

Urgent and emergency care: Rapid insights and opportunities for innovation

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West of England
Academic Health
Science Network

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About the West of England AHSN




The West of England Academic Health Science Network (AHSN) plays an integral role in our regional health and care ecosystem, connecting and collaborating with people from diverse sectors and communities to discover and spread proven innovation.

The AHSN brings together all the key players innovating health and care in the West of England, which includes three integrated care systems: Gloucestershire; Bristol, North Somerset and South Gloucestershire; and Bath & North East Somerset, Swindon and Wiltshire.

Our focus is the West of England, but we are part of a national network of 15 AHSNs, which act as the 'innovation arm of the NHS', enabling us to deliver at scale.

Central to our work is supporting a vibrant healthcare innovation pipeline in the West of England, helping to identify and nurture new products, services and pathways with clear evidence of effectiveness, which are aligned to both system and patient needs and priorities and are ready to be adopted by our local health and care systems.

West of England AHSN and our Integrated Care Systems (ICS)

-  One Gloucestershire
-  BSW Together (Bath & North East Somerset, Swindon and Wiltshire)
-  Health Together Partnership (Bristol, North Somerset and South Gloucestershire)



Introduction

There are many challenges facing providers and commissioners of urgent and emergency care, which have been further compounded and complicated by the impact of the Covid-19 pandemic.

Whilst these challenges are well documented, it can be difficult for the innovation community to understand how best to help the system to address these.

The West of England AHSN conducted a rapid insight exercise during the autumn/winter of 2022/23 to explore this challenging area. This involved a review of published policies and research, alongside engagement with local health and care system partners across the West of England.

This guide summarises the high-level themes uncovered through this review and raised by stakeholders relating to urgent and emergency care.

These themes are by no means exhaustive. However, they bring to the surface some useful areas upon which innovators could focus their attention, to deliver impactful innovation within urgent and emergency care.

We hope these insights will help to inform and signpost innovators interested in helping to address these challenges.

Definitions

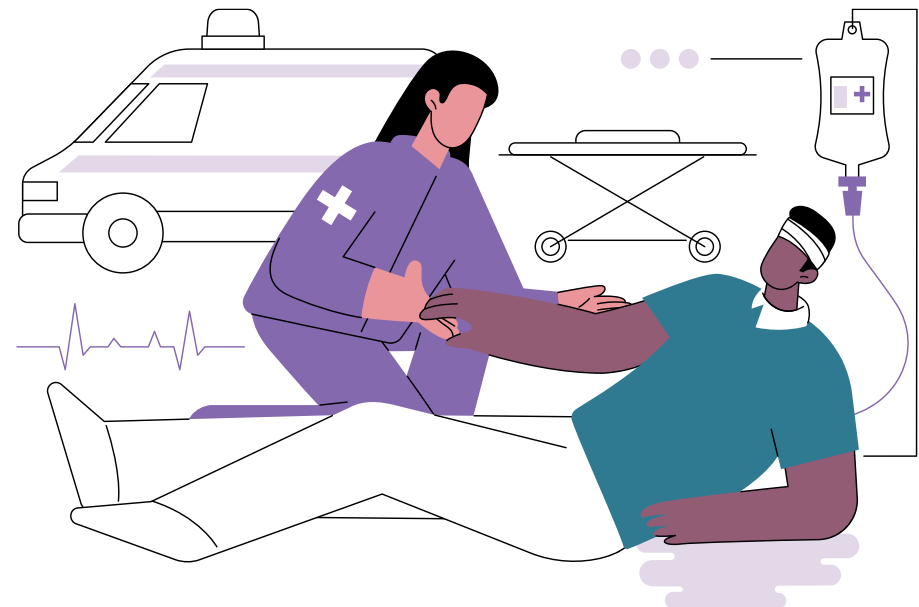
Urgent care:

Urgent care involves any non life-threatening illness or injury needing urgent attention, which might be dealt with by phone consultation through the NHS 111 Clinical Assessment Service, pharmacy advice, out-of-hours GP appointments, and/or referral to an urgent treatment centre.

