REVAL
NIHR Rapid Service Evaluation Team

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Implementation of 10 high-impact initiatives in urgent and emergency care in England: a rapid exploration

Phase 2 Protocol

14th August 2024

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Evaluation Summary

Title	Implementation of 10 high-impact initiatives in urgent and emergency care in England: a rapid exploration
Background	The *NHS Delivery Plan for Recovering Urgent and Emergency Care Services* is a substantial two-year initiative aimed at enhancing care delivery for both service users and staff. Its primary goals include achieving at least 76% of people in 2023/24 coming to A&E being admitted, transferred, or discharged within four hours with further improvement to 78% expected in 2024/25 The recovery programme encompasses various foci, including streamlining discharge processes, expanding community-based care options, and enhancing communication and coordination across the health and care system to optimize patient flow and resource utilisation. In July 2023, NHS England sent the letter *Delivering operational resilience across the NHS this winter* to all Systems and Providers Highlighting 10 high impact initiatives. NHS Systems and Providers were expected to prioritise the delivery of at least four of these initiatives to drive performance improvement efforts locally.
Aims	To investigate delivery of high impact initiatives in urgent and emergency care **Research questions** National level data 1. What 'clusters' of high impact initiatives are being implemented in NHS Trusts in England? 2. How has NHS UEC performance change over time including during the 2023-24 recovery plan period? 3. Is there an interaction between UEC performance and the 'clusters' of high impact initiatives being implemented? Case level data 4. How are the high impact initiatives being delivered locally and what are their key service components? 5. How do the 'clusters' of high impact initiatives link with other services being implemented in the wider health system and how might this influence their impact? 6. Are there key features of NHS Trusts that enhance / inhibit organisational receptiveness and capacity to improve?
Design	Multi-site, multi-method evaluation that will combine national level analysis with in-depth exploration of local delivery via up to eight case sites.
Timelines	Provisionally August 2024 to July 2025
Funding	This research is an independent evaluation undertaken by the NIHR Rapid Service Evaluation Team (REVAL). REVAL is funded via a competitive review process by the NIHR Health and Social Care Delivery Research (HSDR) Programme (NIHR151666). The views expressed in this protocol are those of the author(s) and not necessarily those of the NIHR, NHS England or the Department of Health and Social Care.

Background

The NHS Delivery Plan for Recovering Urgent and Emergency Care (UEC) Services is a substantial two-year initiative aimed at enhancing care delivery for both service users and staff.[1] The programme has a significant focus on supporting service development to address on-going challenges in UEC via four key mechanisms. These are: diversion from acute hospital care, avoidance of admissions, enhancing communication and coordination across the health and care system to optimise patient flow and resource utilisation and supporting timely discharge. The programme's key metrics include achieving at least 76% of people coming to Accident and Emergency (A&E) being admitted, transferred, or discharged within four hours by March 2024, with further improvement to 78% in 2024/25. Additionally, it aims to improve ambulance response times for Category 2 incidents, targeting an average of 30 minutes over 2023/24 and aiming for pre-pandemic levels by 2024/25.

In July 2023, NHS England sent the letter *Delivering operational resilience across the NHS this winter* to all Systems and Providers on the approach to winter planning for the upcoming 2023/24 winter season.[2] The letter built on the initial Recovery Plan and highlighted ten 'high-impact' initiatives (see Table 1). Figure 1 provides an initial schematic outlining the suggested mechanisms for how the different initiatives could contribute to the key metrics outlined in the initial recovery plan. [1]

NHS Systems and Providers were expected to prioritise the delivery of at least four of the initiatives listed in the July 2023 letter, aiming to drive improvement efforts locally.

The REVAL team at University of Manchester commissioned by the National Institute for Health and Care Research (NIHR) to develop and conduct a very rapid, independent evaluation of the implementation impact of initiatives prioritised in NHS health and care systems as part of the Urgent and Emergency Care Recovery Plan. This very rapid 'Phase 1' formative evaluation (see Appendix 1 for phase 1 protocol) was designed to inform ongoing learning and to serve as a basis for future policies and evaluations. The REVAL team generated rapid insights on the practical implications of the July 2023 communication, focusing on the delivery of 10 specific high-impact initiatives, from a range of stakeholder perspectives.

In May 2024 a letter from NHS England, *Urgent and emergency care recovery plan year 2: Building on learning from 2023/24* [3] was sent to all Systems and Providers. This sets out learning from the high impact interventions from Year 1 and asks Systems and Providers to make further progress through 2024/25.

