychological safety in hospital can be helped, or hindered, by the quality of communication from clinicians. Approximately two-thirds of patients in 2019 said that they received answers they could understand from doctors (66%) and nurses (68%) when they had a question to ask – these figures have been steadily rising since 2010. During the same period, fewer patients also reported feeling that doctors talked in front of them as if they weren’t there (76% said no in 2019 compared to just under 71% in 2010).

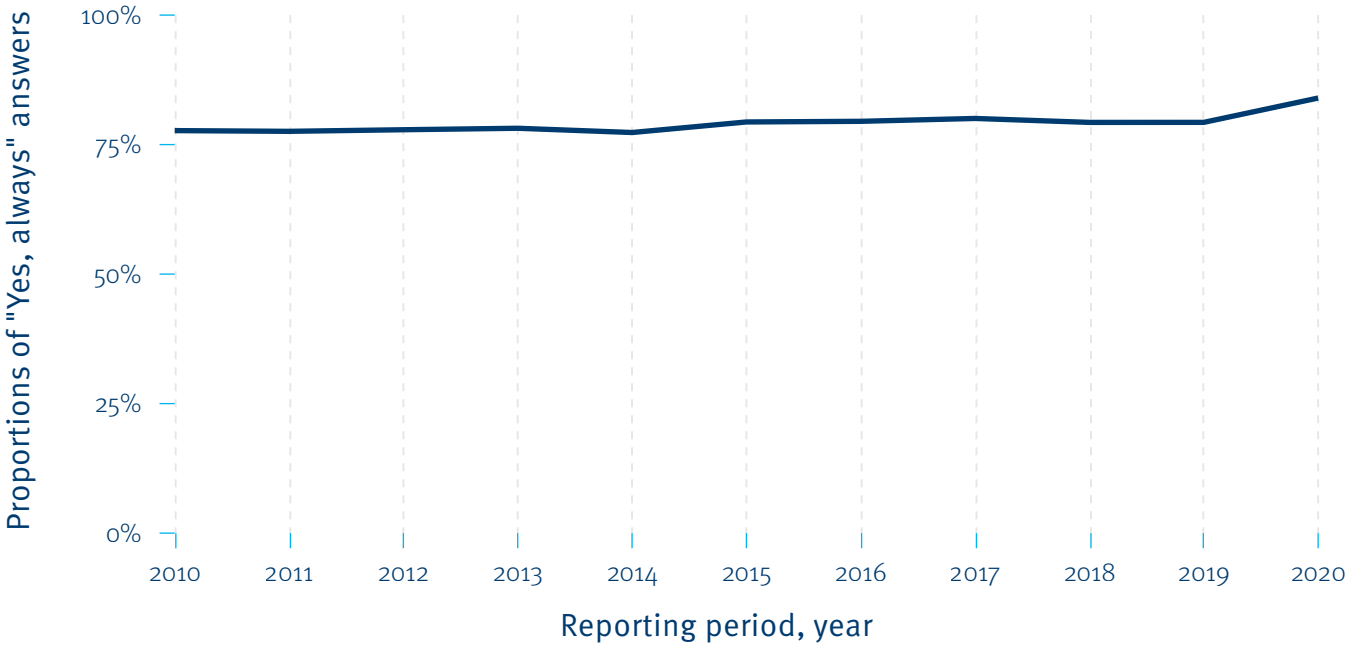
3.1.3 Confidence in clinicians

Confidence of patients in the clinicians treating them is affected by a wide range of factors, but provides a strong overall indication of the quality and safety of care provided in the ward or hospital room. These figures have risen steadily for doctors and more notably for nurses since 2010. Nearly four out of five patients had confidence in the doctors (79%) and nurses (77%) treating them in 2019; this rose to 84% in 2020 for doctors and 83% for nurses.

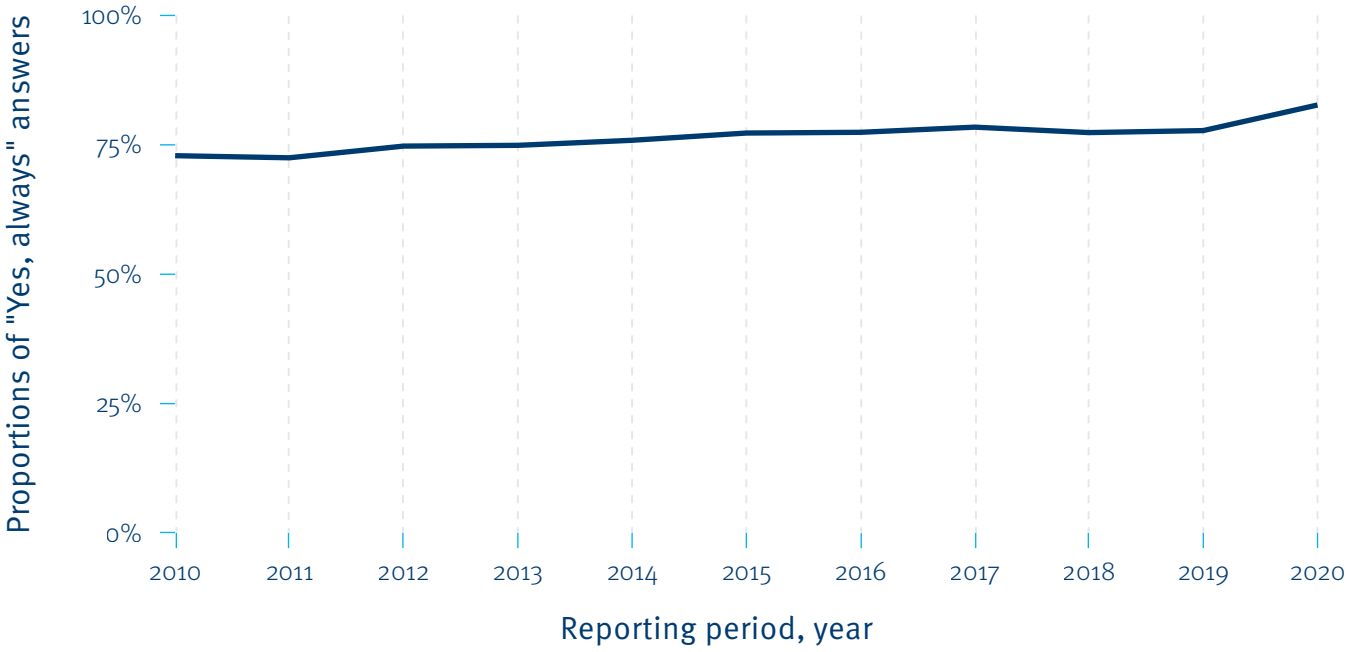
** **2010–19: Q24:** Did you have confidence and trust in the doctors treating you?
2020: Q16: Did you have confidence and trust in the doctors treating you?

*** **2010–19: Q27:** Did you have confidence and trust in the nurses treating you?
2020: Q19: Did you have confidence and trust in the nurses treating you?

Did you have confidence and trust in the doctors treating you?**



Did you have confidence and trust in the nurses treating you?***



Figures 12a and b: Proportion of respondents reporting that they always had confidence in the doctors and nurses treating them respectively.

3.1.4 Staffing levels

Adequate staffing levels are an integral part of providing safe care to patients,[92] and despite a range of new initiatives and resources to support safer staffing,[93] recruitment and retention remain major concerns for care providers and patients alike. In 2019, around two in five patients felt that there weren't always enough nurses on duty to care for them – this figure has stayed broadly constant during the reporting period. At the same time, there has been a fall in the proportion of patients who said they could always find someone on the hospital staff to talk to about their worries and fears – from more than 39% in 2010 to just over 36% in 2019. Around three-quarters of patients have consistently reported that they felt the members of staff caring for them worked well together.

3.1.5 Care after discharge

To understand patient safety from the patient's perspective, it is important to capture information about their care over time and in different care settings.[94] The Adult Inpatient Survey asks patients about some aspects of their care after leaving hospital. Approximately half of patients felt they got enough support after leaving hospital to recover and manage their condition – a figure which fell slightly between 2016 and 2020, although this may be partially attributed to the wording of the question having changed slightly during this period.

During the same period, there have also been slight falls in the proportion of patients who felt completely informed about medication side effects (from 39% in 2015 to 37% in 2019) or about danger signals to watch for when they went home (from more than 42% in 2015 to just over 40% in 2019).

3.2 Community Mental Health Survey

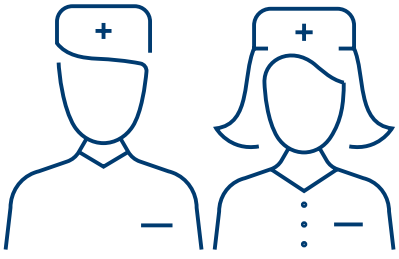
The Community Mental Health Survey captures the experiences of people who receive care in the community for a mental health condition. The latest survey for which data are available is 2021. It involved 54 NHS Trusts in England. Responses were received from 17,322 service users; a response rate of 26.5%. Questionnaires were sent out between February 2021 and June 2021.[95] COVID-19 had a significant impact on the way services were delivered during this time, which has been taken into account in how the trends are reported.

3.2.1 Involvement in care and decisions

Involving people with mental health conditions in aspects of their care, and decisions about their care, is a fundamental principle that can help to improve their feelings of safety and their health outcomes.[96] 52% of people surveyed in 2021 felt they were involved as much as they wanted to be in agreeing what care they will receive – a fall from 56% in 2014 . In 2021, 61% of respondents felt that decisions were made together with a health professional during discussions about their care.

3.2.2 Accessing care

In the 2020 survey, two specific questions were introduced around accessing care when needed. Nearly 74% of patients surveyed said they would know who to contact out of office hours if they experienced a crisis, and just under half stated they definitely got the help they needed when contacting this person or team.



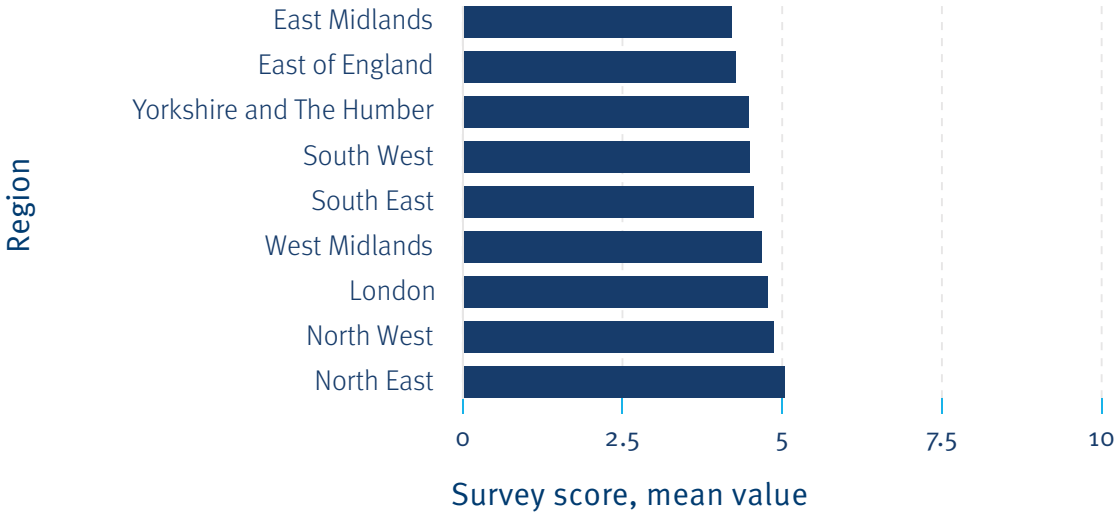
In 2019, around **two in five patients** felt that there weren't always enough nurses on duty to care for them.

3.3 Illustrating regional variation

As part of our analysis, survey data were analysed for variation between different regions of England. There are additional challenges when comparing data that is aggregated at a regional level; at the same time, it is useful to highlight areas where some regions could learn from those performing particularly well. For example, Figures 13a and b show that the North East of England is performing slightly better than any other region for patients feeling informed of potential side effects of their medication in both inpatient and community mental health services. Examples of positive deviance like this should be explored further to understand their causes and potential for learning opportunities across the country.

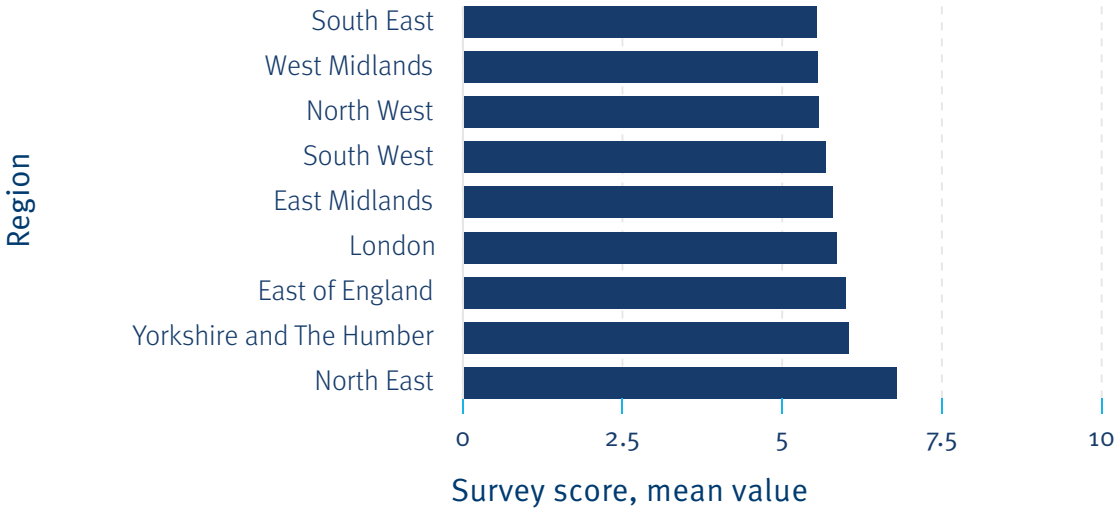
Adult Inpatient Survey – 2019

Q58: Did a member of staff tell you about medication side effects to watch for when you went home?