Emergency care:

Emergency care involves life-threatening illnesses or accidents, which require immediate treatment from the ambulance service (via 999) and an emergency department (A&E).

Source: [NHS England: About Urgent and Emergency Care](#)



Our call to innovators

Innovation remains a cornerstone of the NHS and it is recognised that unless we change how we deliver care in this area, through innovative approaches and new ways of working, we will be unable to resolve the operational pressures, increased demand and issues relating to health inequalities.

The West of England AHSN are keen to hear from innovators who feel they can offer solutions to the needs articulated within this report. These may be:

- Innovations already in use within the NHS that may be ready for wider adoption and spread
- Innovations in use in other nations and markets that could be adapted or appraised for use within the NHS
- Innovations still in development that would benefit from support to expedite market appraisal and validation.

For further details about the support we offer to innovators and to tell us more about your innovation, please visit www.innovationexchange.co.uk or email us at weahsn.innovation@nhs.net.

"Urgent and emergency care in the NHS is under huge pressure. We need innovative solutions that improve efficiencies but that also make a meaningful difference for patients and for the system as a whole. The impact of an aging population with long term conditions means that demand on urgent and emergency care services is likely to increase further unless care can be delivered closer to home."

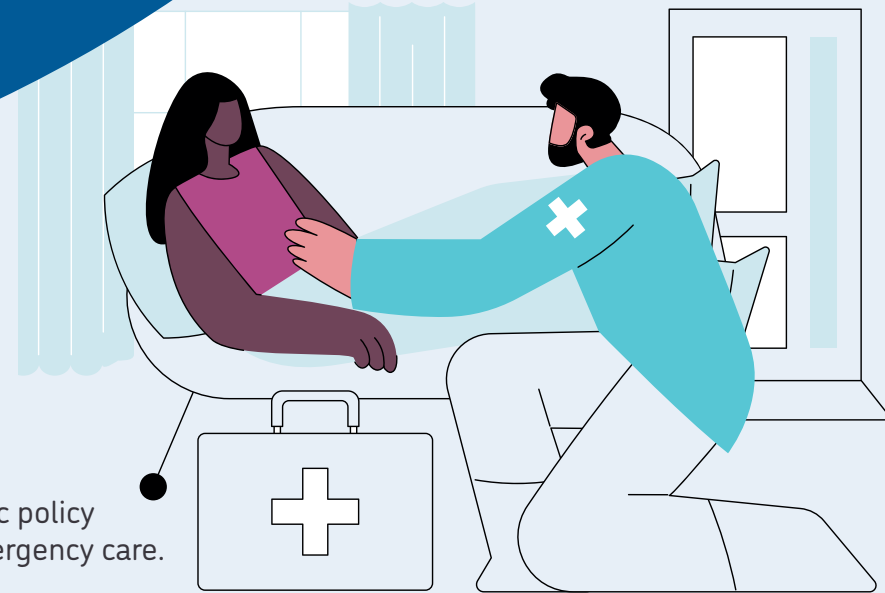
**Mark Juniper, Medical Director,
West of England AHSN**



The national vision

It is widely recognised by the NHS and UK government that there is a need for innovative solutions and a change in the way we care for people as they age and how we support the people caring for them.

This section provides a rapid review of specialist sources outlining the priorities and strategic policy extracts, providing additional context to the national vision for improving the urgent and emergency care.



NHS Long Term Plan (2019)

NHS England's Long-Term Plan outlined, among others, five areas of service model changes for the next five years¹:

1. We will boost 'out-of-hospital' care, and finally dissolve the historic divide between primary and community health services.
2. The NHS will redesign and reduce pressure on emergency hospital services.
3. People will get more control over their own health, and more personalised care when they need it.
4. Digitally enabled primary and outpatient care will go mainstream across the NHS.
5. Local NHS organisations will increasingly focus on population health and local partnerships with local authority-funded services, through new Integrated Care Systems (ICSs) everywhere.