Further evaluation of the implementation and impact of these high impact initiatives are now required to inform decision making and future delivery. A recent review by the University of Sheffield [4] has identified the need for a more granular description of some initiatives to better understand the essential components. For example, 'single point of access' is an umbrella term that describes service models involving a range of care co-ordination services and processes which facilitate management of patients into the right care setting, with the right clinician/team, at the right time. There is considerable variation in how these models are enacted locally across the NHS, so recognition of the core components, and their links to the proposed mechanisms of impact on key metrics, will support further evaluation.

Additionally, whilst NHS Systems and Providers were also asked to prioritise at least four of the 10 initiatives and we lack information about how these are being clustered locally and any potential

impact the selection is having on improvement efforts. These clusters of initiatives are also linked within a complex health and care system, so it is important to consider inter-dependencies within this system as a whole. For example, it is likely that achievement of the recovery plan goals may be driven by an interaction between the clusters of high impact initiatives delivered at the Trust level and supported by a range of other interconnected services and processes being implemented in primary, secondary, community and social care.

To explore current delivery of the high impact initiatives to inform decision making and further delivery, considering some of the complexities noted above, will take a mixed methods approach that will combine national level analysis with in-depth exploration of local delivery via multiple case sites. We will map what clusters of high impact initiatives are being implemented in NHS Trusts in England, what UEC performance looks like over time and potential impacts of initiative delivery on any change. At a more granular level, we will explore the core components of these initiatives and understand how initiatives interact with each other and other services and processes to achieve the proposed mechanisms by which change may be achieved.

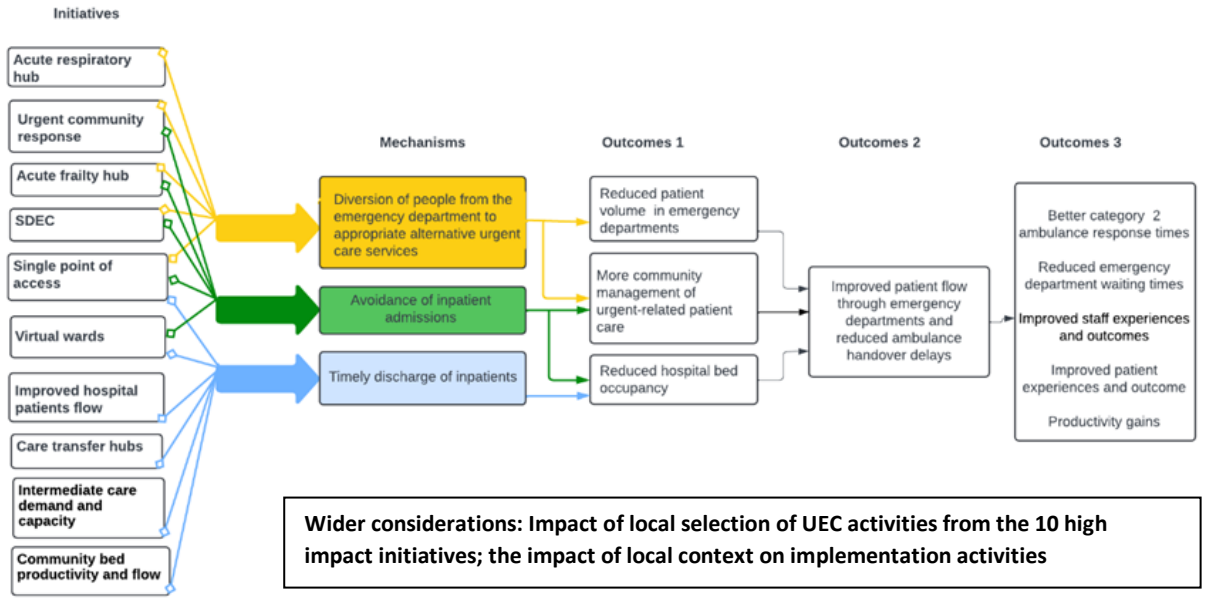


Figure 1: Schematic of proposed links between high impact initiatives and key outcomes

Aim and research questions

Aim: To investigate delivery of high impact initiatives in urgent and emergency care

Research questions

Stage 1

National level data

1. What 'clusters' of high impact initiatives are being implemented in NHS Trusts in England?
2. How has NHS UEC performance changed over time including during the 2023-24 recovery plan period?
3. Is there an interaction between UEC performance and the 'clusters' of high impact initiatives being implemented?

Stage 2

Case level data

4. How are the high impact initiatives being delivered locally and what are their key service components?
5. How do the 'clusters' of high impact initiatives link with other services in the wider health system and how might this influence their impact?
6. Are there key features of NHS Trusts that enhance / inhibit organisational receptiveness and capacity to improve around delivery of UEC outside of A&E?