Community Mental Health Survey – 2019

Q21: Have the possible side effects of your medicines ever been discussed with you?

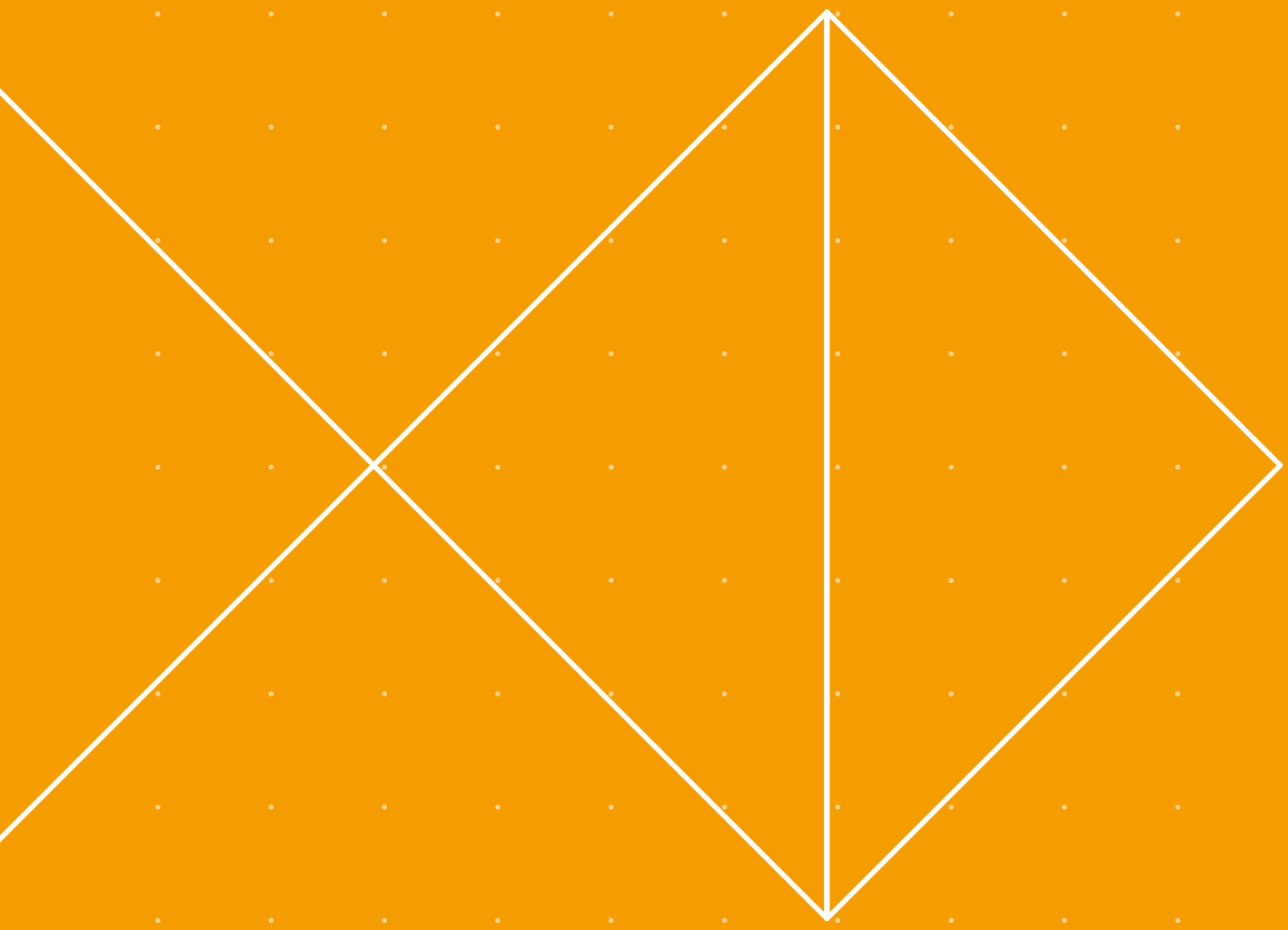


Figures 13a and b: Proportion of respondents who agreed that staff warned them about possible side effects with their medication in the inpatient and community mental health surveys respectively, by region.

3.4 Summary

Patient perspectives provide a valuable insight into the quality and safety of care, and sometimes early indicators of risks within healthcare systems. The Adult Inpatient Survey shows perceived improvements in key aspects of safety such as cleanliness, communication from clinicians, and confidence in those caring for them on the one hand; whilst on the other hand there are some warning signs around perceptions of insufficient nurses on duty, patients being unable to find somebody to talk to about their worries and fears, and a lack of access to care and information after discharge – an issue which was further reflected in responses during the pandemic. The Community Mental Health Survey analysis highlights the importance of making every effort to involve people in decisions about their care – an aspect of care that can contribute to feelings of psychological safety for particularly vulnerable members of the population.

4. Staff perspectives on safety



Key messages

- Staff survey results present a mixed picture on staff perceptions of safety since 2016.
- In 2021, three quarters of staff reported that they would feel secure raising concerns about unsafe clinical practice in their organisation – a figure that has risen by almost five percentage points since 2017.
- There are positive overall trends between 2016 and 2020 in perceptions from staff of how their organisation responds to, and treats staff involved in, errors, incidents and near-misses.
- Despite a gradual improvement of 13% between 2016 and 2020, two in five staff still did not agree that they would be treated fairly when errors, incidents or near misses occur.
- Staff working in ambulance services consistently report more negatively on survey questions relating to patient safety.
- Staff from Black and minority ethnic groups experience higher rates of harassment, bullying and abuse from both patients and the public (29% and 27%, respectively), and colleagues (27% and 23%, respectively), compared to White staff.

4.1 NHS staff survey

To generate a picture of staff-reported measures of safety, this section (and Section 5) provides an analysis of results from the NHS Staff Survey – the largest single source of NHS staff opinion in England. The latest survey for which data is available is 2021, although some questions discussed below were not included in the 2021 survey. In those instances, data from the 2020 survey is used. The 2021 survey was conducted between September and December 2021. Responses were received from 648,594 members of staff, a response rate of 48%.[97] The 2020 survey was conducted between October and November 2020. Responses were received from over 595,000 staff, a response rate of 47%.[98]

Results from the questions most relevant to patient safety are described below, covering three broad areas: errors, incidents and near misses; reporting unsafe practice; and harassment, bullying and equality. Research from Imperial College London has shown that positive NHS Staff Survey results are associated with an NHS Trust being classified as *good* or *outstanding* for safety by the CQC.[99]

Proportion of trusts rated Good or Outstanding for safety by the CQC in their latest available report:

December 2015 - **13%**

May 2022 - **40%**

4.1.1 Errors, incidents and near misses

The Staff Survey asks a range of questions related to staff experiences and perceptions of patient safety incidents, errors and near misses (where an incident or error almost, but does not, occur). As shown below, there has been a welcome increase in the proportion of staff feeling that their organisation takes action to prevent the same incident from happening again (Figure 14), and in staff feeling that they are treated fairly when incidents occur (Figure 15) – that said, two in five healthcare workers still do not agree that they are treated fairly in such circumstances. Staff from ambulance services report more negatively on these questions, but show a similar upward trend.

When errors, near misses or incidents are reported, my organisation takes action to ensure that they do not happen again

% of staff who 'agree' or 'strongly agree'

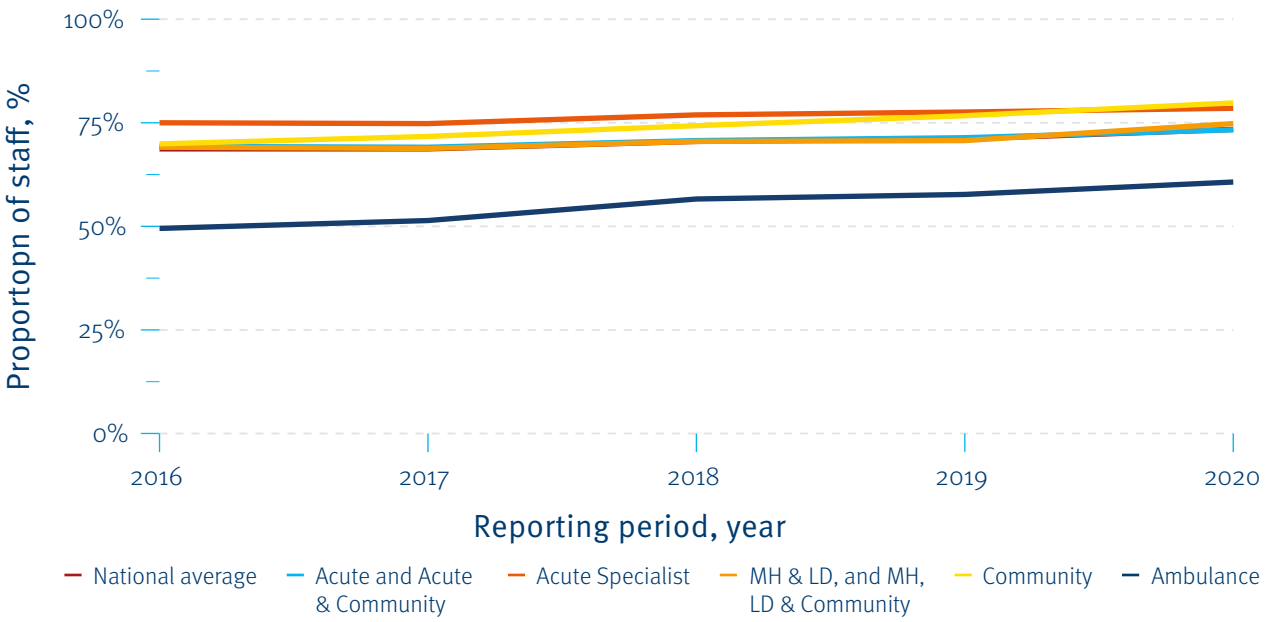


Figure 14: Proportion of respondents who agree or strongly agree that their organisation takes action to ensure errors, near misses and incidents do not happen again. Note – these questions were not asked as part of the 2021 survey, results shown here are from the 2020 survey.

My organisation treats staff who are involved in an error, near miss or incident fairly

% of staff who 'agree' or 'strongly agree'

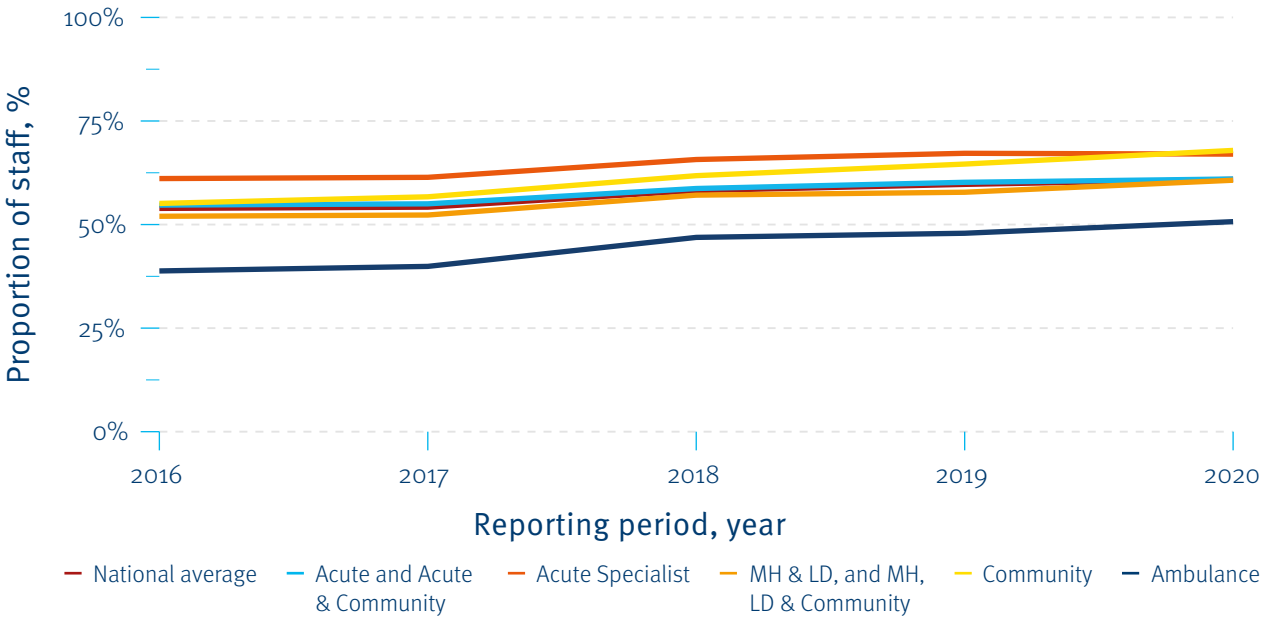


Figure 15: Proportion of respondents reporting that they agree or strongly agree their organisation treats staff involved in errors, near misses and incidents fairly. Note – these questions were not asked as part of the 2021 survey, results shown here are from the 2020 survey.

4.1.2 Reporting unsafe practice

Three-quarters of staff on average report that they would feel secure raising concerns about unsafe clinical practice, a figure that has steadily increased since 2016 across all care settings. Similar figures are reported for staff feeling like their organisation would address their concerns (Figure 16), and concerns raised by patients and service users (Figure 17) – though the latter figure dropped from nearly 75% to 72% in 2021 for the national average.