UEC Recovery 10 Point Action Plan – Implementation guide (September 2021)

The ten-point plan describes the complexity of UEC challenges, and how the system as a whole will respond and recover by focusing on immediate and medium term actions. The points focused on²:

1. Supporting 999 and 111 services.
2. Supporting primary care and community health services to help manage the demand for UEC services.
3. Supporting greater use of urgent treatment centres.
4. Increasing support for children and young people.
5. Using communications to support the public to choose services wisely.
6. Improving in-hospital flow and discharge.
7. Supporting adult and children's mental health needs.
8. Reviewing infection prevention and control measures to ensure a proportionate response.
9. Reviewing staff Covid isolation rules.

Pressure on the system was increased by the Covid-19 pandemic and added to the urgent need for transformation and innovation.

The NHS Confederation outlined a set of recommendations in their work focusing on Re-envisioning urgent and emergency care (December 2022)³:

- Develop a system that deals with need earlier. Better navigation of the system for patients would enable better use of the range of services available, as well as continuing to develop greater community-based alternatives.
- Focus more on the urgent care part of the system and how the system can deliver a timely response with appropriate outcomes for urgent care.
- Risk needs to be better spread across the whole system, with particular focus on being less risk adverse and learning from primary and community care, which often hold significant risk.
- Investment in social care is vital in addressing flow across the system. A robust plan for social care is needed.

NHS England's 2023/24 priorities and operational planning document outlines the following urgent and emergency care key actions⁴:

- Increase physical capacity and permanently sustain the equivalent of the 7,000 beds of capacity that was funded through winter 2022/23.
- Reduce the number of medically fit to discharge patients in our hospitals, addressing NHS causes as well as working in partnership with local authorities.
- Increase ambulance capacity.
- Reduce handover delays to support the management of clinical risk across the system in line with the [November 2022 letter](#).
- Maintain clinically led [System Control Centres](#) to effectively manage risk.

Delivery plan for recovering urgent and emergency care services (2023)

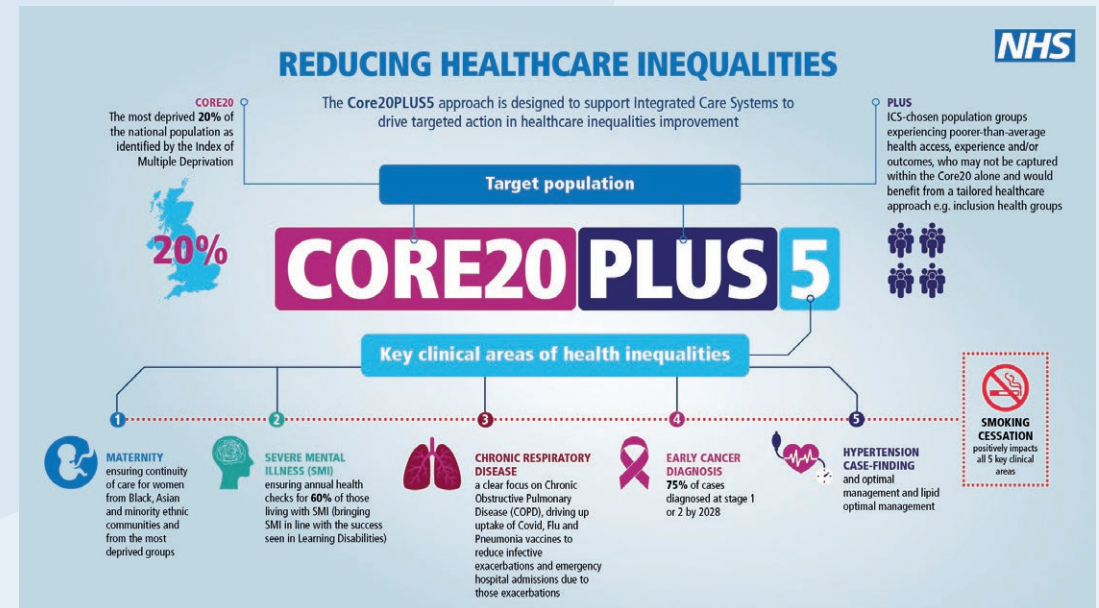
Published in January 2023, the latest delivery plan by NHS England highlights five key areas of focus⁵:

- **Increasing capacity** – investing in more hospital beds and ambulances, but also making better use of existing capacity by improving flow.
- **Growing the workforce** – increasing the size of the workforce and supporting staff to work flexibly for patients.
- **Improving discharge** – working jointly with all system partners to strengthen the discharge processes, backed up by more investment in step-up, step-down and social care, and with a new metric based on when patients are ready for discharge, with the data published ahead of winter.
- **Expanding and better joining up health and care outside hospital** – increasing capacity in out-of-hospital care, including virtual wards, so that people can be better supported at home for their physical and mental health needs, including avoiding unnecessary admissions to hospital.
- **Making it easier to access the right care** – ensuring healthcare works more effectively for the public, so people can more easily access the care they need, when they need it.

The delivery plan for recovering urgent and emergency care services sets out a number of ambitions, which are also highlighted in the NHS priorities and operational planning guidance for 2023/24⁶:

- **Patients being seen more quickly in emergency departments:** with the ambition to improve to 76% of patients being admitted, transferred or discharged within four hours by March 2024, with further improvement in 2024/25.
- **Ambulances getting to patients quicker:** with improved ambulance response times for Category 2 incidents to 30 minutes on average over 2023/24, with further improvement in 2024/25 towards pre-pandemic levels.

Tackling health inequalities in urgent and emergency care



[Learn more](#)

In 2021, NHS England launched its national Core20PLUS5 approach⁷, to inform action to reduce healthcare inequalities at both national and system level. The approach defines a target population – the ‘Core20PLUS’ – and identifies ‘5’ focus clinical areas requiring accelerated improvement: maternity, severe mental illness, chronic respiratory disease, early cancer diagnosis, hypertension case-finding and optimal management and lipid optimal management.

In 2022, an additional Core20PLUS5 approach was published by NHS England, adapted to focus priorities for children and young people.⁸

Worsening levels of performance in urgent and emergency care have had a disproportionate impact on those who experience health inequalities. In 2021/22 NHS Digital reported that the 3 million people who live in the most deprived 10% of areas were twice as likely to attend A&E departments in England compared to the 1.5 million people living in the least deprived 10% areas.⁹

In principle, NHS services are provided to all. However, people within the [inclusion health groups](#) (such as homeless people, sex workers, Gypsy, Roma and Traveller communities) often struggle to access service and encounter difficulties in receiving care by not being able to access or engage with the NHS. According to [‘All Our Health’](#), the evidence demonstrates that socially many excluded people disproportionately depend on the use of emergency services at the time where their health needs become more urgent. This is partly a result of missed opportunities for preventative care and interventions, which extends the health inequalities.¹⁰

Between 2019-2020 Public Health England's National Health Inequalities team launched a review to redevelop the [Health Equity Assessment Tool \(HEAT\)](#). This tool is used by public and healthcare professionals to systematically assess equity-related and health inequalities activities and identify actions to reduce the inequalities, as well as promote inclusion.