Approach

Building on our Phase 1 formative evaluation, we propose a mixed methods approach that will combine national level analysis with in-depth exploration of local delivery via multiple case sites. We will map what 'clusters' of high impact initiatives are being implemented in NHS Trusts in England, their links to the mechanisms of change envisaged for each, how initiatives interact across health and care systems and potential impacts of initiatives or clusters of initiatives. Taking a case site approach will allow us to obtain granular information about the services and processes that make up the 'clusters' of high impact initiatives in a contemporary, real-time and real-world context.

Stage 1: Describing 'clusters' of high impact UEC initiatives assessing on-going improvement/performance (research questions 1 to 3)

Trust-level survey

To better describe the 'clusters' of high impact initiatives delivered at Trust-level we will distribute a brief on-line survey to all current NHS Trusts in England that have a type one A&E department. Informed by the activities of Phase 1, the survey will contain largely tick box, categorical responses and will aim to capture:

(1) The high impact initiatives currently being delivered in that Trust
(2) Other initiatives not in the high impact list that are thought to be relevant to improving key metrics
(3) The perceived mechanism for each selected initiative to impact on key metrics (i.e., diverting care, avoiding admissions and timely discharge)
(4) Any services outside the 'clusters' considered key for supporting delivery of these high impact initiatives

We will manage the survey process so that just one submission is generated for each Trust. This will be done by liaising with an individual contact from each Trust to gather a single return. These contacts will be Trust staff, identified by NHS England, with details then shared with the REVAL team. The survey will be developed and administered in Qualtrics. This is a University of Manchester IGO approved secure web platform. On completion, all response data will be submitted directly to the REVAL team, University of Manchester (IP address will not be collected).

We may wish to find out more about delivery in specific NHS Trusts. Within the questionnaire, participants will be asked to indicate their consent to share their professional contact details so we can provide further information about participation in a follow-up interview. For those providing consent to contact we will request respondents provide the following 'personal identifiable information': name, job title/role, email and or contact phone number.

We will analyse data descriptively to explore the number and types of initiatives selected across English providers, summarising clusters of delivery activity. We will also summarise data at the ICB/ICS level. The survey will give national insights into the clusters of selected initiatives, how selections map to potential mechanisms of improving key outcome and wider system actors linked to delivery.

Exploration of Trust-level UEC performance data

Using 2022-23 routine activity data (https://www.england.nhs.uk/statistics/statistical-work-areas/ae-waiting-times-and-activity/) as a baseline, we will assess all individual provider improvement/ performance before and during the 2023-24 recovery plan period against the core performance metrics (i.e, 4 hour wait; Category 2 ambulance response). We will focus on Trusts that have a current Type 1 emergency department only. Data summarised will include the total number of attendances in each calendar month for all A&E types, including Minor Injury Units and Walk-in Centres, and of these, the number discharged, admitted or transferred within four hours of arrival. We will also look at data on hospital bed occupancy over these same periods.

Depending on data availability for key performance metrics and our ability to define 'clusters' for each NHS Trust, we will use interrupted time series or multivariate analysis accounting for multi-level data with a series of 'time' or 'year' effects we will look to quantitatively assess performance changes over time to see if they are positive and significant. Time will be divided into three discrete periods:

- Before (pre recovery plan announcement in January 2023)

- During (development and implementation of 'Clusters' - February to September 2023)
- After (the exposure period from winter 2023 to end 2024/25)

We will also investigate whether there are interactions between time effects and other important variables/characteristics (e.g. NHS England Tiering/ exposure to ECIST support) to explore potential sources of heterogeneity.

Stage 2: In-depth exploration of high impact UEC initiatives (questions 4 to 6)

Identification of case sites

Insights from Stage 1 will inform selection of sites for Stage 2. We anticipate taking a maximum variation sampling approach, meaning case sites selected will differ in terms of performance and clustering of high impact initiatives. This allows us to explore variation in how aspects of UEC services are organised as well as areas of consistency.

We want to obtain a range of breadth and depth of information so are considering recruitment of six to eight case sites. The factors used to select case sites will include:

- Geographical spread
- Different cluster of initiatives being delivered
- 'high', 'low' and consistent performers on key urgent and emergency care metrics
- Most changed performers (e.g. most improved on key metrics in past 12 months)
- NHS England tiers of support (tiers 1–3)

Whilst we are not mapping processes per se, in each selected case site we will adopt elements of process mapping methods with application of qualitative methodology. We will gather information about each service or process to allow better description and delineation, and explore how each element intercalates in the Trust and wider system to better understand the operation and routes to impact of these initiatives. We will apply a simplified systems thinking theoretical lens to shape data collection and analyses – largely to explore the mechanisms by which the services and processes delivered by the initiatives individually and in clusters lead to the proposed changes outlined in Figure 1 and explored in Stage 1.