I am confident that my organisation would address my concern

% of staff who 'agree' or 'strongly agree'

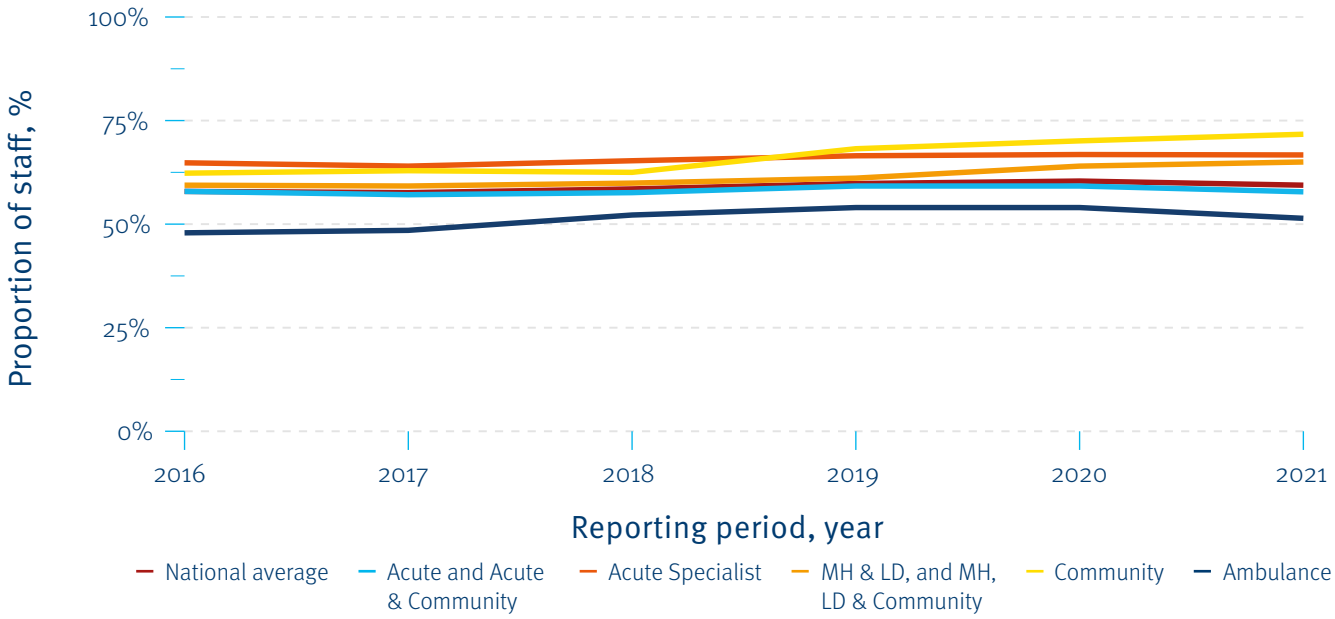


Figure 16: Proportion of respondents reporting that they agree or strongly agree their organisation would address their concern.

My organisation acts on concerns raised by patients/service users

% of staff who 'agree' or 'strongly agree'

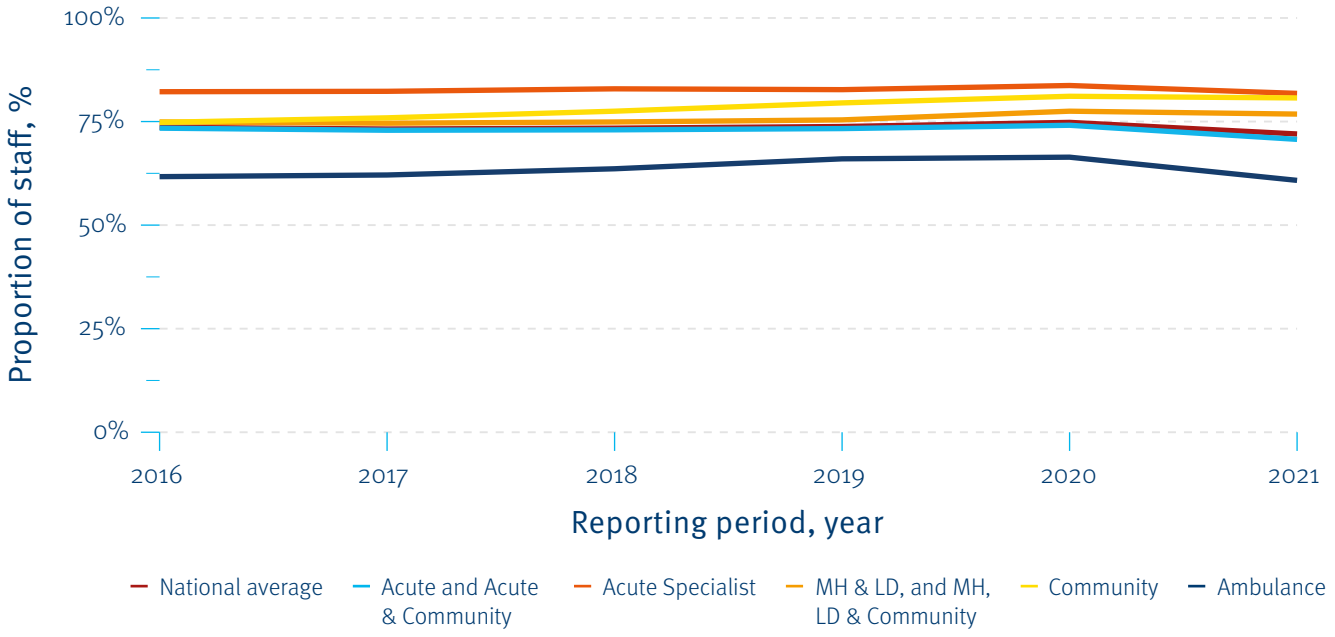


Figure 17: Proportion of respondents reporting that they agree or strongly agree their organisation acts on concerns raised by patients or service users.

4.1.3 Harassment, bullying and equality

A motivated, inclusive and valued workforce contributes to the delivery of high-quality patient care, increased patient satisfaction and improved patient safety.[100] However, concerns have been identified about the extent to which "acceptance of discrimination, bullying, blame cultures and responsibility avoidance has almost become normalised in certain parts of the system…".[101] The NHS Staff Survey in 2021 found that around a quarter of staff reported experiencing harassment, bullying or abuse from patients, relatives or the public (Figure 18), as well as from colleagues (Figure 19). Staff from Black and minority ethnic groups experience higher rates of harassment, bullying and abuse from both patients and the public (29% and 27%, respectively), and colleagues (27% and 23%, respectively), compared to White staff.

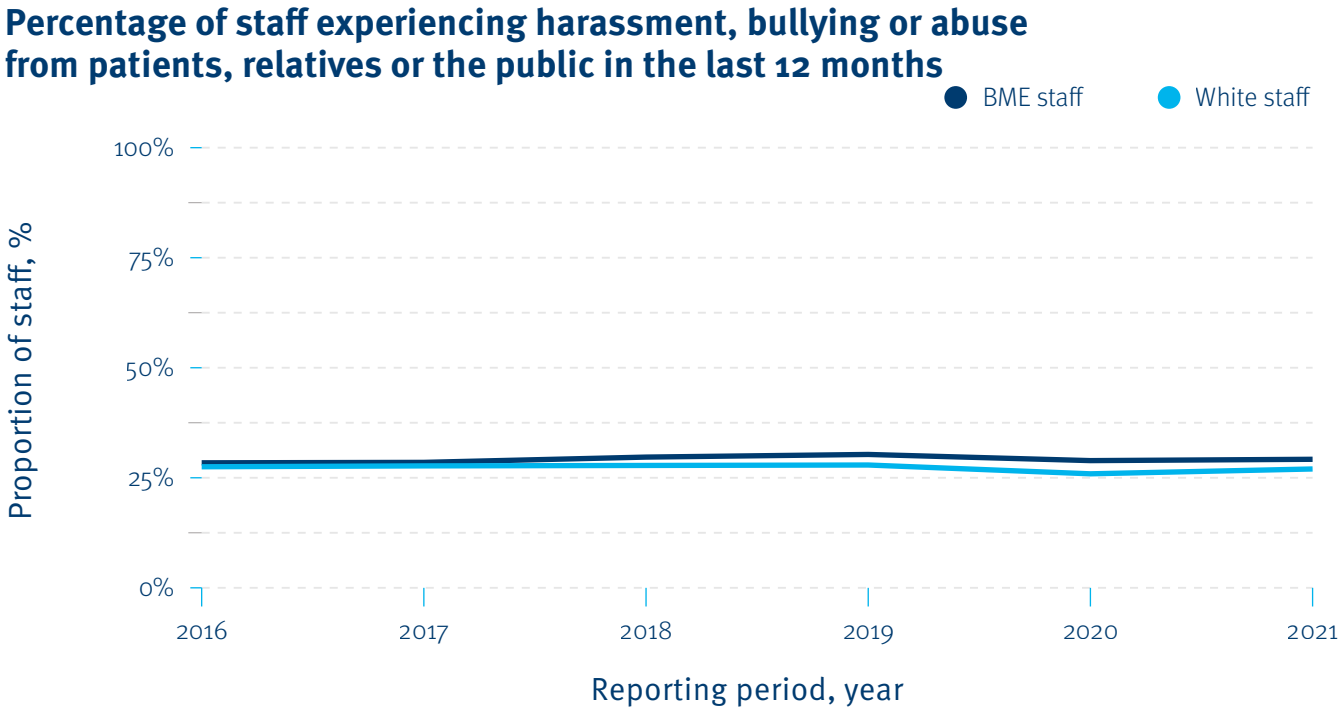


Figure 18: Proportion of respondents reporting that they experienced harassment, bullying or abuse from patients, relatives or the public in the last 12 months.

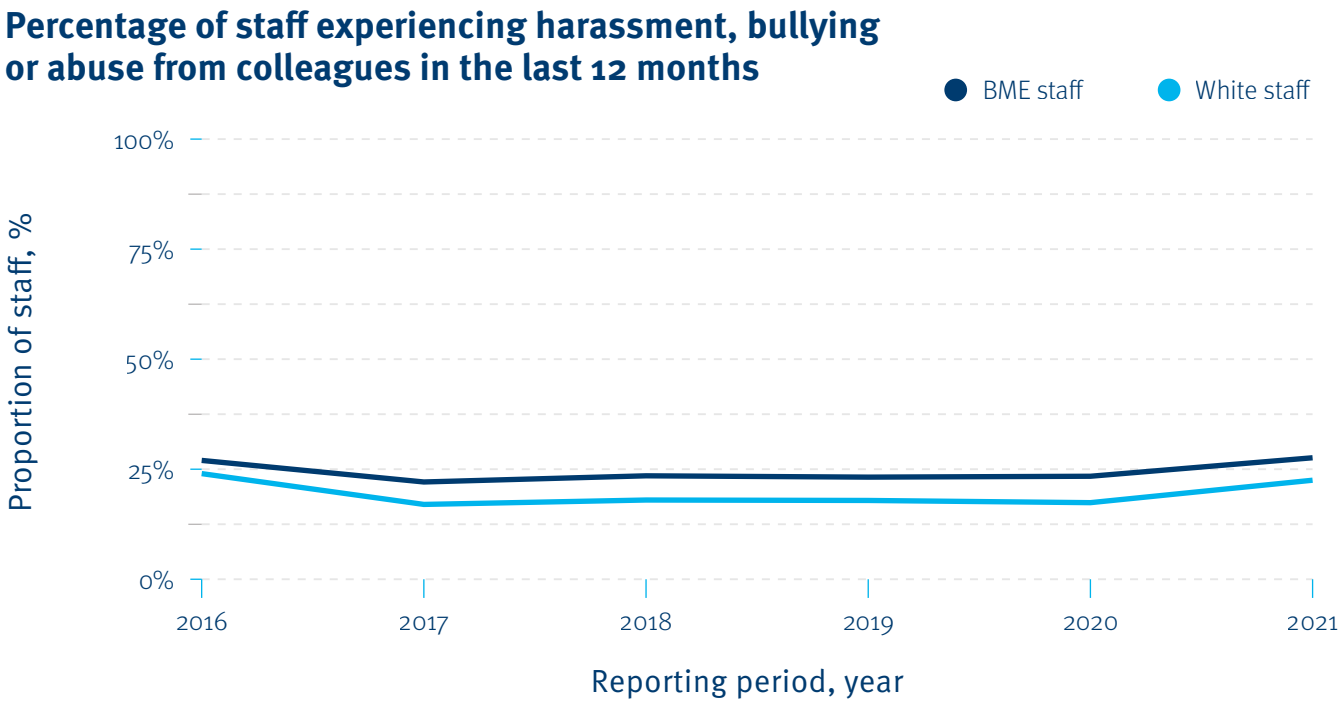


Figure 19: Proportion of respondents reporting that they experienced harassment, bullying or abuse from colleagues in the last 12 months

4.2 Summary

As with the data analysed from the Patient Survey, the Staff Survey presents a complex picture when it comes to perceptions of safety. Overall, there are positive trends reported by staff in how their organisation approaches the reporting of, and response to, clinical incidents and unsafe practice – this is an important finding, and a reflection of the efforts to foster a more positive safety culture in the NHS. However, a significant proportion of staff still feel they would not be treated fairly when errors or incidents occur, and staff working in ambulance services report more negatively across the board on questions relating to perceptions of safety. Staff from Black and minority ethnic groups experience higher rates of harassment, bullying and abuse from both patients and colleagues compared to White staff, reaffirming the importance of addressing inequalities in the workforce.

5.
Indirect impact of COVID-19 on patient safety

Key messages

- The NHS workforce entered the pandemic already experiencing high rates of work-related stress and burnout, a trend which has accelerated since the onset of the pandemic. In 2021, almost half of respondents to the NHS Staff Survey reported feeling unwell due to work-related stress during the previous 12 months.
- 34% of staff reported always or often feeling burnt out because of work in 2021; for staff in ambulance trusts, this figure was 48%.
- The NHS entered the pandemic with around 84,000 vacancies; as of June 2022, this figure stood at more than 130,000. Respondents to the NHS Staff Survey who felt there were enough staff at their organisation to do their job properly fell from 38% in 2020 to 27% in 2021.
- More than two in five respondents to the GP survey said they avoided making an appointment in the previous 12 months, with nearly 20% of those people doing so because they were worried about the burden on NHS services.
- The number of people waiting for planned care as of March 2022 stood at more than 6.3 million in England – a figure which has grown by more than 40% since February 2020.
- More than half of respondents to a survey reported that waiting for their care affected their mental health. The safety of patients, including their psychological safety, while they wait to access care is a priority area for further research.
- The proportion of patients waiting more than four hours in A&E has increased from just under 15% in April 2019 to over 25% in March 2022.
- The proportion of ambulance handovers experiencing a delay of more than 30 minutes increased from 12% in 2019 to 21% in 2022.
- Ambulance response times have worsened since the onset of the pandemic for Category 2 calls (potentially serious conditions). The most recent data, for April 2022, showed a difference in average response times of 47 minutes between regions.
- Along with delays in the diagnosis of some long-term conditions, there are likely to be longer-term consequences on patient safety and outcomes resulting from issues associated with accessing care.
- COVID-19 restrictions, combined with a lack of clear guidance and information, contributed to feelings of anxiety and distress for women during their pregnancy.
- The adoption of innovations, including online consultations and remote monitoring technology, accelerated during the pandemic – however further research and continuous evaluation is needed to fully understand their safety implications.