NHS England's priorities and operational planning guidance for 2023/24 lists key measures to improve health and reduce inequalities¹¹:

- Update plans for the prevention of ill-health and incorporate them in joint forward plans, paying due regard to the NHS Long Term Plan primary and secondary prevention priorities, including a continued focus on cardiovascular disease (CVD) prevention, diabetes and smoking cessation. Plans should:
 - build on the successful innovation and partnership working that characterised the Covid vaccination programme and consider how best to utilise new technology such as home testing. NHS England will publish a tool summarising the highest impact interventions that can be – and are already being – implemented by the NHS.
 - have due regard to the government's [Women's Health Strategy](#).
- Continue to deliver against the five strategic priorities for tackling health inequalities and:
 - take a quality improvement approach to addressing health inequalities and reflect the Core20PLUS5 approach in plans.
 - consider the specific needs of children and young people and reflect the Core20PLUS5 approach to reducing health inequalities for children and young people in plans.
 - establish [High Intensity Use](#) services to support demand management in urgent and emergency care (UEC).

Patient and public perspectives

In 2022, Eastern AHSN was commissioned by NHS England to work closely with the general public to better understand their experiences and uptake of urgent and emergency care services, including how digital technology and innovation can be best used.

The Urgent & Emergency Care: acting on patient and public perspectives report details insights into people's day-to-day experience, including barriers and enablers to accessing appropriate services at the right time.

The thematic analysis of the findings from the rapid review and social listening exercise identified five key themes¹²:

- 1. Initial point of access:** participants' awareness and understanding of the different access points into UEC (in addition to A&E) and their experience of them.
- 2. Preference for face to face or virtual:** people's preference for accessing UEC in person or via a virtual route, whether that was NHS 111, telephone, video consultations or other remote access.
- 3. Delayed or inappropriate referrals or advice:** What advice people are receiving about where to go for UEC, and the impact of incorrect or delayed information on their experience.
- 4. Digital:** People's use of digital channels to access UEC, with particular attention paid to digital exclusion.
- 5. Connections:** How well and how often information was shared between staff, particularly when patients accessed multiple UEC services as well as primary care.

At a glance: the key challenges facing urgent and emergency care



Pressure on the NHS

In 2018/19 there were an estimated

564 million

patient interactions with GP, community, hospital, mental health, and ambulance services – that's **1.5 million** contacts every day. This is equivalent to every person in England being assessed, treated, and cared for by the NHS 10 times a year.¹³

The NHS responds to more than

110 million

urgent calls or visits every year.¹⁴



Waiting times

Patients waiting over 4 hours in A&E reached a record high of

45.2%

in October 2022.¹⁹



Increasing demand on urgent and emergency care

In spring 2022, the number of people going to A&E was above pre-pandemic levels.¹⁵

December 2022 was the busiest month on record for A&E in England with nearly

2.3 million

attendances, and ambulance services responded to **18% more** category 1 calls compared to the previous high.¹⁶

Demand for NHS 111 has increased, with annual growth of

6%

a year in calls in the five years before the pandemic.¹⁷

Community-based crisis services have seen a

30% increase

in referrals since before the pandemic.¹⁸



Capacity levels

Occupancy levels for hospital beds have been persistently high in 2022, with more than

95%

of beds filled.²⁰

Around **14,000** inpatients do not clinically need to be in hospital, accounting for around **13%** of occupied beds.²¹

It is predicted that an additional **23,000 to 39,000** beds would be needed in 2030/31 to deliver 2018/19 rates of care. This equates to 38 - 64 new hospitals, costing around **£17 billion - £29 billion**.²²



Ageing population

25%

Our population is ageing and more than **25%** of the population lives with two or more long-term conditions.²⁸

55%

The number of people aged over 85 is set to increase by **55%** over the next 15 years.²⁹

46%

The proportion of people with more than one health condition among those aged 65-74 is **46%**

This increases to **69%** among those aged 85+.³⁰



Length of stay

From April 2021 to October 2022, the average length of stay in acute hospitals increased by

18%

Over **6,000** more patients are spending longer than a week in hospital compared to pre-pandemic levels.²⁴

Length of stay has significantly increased in mental health inpatient care, with

20%

of all people staying longer than 60 days.²⁵



Inequalities

Rates of A&E attendances for people living in the most deprived areas are nearly **double** that of those in the least deprived areas.²⁶