Data collection: interviews and focus groups

To understand how services (or processes) are structured and delivered we will undertake interviews with a purposive sample of professionals, starting with those actors identified in Stage 1. Where acceptable and feasible we will use a combination of individual interviews and focus groups to engage in a more discursive form information capture from those involved in service delivery. Each interview or group discussion will aim to explore the following areas:

Insights into the activities undertaken or care that is delivered by the initiatives considered to have been prioritised as part of the Recovery Plan

- Nature of the service components and processes that make up the high impact initiatives
- The staff involved in delivering the services or processes
- The physical location of the service, where relevant
- The target populations for each initiative and anticipated numbers
- The processes which facilitate timely management of patients to the right initiative
- The main metrics or key performance indicators targeted by each initiative
- The rationale for the selection and implementation of particular clusters of high impact initiatives
- Points of connection to other relevant services or processes in the health system
- Perceptions of current and future impact

During the interviews or focus groups we will capture information about the service components or processes on on-line Padlets, which participants will also have access to so insights can be shaped and refined during the sessions. These on-line spaces will be left live for a set period (1 week) after the sessions so people can add further details as required. Additionally, informants will be asked whether they have any documentation about their activities that can be shared with the team, either before or after the sessions.

To further understanding contextual influences on Trust performance we will explore system involvement in the selection, organisation and delivery of high impact initiatives with key informants from across the wider health system (i.e. ICB/ICS level). We will discuss any rationales for selection of services, awareness of any key tensions or synergies between system priorities and other services delivered beyond the individual Trust as well as overall perceptions on improvement/ performance.

Identification of staff within each case site

In each selected Trust, relevant staff will be approached initially by an e-mail invitation from the evaluation team that will include a copy of the participant information sheet and consent form. Those indicating interest in participation will then contact the evaluation team and a dialogue opened to answer any questions and arrange interviews or focus groups where agreeable, at a time to suit the participant(s). Snowball sampling will be used to recruit other participants who have the relevant insights into the delivery of UEC services required. We will also seek to recruited key informants from across the local health system including UEC Leads in ICB/ICS, ambulance providers and those organising and commissioning services across the secondary care, primary and community care interface. We will make it clear that participation is purely voluntary and that we will ensure that confidentiality around potential involvement is ensured.

Informed consent

All potential research respondents who are recruited for interviews will receive verbal and written information (participant information sheet) regarding the study and will be encouraged to ask questions prior to taking part. It will be made clear that participation is purely voluntary and respondents are able to withdraw from the study at any time, without giving a reason. We will obtain verbal consent before undertaking the telephone or Teams/Zoom interview which we will audio-record separately to the interview audio-recording.

Analysis of interview and focus group data

We will adopt a rapid approach to the analysis. Interviews and focus groups will be audio-recorded with consent, transcribed and analysed using a modified framework approach. [5] The matrix of summarised data will provide a structure for analysis and interpretation which is useful for policy research and is well suited to managing large datasets such as this. The coding framework will be iteratively developed as the interviews continue, through discussion at REVAL analysis meetings, with the NHS England team and with reference to relevant theory.

For each case site, information collected will be complied including development of a 'base case' schematic (evolving from Figure 1) that will give a visual description of each key service components or processes linked to the 10 high impact initiatives. Each will detail the core inputs (staff, service components, linkages to the local health system) and main mechanisms articulated in terms of optimising UEC (also considering data from Stage 1). The schematic, developed using Lucidchart a web-based programme for developing detailed charts and diagrams, and supporting details will be shared with those who contributed data to allow feedback and refinement of the details recorded to ratify each of these base cases.

Confidentiality, anonymity and data protection

With consent, all interviews will be audio-recorded using a secure University provided encrypted audio device. We will follow the University of Manchester's standard operating procedure for taking recordings of participants for research purposes: http://documents.manchester.ac.uk/display.aspx?DocID=38446). Recordings of the consent process and interviews will be transferred from the device as soon as possible to secure University servers (so that de-identified data is stored separately to consent data) and then deleted from the device. Consent recordings will be stored on the University's secure servers for 5 years. Transcription of audio-recordings will be undertaken by a University of Manchester approved external transcription company. Audio recordings will be uploaded to the transcription company via a secure server. We will remove any personal identifying information (such as names, places) from transcriptions once they are returned. We will securely destroy the audio-recording of each interview, once an interview has been transcribed and the research team has checked the transcription for accuracy.