The COVID-19 pandemic has placed unprecedented strain on health systems, and indeed all aspects of society, across the world. The direct health impact of the pandemic in England is evident from the data – as of July 2022, nearly 19 million people had tested positive, over 155,000 people had lost their lives,[102] and an estimated 1.8 million people had reported experiencing long COVID symptoms.[103] What is less evident from the data is the *indirect* impact of COVID-19 from a patient safety perspective. In other words, have healthcare services become less safe due to changes in the way services are designed or delivered? The short answer is yes, due in large part to the pandemic's impact on timely, and sometimes equitable, access to healthcare services – whether that is access to a GP, a specialist, a paramedic, or an emergency care doctor. However, it is important to acknowledge that many of these changes to services were considered necessary to contain the spread of infection and mobilise the delivery of the vaccination programme.

This chapter presents data on where the pandemic has exacerbated problems associated with accessing or delivering healthcare services safely. The available data relates predominantly to healthcare activity, rather than outcomes for patients, therefore the impact on patient safety is inferred – addressing this gap in the data is a challenge that the research and policy community must respond to. Insights and analysis are also presented across other domains on safety, including the overall impact on mortality, on the wellbeing and psychological safety of healthcare workers and patients, and on medication safety – the theme for the 2022 World Patient Safety Day.

5.1 Excess deaths

Excess deaths refers to the difference between the number of observed deaths and those that would have been expected in the absence of the pandemic.[104] Excess deaths can be a helpful measure to understand the *indirect* impact on mortality due to the pandemic. For instance, it can capture those people who died as a result of health systems becoming overwhelmed, or from people avoiding care.[105]

Figure 20 shows the number of excess deaths between March 2020 and December 2021 in England, both including and excluding deaths due to COVID-19.[106]

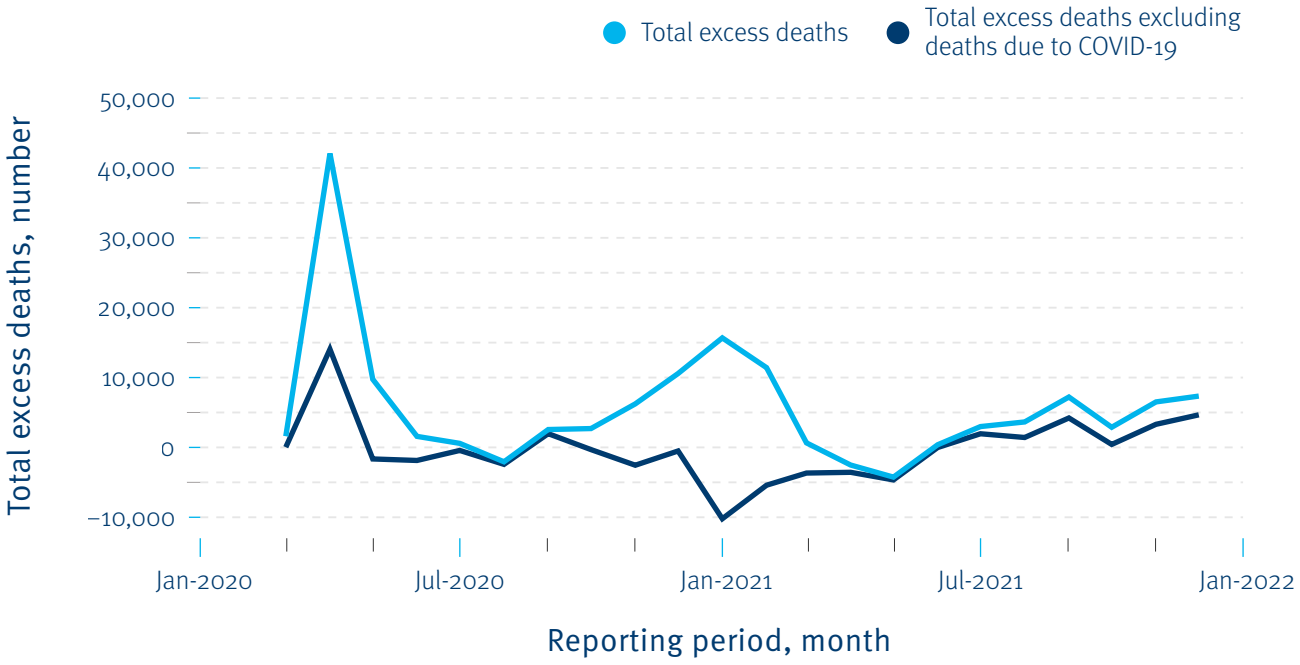


Figure 20: Total excess deaths, including and excluding deaths due to COVID-19.

The pattern of total excess deaths illustrates the deadly impact of the pandemic, broadly across three waves in spring 2020, winter 2020, and autumn/winter 2021. The pattern of total excess deaths *excluding* those due to COVID-19 presents a more complex picture – most notably, between May 2020 and June 2021, where the number was below zero. In other words, fewer deaths were recorded during this time from causes other than COVID-19 than would have been expected in a typical corresponding time period. While there are likely to have been falls in deaths from some causes during this period (such as from infectious diseases, due to social distancing measures), for others it is unlikely to be a true reduction, and instead due to factors such as "displaced mortality" – where people would have died from another cause, but instead died earlier from COVID-19.[107]

It has been widely reported that the overall impact of COVID-19 has not been distributed evenly across all sections of society. For example, people of working age from the poorest 10% of areas in England were almost four times more likely to die from COVID-19 than those in the wealthiest 10% of areas.[108] Analysis of excess deaths by levels of deprivation further illustrates this divide. Figure 21 shows that higher levels of deprivation were associated with higher numbers of people who died as an indirect result of the pandemic between March 2020 and December 2021.[109]

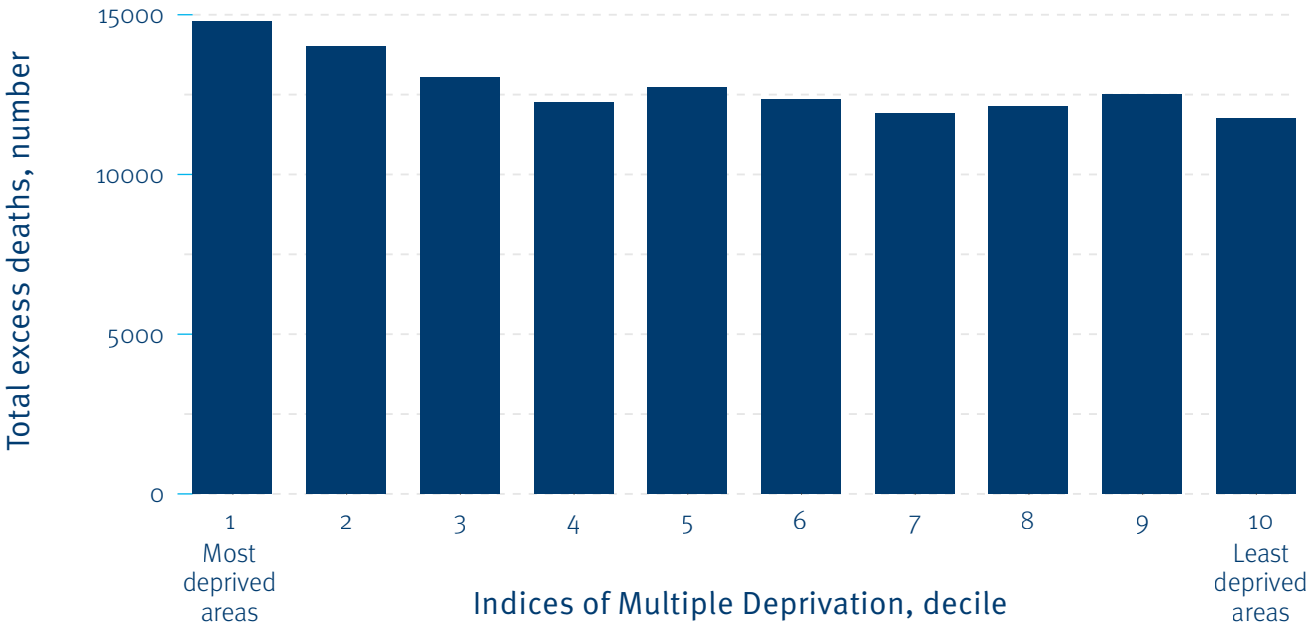


Figure 21: Total excess deaths for each Index of Multiple Deprivation decile that occurred between March 2020 and December 2021.

5.2 Impact of COVID-19 on the workforce

Prior to the pandemic, the strain on the workforce was already evident. For example, a survey of doctors who had quit working in the NHS, conducted in March 2020, found that more than a quarter reported burnout as their reason for leaving – this figure was nearly 43% for GPs.[110] Research has shown that burnout is linked to a decline in patient safety and outcomes, and an increase in patient dissatisfaction and complaints.[111]

The extent to which work impacts on the health of staff is not only a key measure of workplace safety, but also a factor that can affect the safe provision of healthcare services. Health and care workers did an incredible job to meet the demands placed upon them during the height of the pandemic whilst maintaining essential services. However, this has come at enormous physical and psychological cost.[112] Some sections of the workforce were particularly badly affected, whilst the impact on non-clinical but essential staff – including porters and domestic assistants – should not be under-estimated.[113] Care workers and home carers faced some of the highest mortality rates during the height of the pandemic,[114] whilst a study reported that nearly half of intensive care staff met the criteria for post-traumatic stress disorder (PTSD) during the winter surge of 2020/21 – a level comparable to UK military veterans deployed in Afghanistan in a combat role.[115]

Using data from the NHS Staff Survey (see Section 4 for further background information), the national average proportion of staff who reported feeling unwell due to work-related stress during the previous 12 months increased from just under 37% in 2016 to over 40% in 2019; in 2020, this rose to 44%, and nearly 47% in 2021. The figure for ambulance staff in 2021 was nearly 58% (see Figure 22).

During the last 12 months have you felt unwell as a result of work related stress?

% of staff who 'agree' or 'strongly agree'

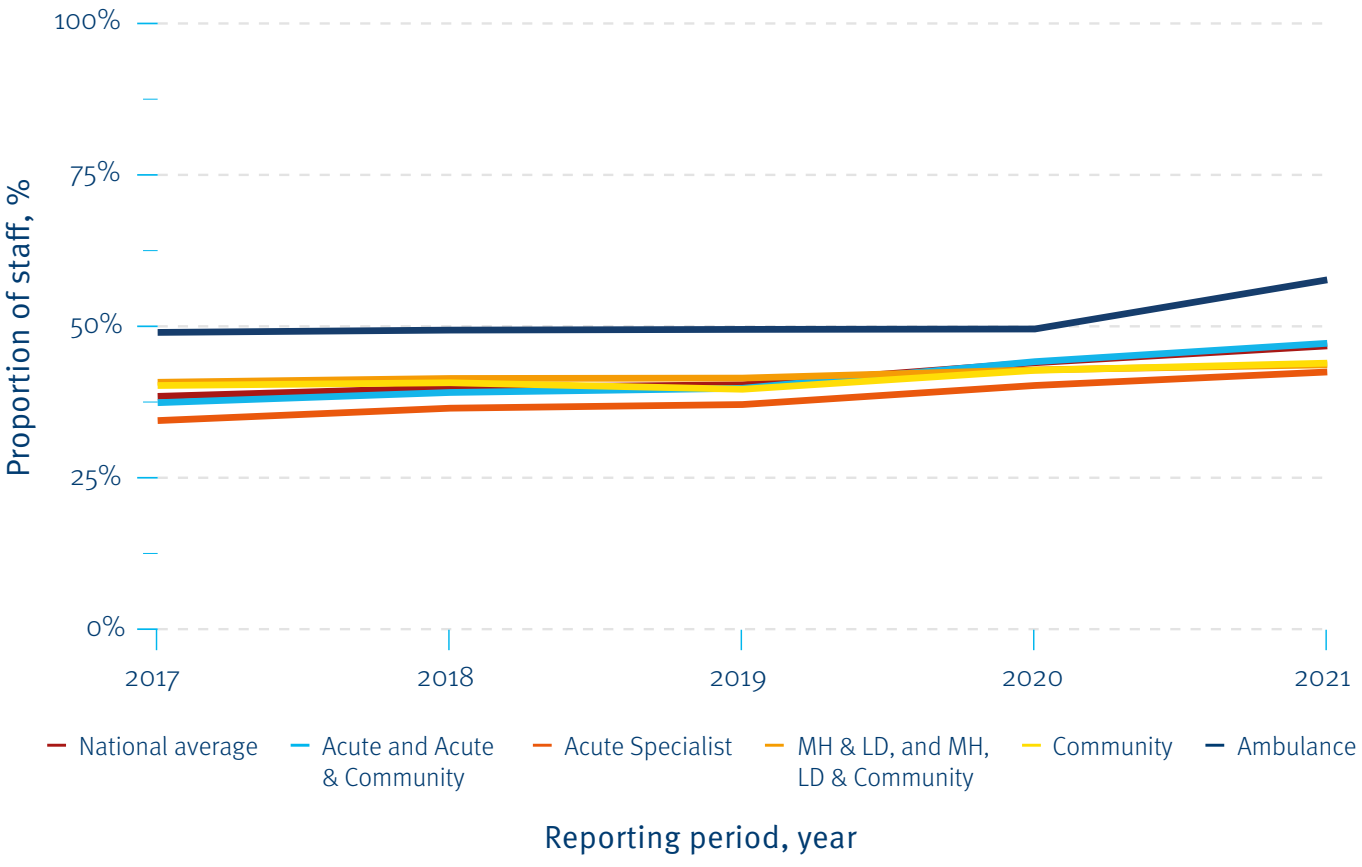


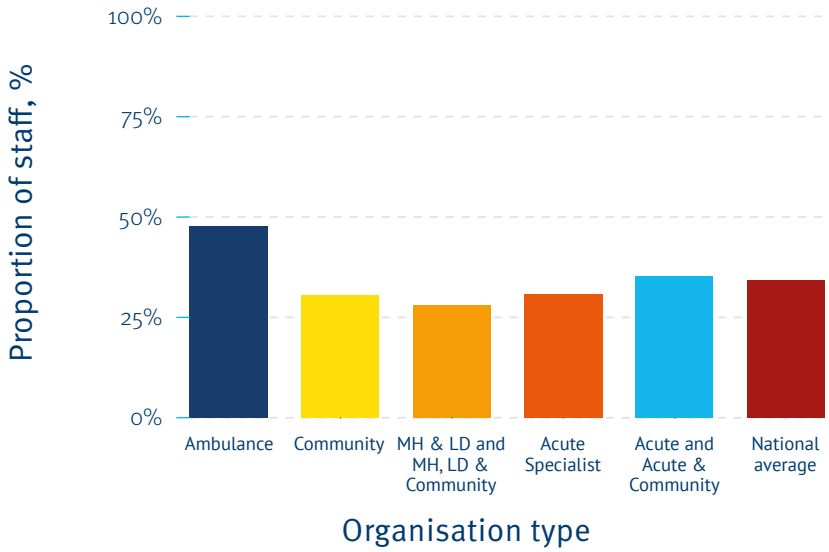
Figure 22: Proportion of respondents who agree or strongly agree to feeling unwell in the last 12 months due to work related stress.