People living in more deprived areas are most likely to be on an NHS waiting list and most likely to experience a very long wait. Nearly **one-third** of people on the NHS waiting list say their condition has worsened or they have developed another condition whilst waiting.²⁷



Respiratory³¹

Respiratory disease affects

1 in 5

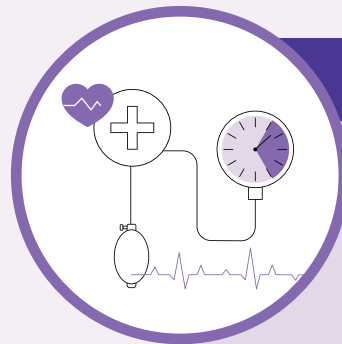
people and is the third biggest cause of death in England (after cancer and cardiovascular disease).

Lung cancer, pneumonia and chronic obstructive pulmonary disease (COPD) are the biggest causes of death.

Hospital admissions for lung disease have risen over the past seven years at **3 times** the rate of all admissions generally.

Respiratory diseases are a major factor in winter pressures faced by the NHS. Most respiratory admissions are emergencies and during the winter period these **double** in number.

The annual economic burden of asthma on the NHS in the UK is estimated as **£3 billion** and COPD is estimated as **£1.9 billion**. In total, all lung conditions (including lung cancer) directly cost the NHS **£11 billion** annually.



Cardiovascular disease (CVD)³²

CVD affects around

seven million

people in the UK and causes around **a quarter** of all deaths in the country.³³

CVD is responsible for

1 in 4

premature deaths in the UK and accounts for the largest gap in health life expectancy.

CVD is the largest cause of premature mortality in deprived areas. People in the most deprived 10% of the population are almost **twice** as likely to die as a result of CVD as those in the least deprived 10%.

You are more at risk of CVD if you have diabetes or a family history of heart disease, if you are a smoker, or are from a black, Asian and minority ethnic background.

People with a severe mental illness have a

53%

higher risk of having CVD and **85%** higher risk of death from CVD.



Mental health³⁴

Demand for crisis mental health services has **doubled** since 2017.

More than **90,000** people a month are referred to community crisis services.

Around **200,000** people a month call 24/7 crisis lines.

Less than **2%** of people who call 24/7 mental health crisis lines go on to attend A&E for further support.

Urgent and emergency care: opportunities and considerations for innovation

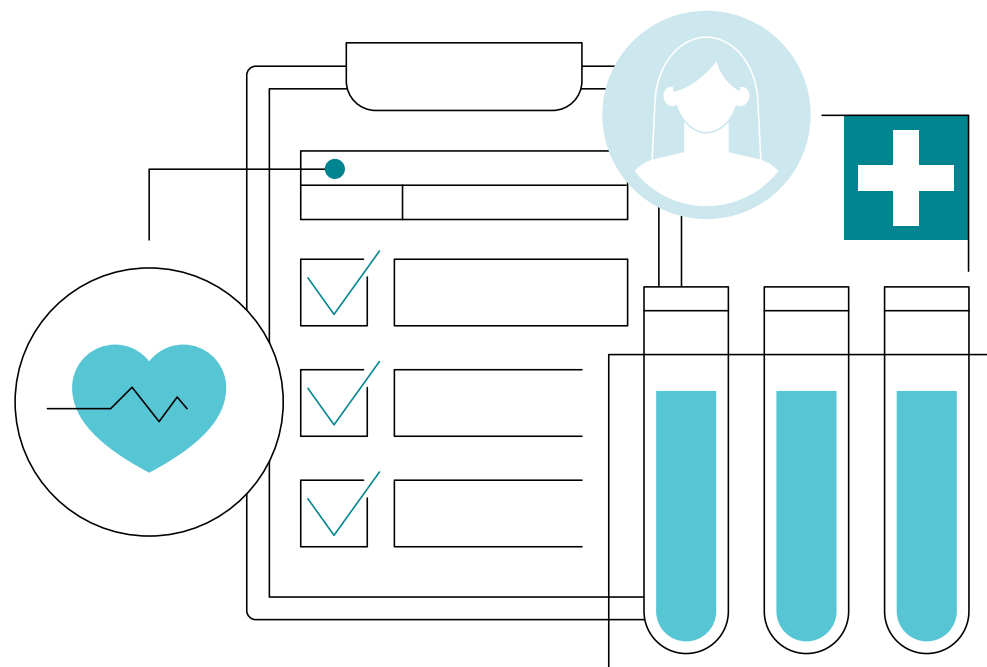
NHS England's ultimate vision for Urgent and Emergency Care, as stated in the [Recovery Plan](#) published in January 2023, is for patients to have access to the right care, in the right place, in a timely way.³⁵