Once a respondent enters the study, they will be provided with a unique identifier. This means that data including field notes, audio recordings, transcriptions and demographic data will be identified only by their unique identifier and not the name of the respondent. The 'pseudonymisation key' to the unique identifier and respondent's details (name, contact details, site and job title), will only be accessible to members of the research team and stored electronically on a University of Manchester secure server, separate to the de-identified data. Data will not be fully anonymised for the duration of the study and the psuedo-anonymisation key will remain in place for the duration of the study. Electronic data (such as digital audio-recordings, transcriptions, field notes, and demographic data) will be stored on a University of Manchester secure server. Hard copies of consent forms and demographic data will be kept in a locked cabinet in a locked room on university premises. Once the study is finished, data will be archived securely for 10 years, after which time it will be securely destroyed.

Alongside this we will maintain the anonymity of the participating organisations and individuals and will publish findings that are anonymised and aggregated. Where necessary, we may also generalise

job titles to protect the anonymity of those in specialist roles or where job titles are specific to an individual organisation. This is standard practice for us. It is worth stating that FOI requests can be made to us as researchers BUT we can refuse to release any data we collected that was subject to a confidentiality agreement (in this instance signed/verbal consent form) as release would be a breach of that confidentiality agreement. A further safeguarding is that personal details of participants cannot not be released under freedom of information requests.

Data collection: surveys

To explore *organisational receptiveness and improvement climate*, alongside the qualitative methods described above, quantitative data on receptiveness will be collected from senior representatives in each of the case sites. There are a number of validated measures available designed to assess organisational receptiveness to change and the prevailing improvement culture. These include measures such as the Implementation Climate Scale [6] and NoMAD questionnaire.[7, 8] The Implementation Climate Scale data measures the receptiveness for improvement in case organisations, identification of those elements (e.g. educational support, openness, recognition, and rewards) that may underpin local efforts to improve. The NoMAD questionnaire measures the normalisation of complex interventions in routine practice and enables diagnosis of collective improvement processes over time. We will review these, and other relevant measures, and select those elements that are most likely to provide the most useful insights for Question 6. In each case site, the survey sample will be drawn from the core list of identified actors involved in the organisation and delivery of one or more of the high impact initiatives. Each respondent will be asked to cascade to those they think the survey would be relevant to. The survey will be administered via email and administered again in Qualtrics. Data will be analysed using the approaches recommended by the instrument developers and will be presented descriptively and at an aggregate level.

Comparative case site analyses

The research team will undertake a final stage of data analyses where they will triangulate data from across case sites to explore patterns and summarise key service components of initiatives and, if possible, wider clusters. Individual local service maps will then be synthesised into an overarching change model that develops on Figure 1 to enhance our understanding of how the inputs contribute individually and collectively to desired and sustained improvement and some of the conditions that may be required. The development of this theory of change model will also reflect other relevant inputs consider necessary for change to occur. The refined model could be used to guide future longitudinal evaluation.

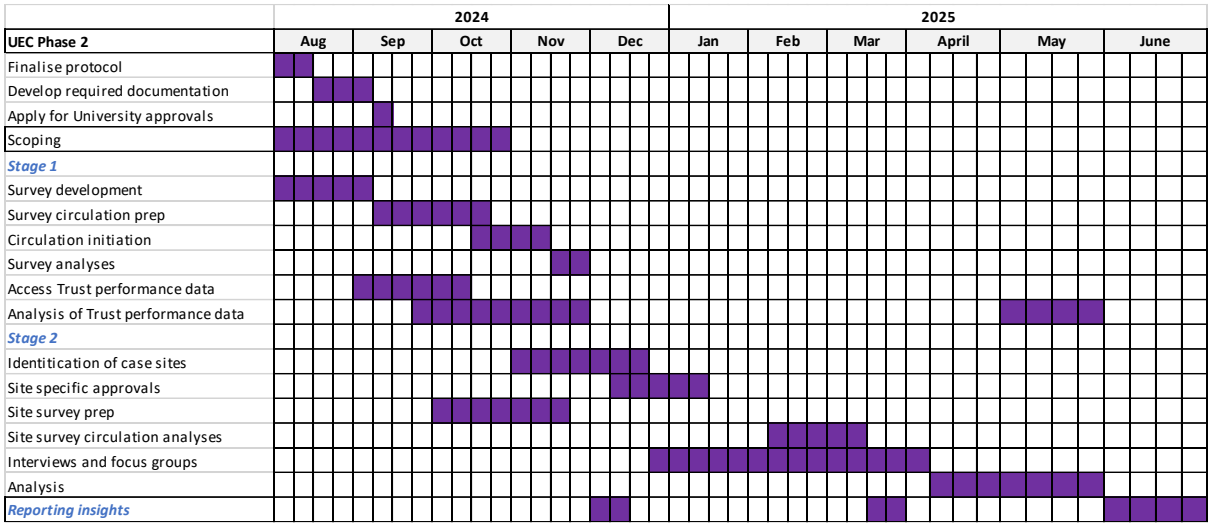
Anticipated deliverables

- A summary of high impact initiative delivered nationally, how these are clustered, presented by level of Trust performance on key UEC metrics.
- Insights into the services components and processes being delivered within the high impact initiatives and key elements of these