The proportion of doctors in training that report feeling burnt out rose from 23% to 33% between 2020 and 2021, and from 25% to 37% for those that report feeling exhausted in the morning at the thought of another day at work.[116] These findings are reinforced by responses in the NHS Staff Survey, where 34% (national average) of staff reported always or often feeling burnt out because of work in 2021. For staff in ambulance trusts, this figure was 48% (see Figure 23 right).

These effects have clearly impacted people's feelings about their work. The NHS Staff Survey found that, in 2021, 31% (national average) of respondents often thought about leaving their organisation; for ambulance staff, this figure was 42.5% (see Figure 24 right). The survey also found an overall increase in people wanting to move out of healthcare entirely between 2020 and 2021, most notably again for staff from ambulance trusts, where the figure rose from 8.6% to 12.6%.

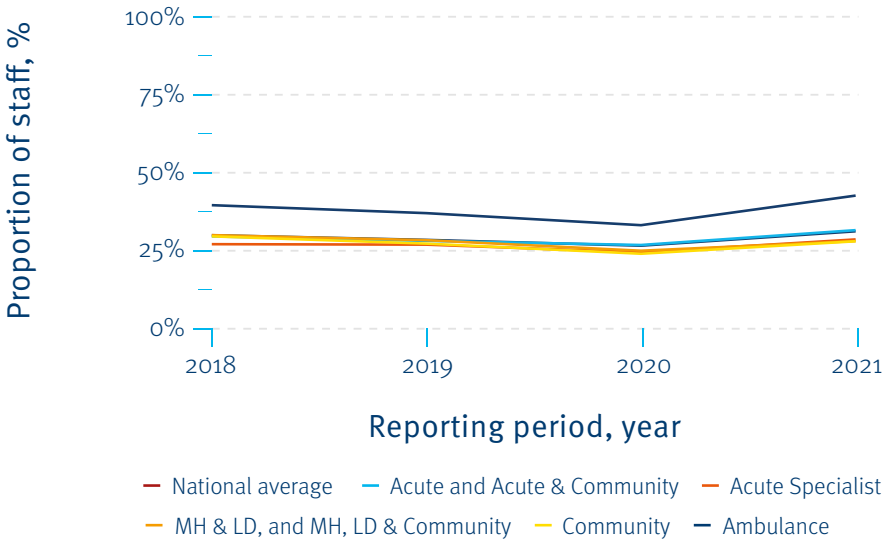
How often do you feel burnt out because of your work?

% of staff who 'agree' or 'strongly agree'



I often think about leaving this organisation

% of staff who 'agree' or 'strongly agree'



(Top right) Figure 23: Proportion of respondents who agree or strongly agree to feeling burnt out because of their work in 2021.

(Bottom right) Figure 24: Proportion of respondents who agree or strongly agree that they often think about leaving their organisation.

Impact of workforce pressures on patient perceptions of safety

Taken from the NIHR Imperial College London Patient Safety Translational Research Centre Focus Group, 2021 (Anonymous).

"I think there is a patient safety issue in the strain put on healthcare workers. I have friends who work in A&E and other departments, and I am acutely aware of the hours they are working and the stress. Often times you can see it when you attend appointments, and this can lead you to feel unsafe (because you don't know they are able to provide all the care they should due to time/cost/pressures). I think more needs to be done to protect the wellbeing and mental health of care staff. This ties in again to feeling like you can access healthcare: Should I really go in, unless I'm super sick, because they're under so much pressure."

The workforce entered the pandemic in a fragile state, with around 84,000 vacancies in the period from January to March 2020, meaning that the impact of COVID exacerbated problems that, in many cases, were already present. As of June 2022, NHS staff vacancies stood at more than 130,000[117]. At the national level, the proportion of respondents to the NHS Staff Survey who felt that there were enough staff at their organisation to do their job properly fell from 38% to 27% between 2020 and 2021 (Figure 25).

With the evidence building on the link between staff wellbeing and the safe delivery of healthcare services, ensuring that the workforce is adequately resourced and supported is a priority.

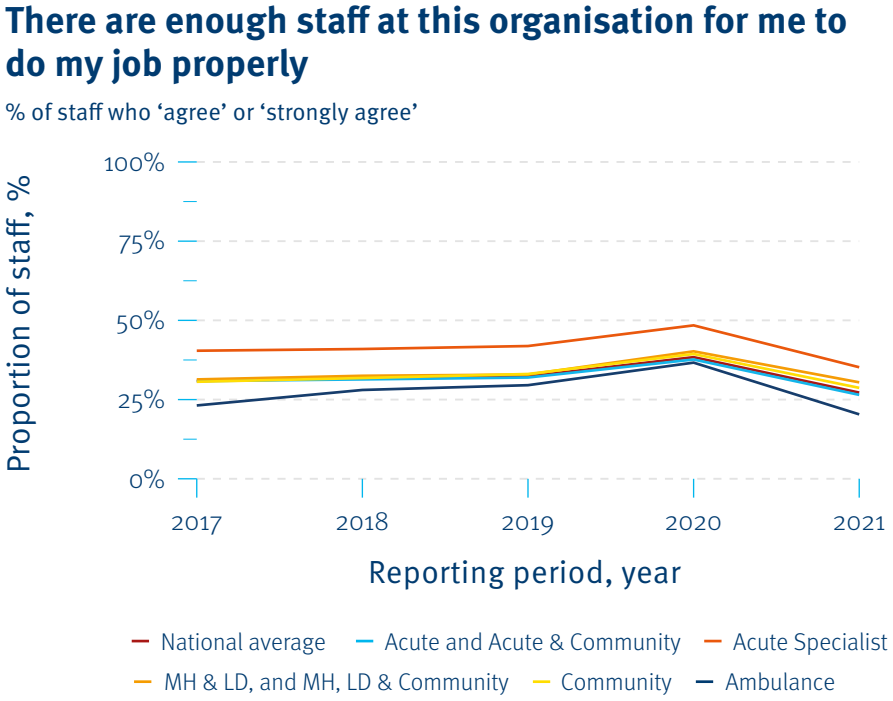


Figure 25: Proportion of respondents who agree or strongly agree that they feel there are enough staff at their organisation to do their job properly.

5.3 Access to primary care

In the early months of the pandemic, numbers of GP appointments plummeted, due to a combination of changes in health-seeking behaviours and social distancing guidelines, drawing concerns about unmet needs and the risk of delays in diagnosis of serious conditions (Figure 26). A similar pattern is found for appointments with other primary care professionals. In autumn 2020, appointment rates had recovered to pre-pandemic levels, and even excluding COVID-19 vaccinations, analysis showed that appointments in November and December 2021 exceeded the same months in 2019.[118] The pressure on general practice therefore remains considerable.[119]

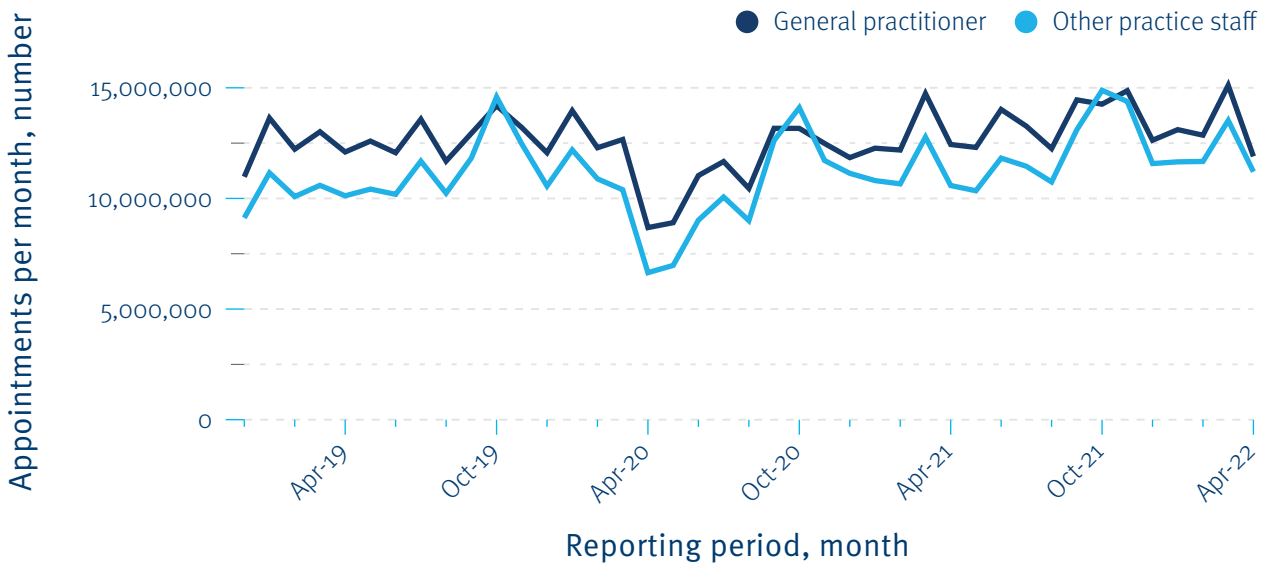


Figure 26: Number of primary care GP appointments per month.

That said, the 2021 GP patient survey found that more than 42% of people surveyed said they avoided making a GP appointment in the previous 12 months – nearly 20% of those people did so because they were worried about the burden on NHS services, and more than 17% because they were worried about the risk of catching COVID-19. The British Social Attitudes Survey found that satisfaction with the NHS as a whole fell to 36% (the lowest level recorded since 1997), and to 38% for general practice (the lowest level recorded since 1983), with waiting times for GP appointments a key factor highlighted.[120]

The pandemic period has also been marked by a rapid increase in the use of telephone appointments, initially made necessary to reduce spread of COVID-19, but broadly continuing as a trend into 2022. The data show that there was no corresponding rise in the number of video/online consultations (Figure 27).[121] Separate analysis found that only one in ten patients requested a preference for face-to-face consultations with GPs, falling from 30% before the pandemic.[122]

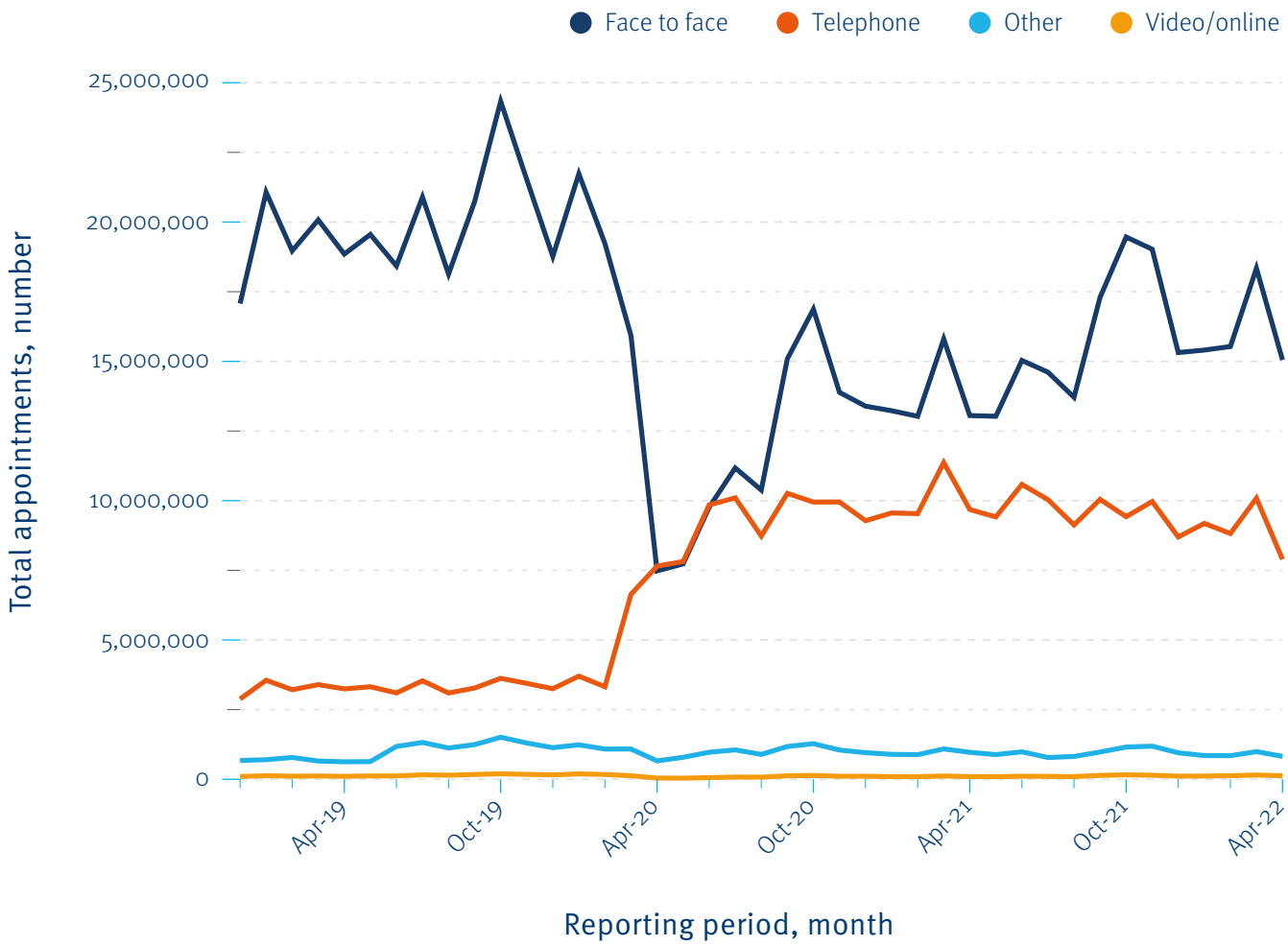


Figure 27: Number of appointments per month by appointment type.