The significantly increasing pressure and demand on Urgent and Emergency Care, illustrated by both the published literature and in conversations with our local health and care systems, demonstrates a clear need for reimagining and solving the challenges in different ways.

Our Integrated Care Systems aspire to work in a more joined-up way by providing a cohesive network of health and social care support, enabling care closer to home through primary care, pharmacies or self-management approaches as an alternative to emergency departments wherever appropriate.

"The challenges we are seeing across urgent and emergency care, with the worst waiting times in A&E on record and pressures across the whole healthcare system, represent a huge opportunity for innovation. If innovators and our clinical systems collaborate around seeking solutions to the sticky problems in this area, there is real potential to create lasting improvement in performance and outcomes."

Alex Leach,
Deputy Director of Programmes,
West of England AHSN



Opportunities

The West of England AHSN would like to hear about technologies, approaches or solutions that can build on and augment existing interventions by improving their efficacy, engagement and delivery. These solutions may focus on pathway redesign and management, self-care, monitoring, diagnosis or treatment and intervention.



Key areas of focus for innovators looking to tackle issues in urgent and emergency care may include:

- Using complex data better to frame, remodel and **manage system-wide risk**, in real-time and as a predictive tool, to allow operational and strategic decision-making for the benefit of patients and staff.
- **Supporting the redesign of care pathways** to encourage alternative ways of providing care outside the emergency department, including care delivered on site, through primary care, in the community, at home, and via NHS 111.
- **Ensuring better access and flow to the right people with the right skills, in the right place, at the right time;** enabling other non-emergency services to provide prompt care and assessment.
- **Increasing workforce capacity**, without compromising the quality of patient care and staff welfare.
- Enabling **safe and efficient discharge** from A&E, including increasing clinician confidence in supporting patients in home or community settings.
- Increasing **earlier intervention** through quicker assessments in out-of-hospital settings, including delivery of care at the point of need.
- **Boosting confidence and knowledge/skills** in assessing the need for emergency care in out-of-hospital settings, including care homes and primary care, in particular the assessment of children.
- **Early identification of deterioration** of at-risk patients with long-term conditions, including increasing patient confidence in monitoring and managing their own condition.

Considerations

The way in which we provide health and social care services in the UK is complex. There are numerous service providers (NHS, social care, the voluntary and charity sector), comprising experts with different areas of specialism, combined with multiple clinical pathways.

This means that patient journeys and experiences can be very different. When developing new solutions and ways of working, innovators need to consider the following:



- What was the design and development process of the innovation, and who was involved in it - have you involved **people with lived experience**, including patients, families, and carers?
- What steps were taken to ensure that the innovation provides **equity of access**? For example, is it easily accessible for disadvantaged or underserved communities? Could geographical location make it more difficult for some people to access?
- Have you thought about how people with a **learning disability** are able to access and use the innovation?
- How does the innovation or intervention support the [NHS Net Zero](#) agenda, such as decarbonisation or contribution to social value?
- Do you fully understand all the existing **pathways and processes** in relation to how your innovation will be used? Have you assessed both the intended and unintended impacts of your solution on the different parts of these pathways and people along the way?
- What is the **cost benefit** and affordability to the NHS and the integrated care systems throughout the life cycle of the intervention?
- What is the **evidence case** including health economics and real-world validation required by the health and care system for the implementation and adoption of the solution/intervention?