- Better understanding of the links between initiatives within the UEC sub-system and out to the wider health system.
- Overview of the theory of change by which clusters of initiatives may achieve change in key UEC metrics
- Information on key provider features that may underpin local efforts to improve.

Timelines

Indicative timelines are presented below and we expect the evaluation will run for 12 months from August 2024 to July 2025. We present timelines to June 2025 with July 2025 reserved for contingency and any slippage in data collection.



Patient and public involvement and engagement

As a team we have committed to ensure that we actively listen to and involve citizens in all aspects of our work. A public, patient involvement and engagement plan for the evaluation will be developed in partnership with our REVAL public partners.

The research team will form an initial Public Advisory Panel. Members bring a range of skills, knowledge, and expertise and will ensure that a diverse public voice informs the evaluation that we do and the methods we use. The Advisory Panel model will be iteratively formed reflecting the nature of the evaluation, and we will re-visit the model throughout the course of the evaluation to include additional representation and expertise as necessary. We will consult with the Advisory Panel at regular points during the evaluation lifespan to facilitate ongoing collaboration for input and feedback into the evaluation process, including in the early stages of the evaluation seeking ongoing advice on recruitment approaches, and development of interview topic guides.

Dissemination and knowledge mobilisation

To ensure relevance to national decision-making need and to maximise the impact and usefulness of findings, we intend to actively engage with key stakeholders at all stages of the research process, not only to ensure efficient use of NIHR resources, but also to maximise the impact and use of findings as they emerge. Our preference is to facilitate this relationship, to provide timely feedback loops to inform decision-making and to provide insights from the evaluation as they emerge during the evaluation study.

We will do this by maintaining regular monthly contact with the NHS England UEC National Team. The national UEC Clinical Reference Group which also meets monthly will provide clinical insight and advice on operational matters for the duration of the evaluation.

Monitoring and Quality Assurance

The study will be subject to the NIHR Evaluation, Trials and Studies Coordinating Centre audit and monitoring requirements stated in the agreed research contract between the Secretary State for Health and Social Care and the University of Manchester. The study will be subject to the audit and monitoring regime of the University of Manchester.

The research team will gain appropriate ethical and governance approvals for the evaluation. The study will be conducted in full conformance with all relevant legal requirements and the principles of the Declaration of Helsinki, Good Clinical Practice (GCP) and the UK Policy Framework for Health and Social Care Research 2017.

Statement of Indemnity

The University of Manchester has insurance available in respect of research involving human subjects that provides cover for legal liabilities arising from its actions or those of its staff or supervised students. The University also has insurance available that provides compensation for non-negligent harm to research subjects occasioned in circumstances that are under the control of the University.

Funding

This is an independent rapid evaluation undertaken by the NIHR Rapid Service Evaluation Team, REVAL based at the University of Manchester. REVAL is funded via a competitive review process by the NIHR Health Services and Care Delivery Research Programme (NIHR151666). The views expressed in this protocol are those of the author(s) and not necessarily those of the NIHR, NHS England or the Department of Health and Social Care.

Research Team

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Maartje Kletter	Research Associate
Elaine Harkness	Data Analysis
Luke Munford	Data Analysis
Pete Bower/ Nicky Cullum/ Evan Kontopantelis	Methodological advice and support

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Table 1: Summary of high-impact initiatives options as part of the UEC recovery plan