Accelerating the adoption of innovation

Ensuring the effective uptake and adoption of innovations in healthcare can be challenging, time-consuming and slow.[123] However the unprecedented challenges presented by the pandemic led to a shortening of research and development timelines, in part by the removal of typical administrative barriers.[124] In terms of healthcare delivery, this supported an accelerated journey toward remote or virtual delivery of consultations and care either by phone, text, video or other online methods. In December 2019, NHS Digital reported that 15% of 23 million primary care appointments took place on the phone or online, by April 2020 this was 49% (see Figure 27). According to a King's Fund report many GP practices were conducting over 90% of their appointments virtually by May 2020.[125]

So far, there is limited evidence to accurately evaluate the impact of this shift on the overall quality and safety of care provided to patients.[126] Benefits can include increased patient satisfaction, with many citing it as a more convenient mode of care. In the context of the pandemic, patients did not have to weigh up the fear of infection. However, studies evaluating its use have found that patient satisfaction and experience vary, with a number of concerns raised about the impact on health equity.[127] Concerns have also been raised about whether a remote service raises safety issues for people from the most vulnerable and at-risk groups, or from the lack of a physical examination in some cases.[128]

The use of remote care and assessment for those suffering from COVID-19 has also accelerated rapidly, with home oximetry (monitoring of oxygen saturation levels using a simple device) providing a safe, efficient method for a health professional to assess a number of patients virtually. The COVID Oximetry @ Home programme has enabled a safety net and an effective way to detect and act on the early signs of deterioration in patients.[129] It has also prevented unnecessary contact for healthcare professionals with COVID patients.[130] However, its rapid uptake has raised questions about the safety of this model of care and concerns about whether efficiency has been achieved at the expense of patient centredness, alongside an overreliance on decision support tools and algorithms.[131] There remains a need to conduct further research and evaluation to fully understand the safety implications of these innovations.

Importance of effective communication in feeling safe

Taken from the NIHR Imperial College London Patient Safety Translational Research Centre Focus Group, 2021 (Anonymous).

"It seems like the doctor/patient relationship is something that ... more research needs to be put into because that has profound implications on patient safety. It leads to this big problem of communications or the breakdown of, or lack thereof communication, and what implications that has on patient safety. That seems like a recurring theme. Whether it comes down to using digital tools to access care or versus going face-to-face. Ultimately, it comes down to, are patients able to communicate effectively and know what's going on with their care and what decisions are being made by their doctors? It seems like that's still, there's still a gap there that needs to be addressed."

5.4 Diagnosis and management of chronic conditions

Further concerns about the indirect impact of the pandemic on patient safety is evident in data on the diagnosis and management of serious long-term conditions. Analysis by the Department for Health and Social Care (DHSC) and Office for National Statistics (ONS) found a delay in the recording of new diagnoses of chronic conditions during the pandemic. This was likely due, in part, to the use of remote care delivery to reduce the risk of transmission, and de-prioritising certain non-urgent clinical activities.[132]

The conditions that saw the greatest fall in diagnosis rates in 2020, when compared to 2019 activity, were Chronic Obstructive Pulmonary Disease (COPD, 51%), Atrial Fibrillation (26%), and Heart Failure (20%). For COPD, the fall was due to the inability to diagnose cases through teleconsultation, and confirmatory diagnostic spirometry tests being paused to prevent spread of COVID-19, rather than reflecting a fall in underlying need.[133] As a result, these missing diagnoses will likely contribute to poorer long-term outcomes for these patients.

Routine screening programmes were also severely disrupted by COVID-19. In September 2020, Breast Cancer Now estimated that around 986,000 women missed their mammograms in England due to breast screening programmes being paused in March 2020 – potentially translating to 8,600 women living with undetected breast cancer.[134] Bowel Cancer UK estimated that one million bowel cancer screening invitations were delayed due to the pause, with a backlog of thousands waiting for further investigation – equating to 1,350 undiagnosed bowel cancer cases.[135]

Action on medication safety

By Professor Bryony Dean Franklin

"Medication errors are all too common. For example, a recent evidence synthesis suggests that 237 million errors occur in England each year. While nearly three quarters of these have little or no potential for harm, this still leaves 66 million that are potentially clinically significant. Avoidable harm from these errors is estimated to cost the NHS £98 million per year, causing or contributing to 1,708 deaths.[136] Recognising this as a global issue, the World Health Organization selected 'Medication without Harm' as its third Global Patient Safety Challenge for the period 2017–22.

Since then, the COVID-19 pandemic is likely to have created additional medication safety risks. For example, rates of prescribing new diabetes and antihypertensive medications for people in England with type II diabetes fell by about 20% during the period March to December 2020. This is likely due to 76%–88% fewer health checks being conducted in this population, with older people from more deprived areas experiencing the greatest reductions.[137] Interviews with a wide range of people isolating at home during the first phase of the pandemic also revealed significant challenges, such as having to omit medications or use less effective formulations, and high levels of anxiety related to obtaining medicines.[138] For many of these people, the pandemic served as a 'tipping point', exacerbating pre-existing logistical challenges and medication safety risks.

While various interventions to improve medication safety have been introduced, we also need to urgently identify ways of measuring and monitoring progress to reduce the risks of medication error. This should include measuring safety conceptualised both as the avoidance of harm and as a more subjective sense of 'feeling safe' from the patient and carer perspective, as well as identifying inequalities and inequities in relation to medication safety."

5.5 Access to secondary care

Challenges with timely and equitable access to secondary care services is a problem that pre-dates the pandemic, but has significantly worsened in the last two years.[139] Much of the focus for the NHS since the pandemic has been on addressing the significant rise in people waiting for elective care (either specialist care or surgery, Figure 29) which, in March 2022, stood at more than 6.3 million in England – a figure which has grown by more than 40% since February 2020.[140]

Combined with the significant drop in referrals for elective care during the pandemic – estimated at between 7.6 million and 9.1 million between March 2020 and September 2021 - it is predicted that the number of people waiting for care will continue to rise, and crucially, many people who needed access to specialist care and did not receive it, will seek help at a later point in their illness, leading to worse health outcomes.[141]

A poll conducted by Healthwatch England found that people living in the most-deprived areas in England are nearly twice as likely to experience a wait of more than one year for planned hospital treatments than those who live in the least-deprived areas. Further, it found that people's experience of these delays can take a toll on their health and wellbeing – 57% say it had affected their level of pain, and 54% saying it had affected their mental health.[142]

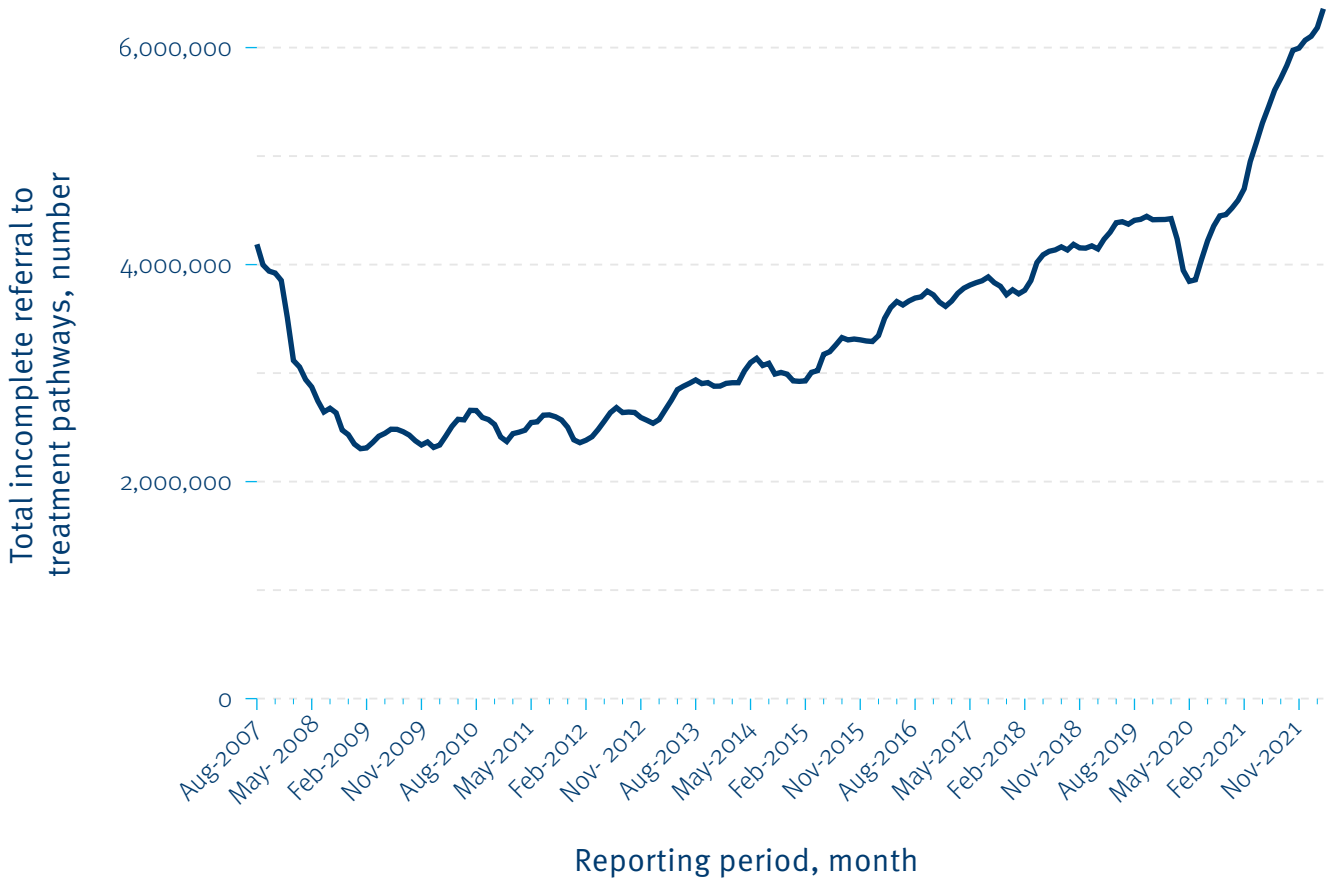


Figure 28: Total number of incomplete referral to treatment pathways.

COVID-19 Inpatient Experience Survey

The Care Quality Commission (CQC) conducted a survey capturing the experience of more than 10,000 adults with confirmed or suspected COVID-19, who were discharged from hospital during April and May 2020.[143] The results revealed some notable findings relating to patient safety:

- 83% said they felt safe from the risk of catching COVID-19 in hospital
- 83% said they always had confidence and trust in the staff treating them
- 80% said their room or ward was "very clean"
- 32% did not know what would happen next with their care when leaving hospital
- 29% of those diagnosed with COVID-19 felt help from health and social care services would have been useful after leaving hospital but did not receive any.

These findings both suggest that patient perceptions of care in hospital remained positive despite the unprecedented pressure on staff during this time, as well as reinforcing some of the issues identified in the National Inpatient Survey around leaving hospital and accessing support.