Innovator support from the West of England AHSN

Our industry support team provides essential guidance, signposting and business support to health and care innovators developing products and services with the potential to improve patient outcomes.



This support can include:

- providing early feedback and signposting on innovators' products or ideas and whether they meet identified needs
- identifying appropriate clinical pathways and feedback from clinical teams
- navigating grant and funding opportunities
- understanding the evidence the NHS would require for adoption and assessing gaps in company evidence
- assessing market readiness and support the development of an enticing NHS value proposition
- supporting innovators to run proof of value projects to gather the evidence required for commissioning.

The innovations we are looking to support include (but are not limited to):

- medical technologies and devices
- artificial intelligence
- robotics
- digital health (such as apps and platforms)
- novel pharmaceuticals
- diagnostics
- workforce support products and services
- new or improved services, processes, pathways and models of care
- training and education services and programmes.

Get in touch

We are keen to support innovators with promising products and services to develop their propositions, navigate and understand the NHS and social care as a marketplace, and get market ready.



Visit our Innovation Exchange

Our Innovation Exchange is a valuable resource for anyone developing innovations for the healthcare sector. It provides access to all our business services in one place, with various levels of the support available depending on the stage of your innovation journey.

www.innovationexchange.co.uk



Sign up for our support

If you would like to talk to us more about the bespoke support we can offer you, please [complete our innovation form](#). This will enable us to gain a richer picture of your innovation needs and how we might be able to assist you.



Email us

If you have any questions or comments about our Innovation Exchange, or you would like to access our wider services, please contact us at weahsn.innovation@nhs.net.



References



- 1 [The NHS Long Term Plan](#)
- 2 [What does the Long Term Plan mean for urgent and emergency care delivery?](#)
- 3 [Re-envisaging-urgent-and-emergency-care.pdf \(nhsconfed.org\)](#)
- 4 [2023/24 priorities and operational planning guidance](#)
- 5 [Delivery plan for recovering urgent and emergency care services](#)
- 6 [2023/24 priorities and operational planning guidance](#)
- 7 [Core20PLUS5 – An approach to reducing health inequalities for adults](#)
- 8 [Core20PLUS5 – An approach to reducing health inequalities for children and young people](#)
- 9 [Delivery plan for recovering urgent and emergency care services](#)
- 10 [Inclusion Health: applying All Our Health - GOV.UK \(www.gov.uk\)](#)
- 11 [2023/24 priorities and operational planning guidance](#)
- 12 [Urgent & Emergency Care: acting on patient and public perspectives](#)
- 13 [Activity in the NHS \(The King's Fund\)](#)
- 14 [About urgent and emergency care](#)
- 15 [NHS Key Statistics: England, November 2022](#)
- 16 [2023/24 priorities and operational planning guidance](#)
- 17 [2023/24 priorities and operational planning guidance](#)
- 18 [2023/24 priorities and operational planning guidance](#)
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- 20 [2023/24 priorities and operational planning guidance](#)
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- 22 [How many hospital beds will the NHS need over the coming decade? - The Health Foundation](#)
- 23 [Delivery plan for recovering urgent and emergency care services](#)
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- 25 [Delivery plan for recovering urgent and emergency care services](#)
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- 30 [Projections of multi-morbidity in the older population in England to 2035](#)
- 31 [NHS England: respiratory disease](#)
- 32 [NHS England » Cardiovascular disease \(CVD\)](#)
- 33 [Facts and figures - Information for journalists - BHF](#)
- 34 [NHS England » NHS expands mental health crisis services this winter](#)
- 35 [Delivery plan for recovering urgent and emergency care services](#)