Initiative	Focus	Anticipated changes and process impacts	Current linked operational planning guidance requirements [3]
Same day emergency care	Same day care (assessment, diagnosis, treatment, and discharge) for people with an emergency health issue to avoid a hospital admission.	Reducing variation in SDEC provision by providing guidance about operating a variety of SDEC services for at least 12 hours per day, 7 days per week	Ensure all Type 1 providers have an SDEC service in place for at least 12 hours a day, 7 days a week
Acute frailty services	Service that identifies and assess frail patients soon after their arrival to hospital.	Reducing variation in acute frailty service provision Improving recognition of cases that could benefit from specific frailty services and ensuring referrals to avoid admission	Ensure all Type 1 providers have an acute frailty service in place for at least 10 hours a day, 7 days a week
Acute Respiratory Infection Hubs	Service provision for the rapid assessment of people with acute respiratory infections, aiming to provide same day assessment to people referred from multiple sources.	Support consistent roll out of services, prioritising acute respiratory infection, to provide same day urgent assessment with the benefit of releasing capacity in ED and general practice to support system pressures	
Urgent Community Response	Delivery of urgent care to people in their homes, with referrals from multiple sources	Increasing volume and consistency of referrals to improve patient care and ease pressure on ambulance services and avoid unnecessary admissions	Increase referrals to and the capacity of urgent community response services
Virtual wards	Virtual wards aim to deliver acute hospital level in-patient care in people's homes. Use of technology is likely to play a role in these models.	Standardising and improving care across all virtual ward services to improve the level of care to prevent admission to hospital and improve discharge	Focus on reductions in the number of patients still in hospital beyond their discharge ready date Improve access to virtual wards through improvements in utilisation, access from home pathways, and a focus on frailty, acute respiratory infection, heart failure, and children and young people
Inpatient flow and length of stay (acute)	Implementing in hospital efficiencies to support patient flow and timely, efficient discharge.	Reducing variation in inpatient care and length of stay for key UEC pathways/conditions/cohorts by implementing in-hospital efficiencies and bringing forward discharge process for pathway 0 patients	Focus on reductions in the number of patients still in hospital beyond their discharge ready date
Community bed	Implementing community bed focused efficiencies to support patient flow and	Reducing length of stay and variation in inpatient care by implementing in-hospital	Focus on reductions in the number of patients still in

productivity and flow	timely and efficient discharge.	efficiencies and bringing forward discharge processes	hospital beyond their discharge ready date Focus on reductions in length of stay in community beds
Care Transfer Hubs	A system level service that links relevant care services (e.g., acute, primary, community, local authority and third sector) to co-ordinate care for people. Key focus on safe hospital discharge	Implementing a standard operating procedure and minimum standards for care transfer hubs to reduce variation and maximise access to community rehabilitation and prevent re-admission to a hospital bed	Focus on reductions in the number of patients still in hospital beyond their discharge ready date
Intermediate care demand and capacity	Supporting the operationalisation of ongoing demand and capacity planning, including through improved use of data to improve access to and quality of intermediate care including community rehab.	Supporting the operationalisation of ongoing demand and capacity planning, including through improved use of data to improve access to and quality of intermediate care including community rehab	Focus on reductions in the number of patients still in hospital beyond their discharge ready date Expand bedded and non-bedded intermediate care capacity, to support improvements in hospital discharge and enable community step-up care
Single point of access	Single point of referral for urgent care requirements. Aims to maximised care co-ordination which will facilitate whole system management of patients into the right care setting, with the right clinician/team, at the right time	Driving standardisation of urgent integrated care co-ordination which will facilitate whole system management of patients into the right care setting, with the right clinician/team, at the right time	Provide integrated care co-ordination services

Appendix 1

REVAL
NIHR Rapid Service Evaluation Team

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Initial signals of impact from the urgent and emergency care 10 high-Impact initiatives: a rapid exploration

Plan of Investigation

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Background

- Hospital occupancy in the NHS is high. The UK has an aging population with complex health needs that already places pressure on hospital bed capacity. The addition of seasonal increases in COVID and flu adds additional pressures across the health and care system more widely.
- High hospital occupancy can impede the delivery of timely and appropriate care to service users who enter the hospital system via urgent and emergency care.
- People arriving to A&E departments can experience long waits including those arriving in ambulances.
- Hospital systems are complex and linked, so whilst problems are observed in urgent and emergency care (UEC) departments and ambulance services, they are linked to other issues, especially capacity in wards. A major bottleneck is the timely discharge of patients who no longer require in-patient care.
- The NHS Delivery Plan for Recovering Urgent and Emergency Care Services is a significant two year programme of work aiming to improve care deliver for service users and staff.
- The overarching ambitions of the programme are to (1) see at least "*76% of patients coming to EUC being admitted, transferred or discharged within four hours by March 2024, with further improvement in 2024/25*" and (2) see" *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*".
- The programme has multiple foci, which include: (1) improving discharge processes so that patients who are ready to leave hospital are recognised and have suitable community-based care to be discharged or stepped-down to as required; (2) increasing the use of care services that can replace use of UEC and in-patient hospital services, meaning capacity is available for those who need it most; (3) supporting all parts of the health and care system to communicate and link as appropriately and effectively as possible so that patient flow is optimised using available resources and patients get the care they need when they need it.

- The improvement plan is supported by support from NHSE to help guide and facilitate improvement in urgent and emergency care provision.