Waiting for care in the most time-sensitive of situations has also not been immune to the pressures placed on the NHS. Delays in care for patients arriving in A&E have been associated with increased mortality and illness.[144] The proportion of patients in England waiting more than four hours before a decision whether to admit them to hospital has increased from almost 15% in April 2019 to more than 25% in March 2022 (see Figure 29a) – this is in the context of the number of people presenting to A&E remaining at around 2.1 million per month during the same period, although a significant reduction in the number of patients was observed from January 2020 to April 2020 (see Figure 29b).[145]

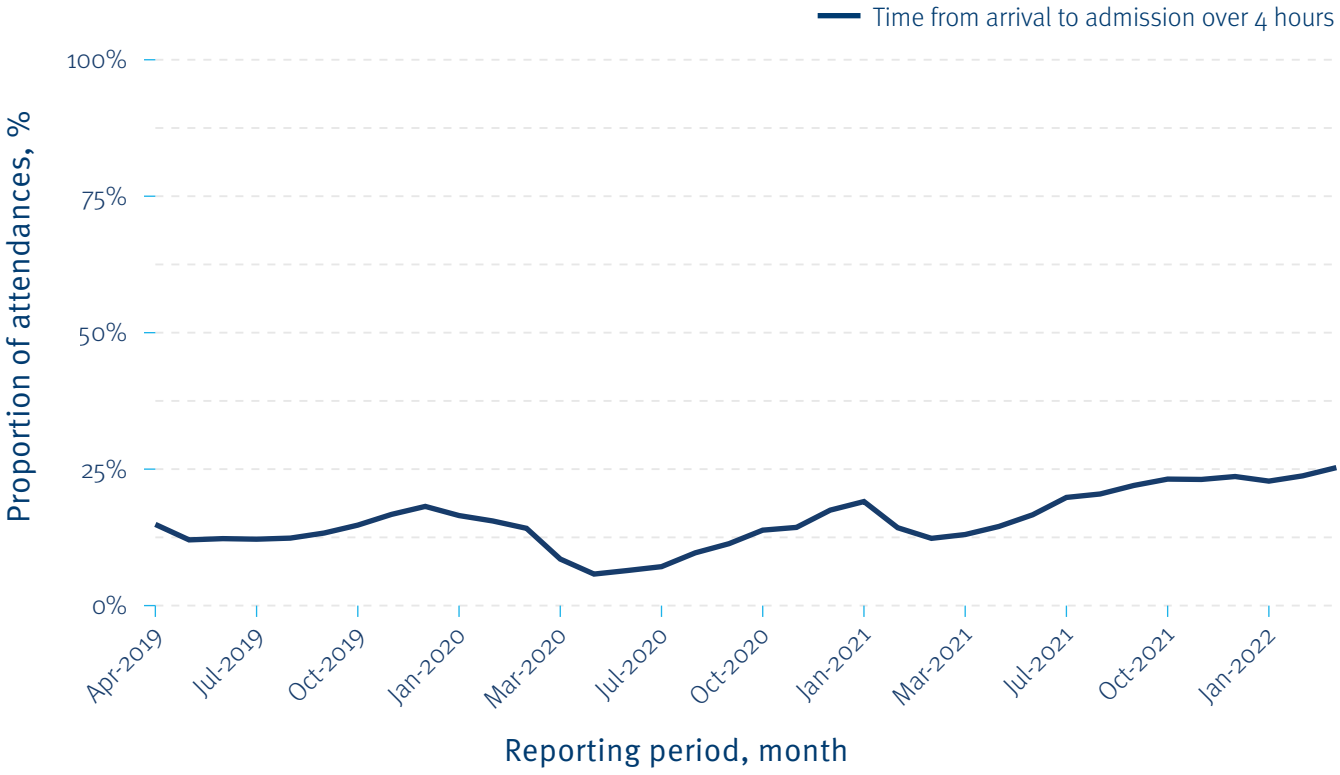


Figure 29a: Proportion of A&E attendances with a waiting time more than four hours from arrival to admission, transfer or discharge in England

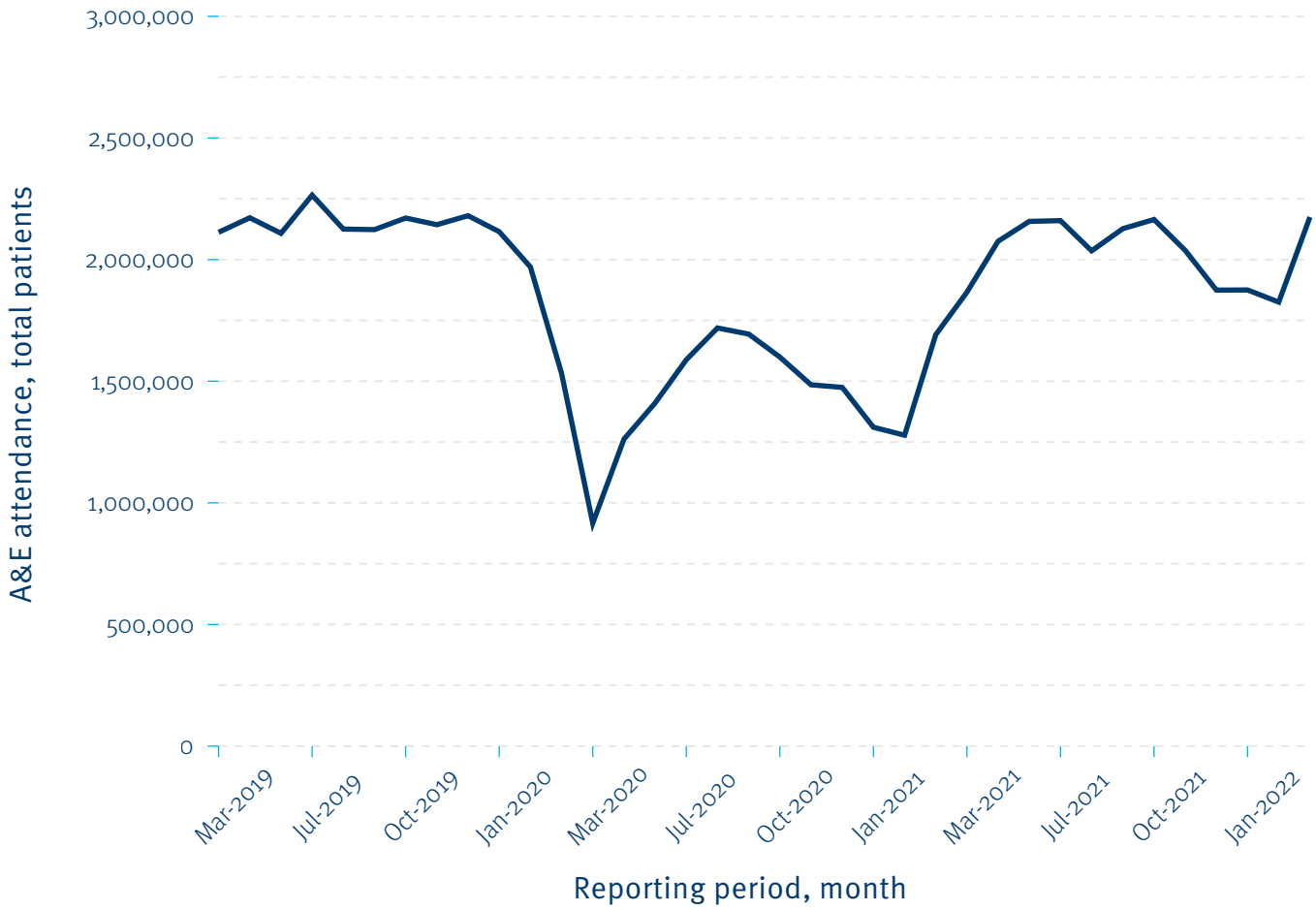


Figure 29b: Total A&E attendances in England

Waiting times and the impact on psychological safety for patients

Taken from the NIHR Imperial College London Patient Safety Translational Research Centre Focus Group, 2021 (Anonymous).

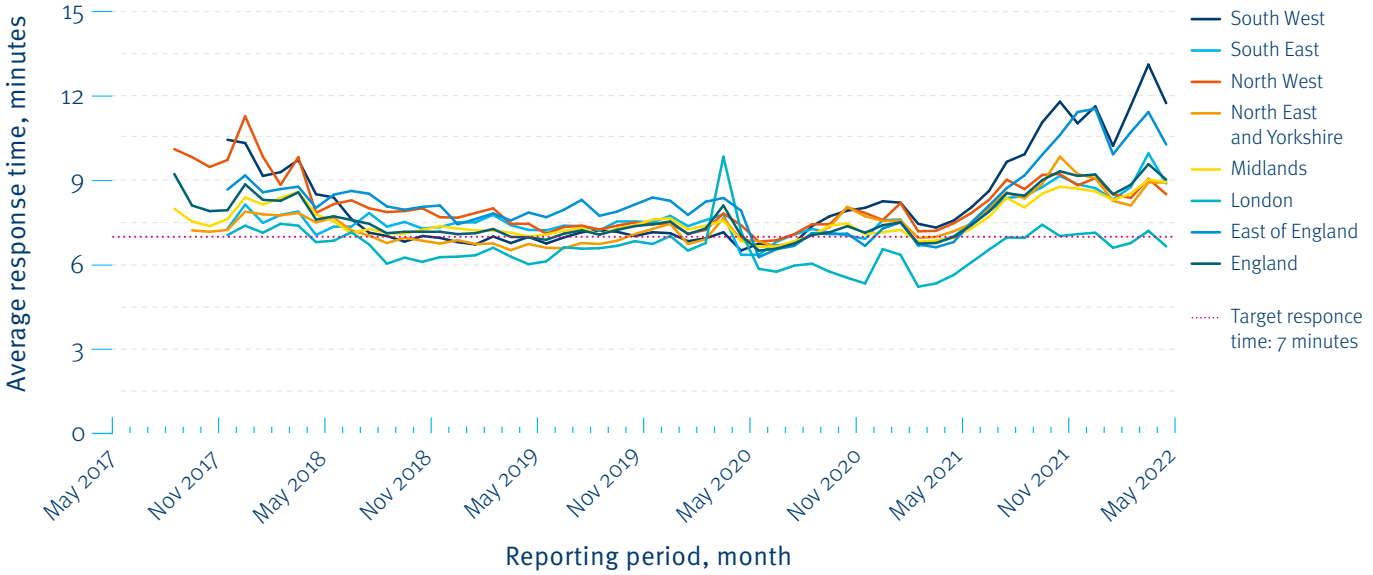
"Say that you came to A&E for a mental health problem, with a mental health issue. Usually what happens is you arrive there and then they get a psychiatrist or a mental health professional to come and assess you. Now, there was one time where I was waiting ... like 12 hours for that. Then that meant that I had to take up a bed that could've been used for someone else. I don't need that bed because I could've just been seen and gone home. There was no need for me to stay overnight, and then you're putting someone who's got needs in that situation. Do you think that it's really safe for me to be at Accident & Emergency when I'm in that situation? No, it's not.

No [I don't feel safe], because ... I'm in the middle of a mental health problem. I'm not being seen by a psychiatrist so I won't know where I'm going next. I won't know what the next steps are, and I'm sat in a hospital bed with screaming people having any kind of – these other hospital needs, people being sick, whilst I'm in the middle of a crisis."

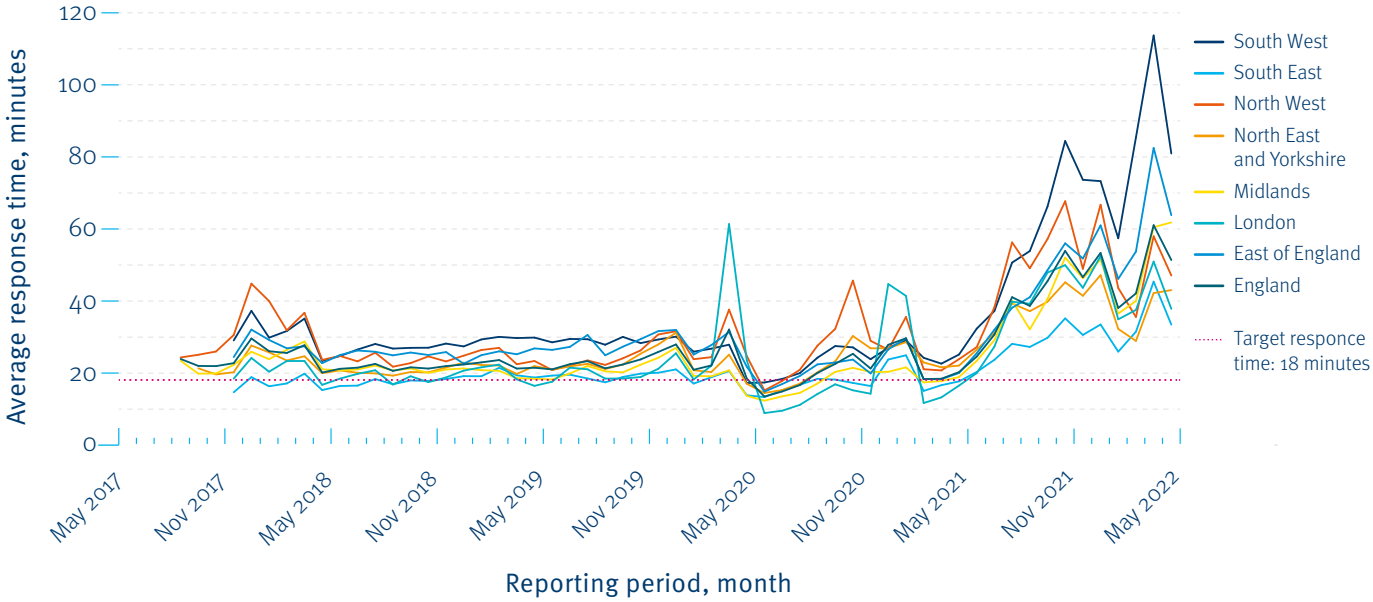
Ambulance service performance is measured by the time it takes from receiving a 999 call to a vehicle arriving at the patient's location.[146] Calls are triaged into four categories, based on the patient's condition. Figures 30a and b below show how response times have worsened for the two most serious condition categories nationally since 2020, and most notably for Category 2 calls[147] (Category 1 = life-threatening and needing immediate intervention and/or resuscitation, e.g. cardiac or respiratory arrest; Category 2 = emergency or a potentially serious condition that may require rapid assessment, urgent on-scene intervention and/or urgent transport). The national standard sets out that all ambulance trusts must respond to Category 1 calls in 7 minutes on average, and Category 2 calls in 18 minutes on average. Using the latest data point (April 2022), average response times for Category 2 calls ranged from 33 minutes (South East) to 1 hour 20 minutes (South West) – see Figures 30a and b.

National guidance states that patients arriving at A&E by ambulance must be "handed over" to the care of A&E staff within 15 minutes. Ambulance handovers are considered an important indicator of overall system capacity and safe running. Analysis of Urgent and Emergency Care Daily Situation Reports by the Nuffield Trust shows that, in the winter of 2021/22, 21% of ambulance handovers experienced a delay of more than 30 minutes; this compares to 12% in the winter of 2018/19.[148] An impact assessment by the Association of Ambulance Chief Executives found that, for patients who experienced a handover delay of more than an hour, eight out of ten potentially experienced additional harm.[149]

Category 1 calls



Category 2 calls



Figures 30a and b: Average ambulance response times for Category 1 and Category 2 calls, by month and by region respectively.

Indirect impact of COVID-19 on maternity services

COVID-19 has impacted on the way maternity services are delivered, and women's experience of them. During the pandemic, many maternity units either limited the time that partners could be present, or did not allow their presence during antenatal care, and in some cases during labour and delivery. Whilst these measures were an effort to keep women and staff safe from infection, women reported that unclear guidance and lack of information made them feel uncertain, and for many who did not know prior to the birth whether they would be able to have a birthing partner, this led to feelings of distress and anxiety.[150]

The CQC maternity survey enables women to share their experiences.[151] The proportion of women who felt that if they raised a concern, it would be taken seriously, had risen steadily from 80% in 2013 to 84% in 2019, before dropping to 79% in 2021. Between 2019 and 2021, the number of women feeling that their partner or other supporting person was able to be involved as much as they wanted dropped from 97% to 84% (Figure 31).

If your partner or someone else close to you was involved in your care during labour and birth, were they able to be involved as much as they wanted?

% of staff who answered 'Yes'.

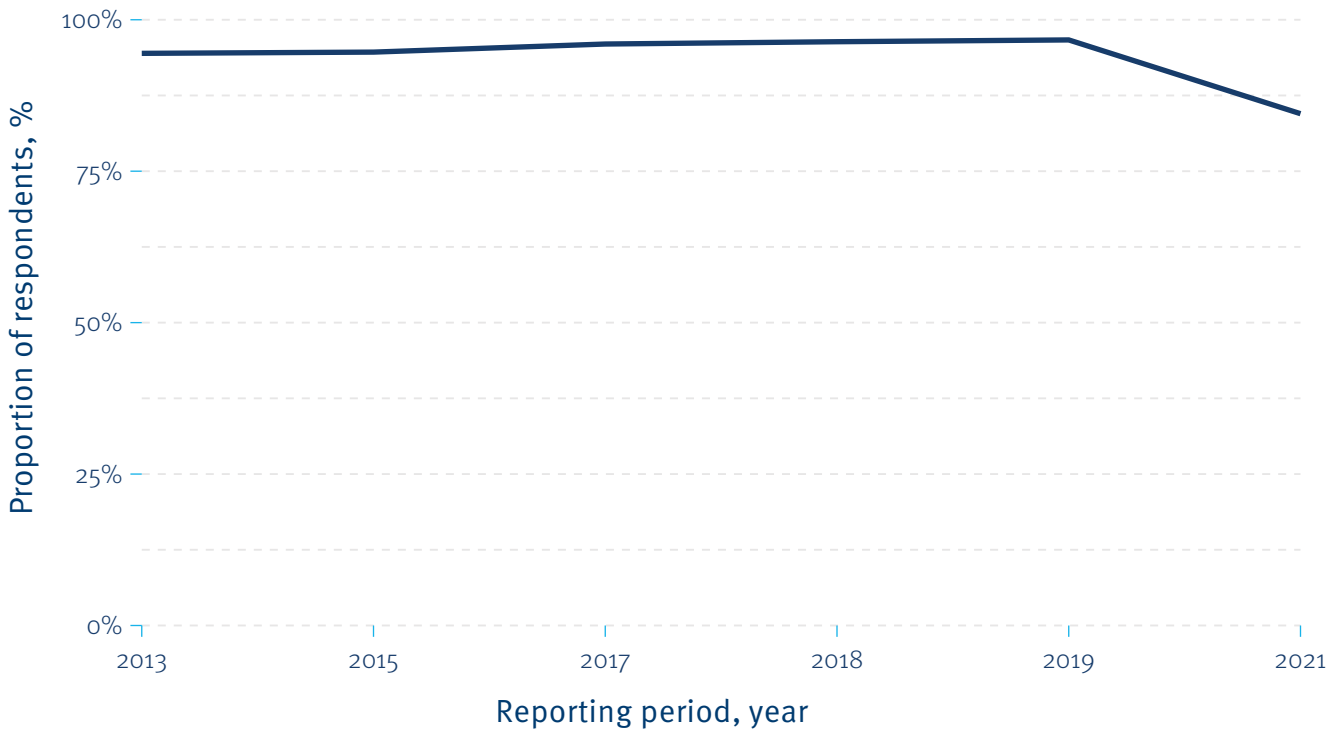


Figure 31: Proportion of respondents who agree their partner or someone close to them was able to be involved as much as they wanted.

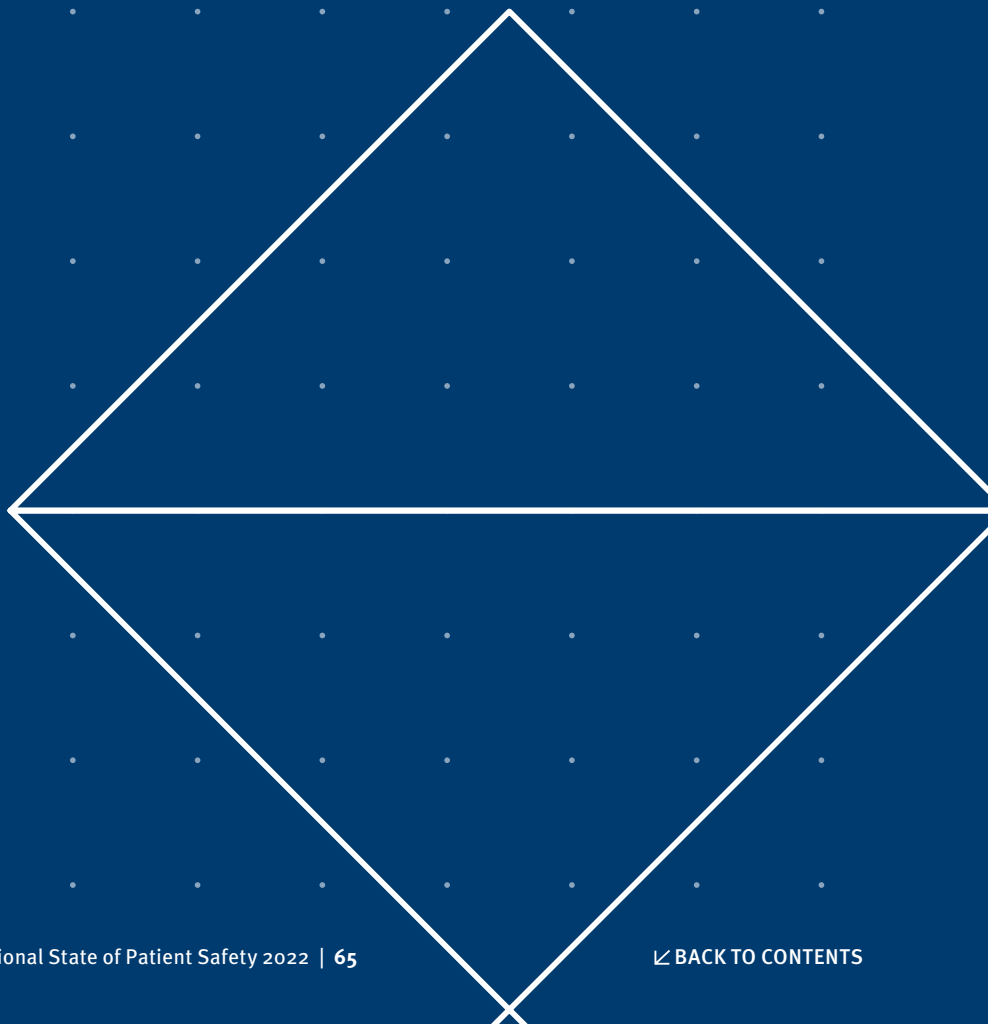
In 2021, a number of survey questions were added to understand the impact of COVID-19 restrictions. The survey found that a quarter of women felt they were not given enough information about the COVID-19 restrictions and their impact on their maternity care. In addition, 66% of women felt that the COVID-19 restrictions that had been in place had affected how involved their partner, or someone else close to them were able to be.

5.6 Summary

The safety of patients, and the wider public, has been the primary focus for the NHS during the pandemic. However, necessary changes to the way services were designed and delivered has inevitably had an indirect impact on patient safety. Insights around total excess deaths, and any variations in hospital death rates, can help to monitor this impact, but like all data relating to mortality, it only provides part of the picture and conclusions should be drawn with extreme caution.

The NHS workforce entered the pandemic already experiencing high rates of work-related stress and burnout – factors that are linked to reductions in patient safety and poorer patient outcomes. This trend has accelerated since the onset of the pandemic. Patients and the wider public empathise with the pressure staff are under, with some evidence showing that patients are reluctant to access services as a result. Due to a combination of changes in health-seeking behaviour, social distancing measures, and increased pressure on services, pre-existing issues with access to services right across the spectrum – from primary care to specialist care, to emergency care – have worsened. This is likely to have a significant effect on patient safety and outcomes for years to come.

6.
Forward look



6.1 What do we know about the current state of patient safety?

This report presents a complex picture of patient safety in England, and one which cannot be reduced to a single narrative or measure; however, important conclusions can be drawn. Patient safety has improved in several areas thanks to the concerted efforts of staff and through targeted initiatives and policies. The use of data in stimulating action on specific harms, and measuring its impact, remains a vitally important mechanism for safety improvement. Variations in performance exist, in areas such as hospital mortality, where further work is required to understand the underlying causes of this variation, and what can be learned from those organisations or regions performing well.

Insights derived from patient and staff surveys, despite being less objective, are vital to ensuring that the perceptions of how safe people feel are captured; these measures can also provide early indications that services are unsafe. There are signs in the survey data that a more positive safety and reporting culture is developing overall, but this is not universal, as highlighted in a series of inquiry and investigation reports into cases where there has been a failure to be open and honest with patients and their families.

The NHS responded heroically to the enormous pressure it was placed under by the COVID-19 pandemic. Confidence in clinicians among patients – a crucial aspect of patients feeling safe – has remained high during this time, which is a remarkable achievement. However, this has come at some cost to the health and wellbeing of the workforce, as evident in the NHS Staff Survey and other snapshot surveys. The pandemic has exacerbated issues with timely access to healthcare services, which will only worsen as the workforce becomes ever more stretched.

6.2 Future work: are we identifying and answering the right questions?

To understand the safety of any healthcare system, data are required that are accurate, meaningful, and measured over time to understand local and national trends. More fundamentally, it requires data that come from asking the right questions in the first place. Research suggests there are five questions that can be asked to understand the safety of care:[152]

1. Has patient care been safe in the past?
2. Are our clinical systems and processes reliable?
3. Is care safe today?
4. Will care be safe in the future?
5. Are we responding and improving?

The data presented in this report provide some answers to the first two questions – whether care has been safe in the past (such as data on HAIs) and whether clinical systems and processes are reliable (such as the number of VTE risk assessments performed on patients). However, data relating to the remaining questions remain relatively sparse, with major gaps in the data evident for mental health and learning disability services, or in the care provided in people's homes. Although some of these data will already be collected at a local level, the question remains: **how can national data provide the most complete picture of patient safety?** Some answers lie in research already conducted, for instance, by:

- **Making better use of existing data to identify patient safety issues, particularly outside of hospital settings.** For example, research has shown how analysis of clinical records established the contribution of referral delays from primary care to worsened survival rates for patients with colorectal cancer.[153]

- **Making better use of real-time (or near real-time) data, to trigger alerts into current and emerging safety issues.** For example, research demonstrated how Statistical Process Control (SPC) charts can be used to identify concerns in performance, such as those seen at Mid Staffordshire NHS Foundation Trust for patients admitted as an emergency.[154]
- **Developing new indicators to measure harm at the patient level.** For example, research has shown that, by calculating the proportion of patients who experience an "adverse event-free" hospital admission, a clearer picture can be given of safe care, and of patients who experience multiple adverse events.[155]

Accurate data on deaths due to problems in care remains vitally important to understanding the state of patient safety in England. Guidance is in place to support NHS organisations to improve their understanding of why such deaths occur, and how they can be prevented. The guidance requires organisations to report the number of deaths due to problems in care, but does not stipulate how it should be calculated.[156] As a result, as highlighted in Section 2.3, there is wide variation in reported rates, with some organisations reporting zero deaths, or no figure at all. Further work should be done to understand why compliance with the guidance is inconsistent, and explore the reasons for the variation in the calculations.

To support the development of a more complete picture of patient safety in England, we highlight five further questions below to focus future research and provide a sense-check to policy makers when considering making changes to the types of patient safety data being collected at a national level:

1. **Will the data tell us how safe care is today, and is likely to be in the future**, not just how harmful it has been in the past?
2. Will the data tell us **how safe services are across the continuum of care**, not just in hospitals?
3. Will the data tell us **how safe patients are while they wait for their care**, not just when they receive their care?
4. Will the data tell us **how safe people feel**, not just how safe they are clinically?
5. Will the data tell us **whether some people are less safe than others**, particularly those from deprived, disadvantaged, or minority ethnic groups?

Perhaps most fundamentally of all, this report calls for patient safety to be conceived, first and foremost, from the patient's perspective. This means that data on patient safety should begin when the patient's journey begins, not just from the point when they enter a particular care setting, so that safety is assessed across the continuum of care. We know the numbers of patients who are waiting for their care, but we know far less about how safe those patients are, or how safe they feel, while they are waiting for their care or after they have been discharged. Patient safety data tends to be collected at an organisational level, but it should increasingly be organised and overseen at a whole health economy level to build a true picture of safety; the introduction and development of Integrated Care Systems in England presents a unique opportunity to achieve this.

6.3 Conclusion

This report highlights a way forward in collecting, analysing and reporting patient safety data in the NHS in England. For policymakers and system leaders, it highlights warning signs in the existing data where further attention needs to be paid, as well as some emerging threats that have coincided with, or been exacerbated by, the COVID-19 pandemic. This report also highlights the areas where far less is known about patient safety, or where the dots need to be joined with data from other aspects of quality, to ensure it becomes part of the patient safety agenda. Information about the safety of care outside hospital settings, for people from Black and minority ethnic groups and more deprived parts of the country, and that which draws directly from patient and staff perceptions of safety, are areas requiring further attention, including from the research community, to drive continuous improvements in the safety of patients.

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