High-impact initiatives that are the focus of evaluation

Part of the UEC recovery plan involved implementation of a range of initiatives all aiming to ameliorate pressures on hospital occupancy – all taking a different route to this. Table 1 briefly summaries these 10 high-impact initiatives; of these local organisations were expected to prioritise the delivery of at least four to facilitate improvement efforts locally.

Table 1: Summary of high-impact initiatives options as part of the UEC recovery plan

Initiative	Focus	Anticipated changes and process impacts	Our classification
Same day emergency care	Same day care (assessment, diagnosis, treatment and discharge) for people with an emergency health issue to avoid a hospital admission.	Reducing variation in SDEC provision by providing guidance about operating a variety of SDEC services for at least 12 hours per day, 7 days per week	Alternative acute care provision
Acute frailty services	Service that identifies and assess frail patients soon after their arrival to hospital	Reducing variation in acute frailty service provision Improving recognition of cases that could benefit from specific frailty services and ensuring referrals to avoid admission	Alternative acute care provision
Virtual wards	Virtual wards aim to deliver acute hospital level in-patient care in people's homes. Use of technology is likely to play a role in these models.	Standardising and improving care across all virtual ward services to improve the level of care to prevent admission to hospital and improve discharge	Alternative acute care provision
Urgent Community Response	Delivery of urgent care to people in their homes, with referrals from multiple sources	Increasing volume and consistency of referrals to improve patient care and ease pressure on ambulance services and avoid unnecessary admissions	Alternative acute care provision
Acute Respiratory Infection Hubs	Service provision for the rapid assessment of people with acute respiratory infections, aiming to provide same day assessment to people referred from multiple sources.	Support consistent roll out of services, prioritising acute respiratory infection, to provide same day urgent assessment with the benefit of releasing capacity in ED and general practice to support system pressures	Alternative acute care provision

Inpatient flow and length of stay (acute)	Implementing in hospital efficiencies to support patient flow and timely, efficient discharge	Reducing variation in inpatient care and length of stay for key iUEC pathways/conditions/cohorts by implementing in-hospital efficiencies and bringing forward discharge process for pathway 0 patients	Management of patient flow
Community bed productivity and flow	Implementing community bed focused efficiencies to support patient flow and timely and efficient discharge	Reducing length of stay and variation in inpatient care by implementing in-hospital efficiencies and bringing forward discharge processes	Management of patient flow
Care Transfer Hubs	A system level service that links relevant care services (e.g., acute, primary, community, local authority and third sector) to co-ordinate care for people. Key focus on safe hospital discharge	Implementing a standard operating procedure and minimum standards for care transfer hubs to reduce variation and maximise access to community rehabilitation and prevent re-admission to a hospital bed	Management of patient flow
Intermediate care demand and capacity	Supporting the operationalisation of ongoing demand and capacity planning, including through improved use of data to improve access to and quality of intermediate care including community rehab	Supporting the operationalisation of ongoing demand and capacity planning, including through improved use of data to improve access to and quality of intermediate care including community rehab	Management of patient flow
Single point of access	Single point of referral for urgent care requirements. Aims to maximsed care co-ordination which will facilitate whole system management of patients into the right care setting, with the right clinician/team, at the right time	Driving standardisation of urgent integrated care co-ordination which will facilitate whole system management of patients into the right care setting, with the right clinician/team, at the right time	Management of patient flow

Proposed Plan of investigation

Aim: To investigate the implementation and impact of initiatives prioritised in NHS health and care systems as part of the Urgent and Emergency Care Recovery Plan.

Potential research questions: Below is a list of research questions we can use to identify any initial signals of impact from the implementation of the UEC initiatives – specifically, generating some insight into which, if any, of the initiatives might be making a difference.

Research Questions	**Main data collection method**
1. Which high impact initiatives have been prioritised locally?	Survey
2. What factors shaped decisions about which high impact initiatives to implement? (inc fit with organisational priorities)	Survey Interview
3. What key improvements were systems/organisations aiming to achieve by implementing the selected initiatives?	Interview
4. Are the initiatives being implemented as intended? *What is going well? What are the enablers?* *What is challenging? What are the barriers?*	Survey Interview
5. What systems do organisations have in place to monitor impact?	Interview
6. Have the initiatives led to improvements/impact as anticipated? (linked to Q3)	Survey
7. Which of the high impact initiatives do people believe are already or are most likely to improve UEC performance (specifically around 4 hour waits and category 2 response times?) *Are they able to provide evidence?*	Survey Interview
8. Have there been any spillover effects or other unintended consequences associated with the implementation of the initiatives so far?	Interview
9. How are views about the most impactful initiatives informing decision making about next steps locally?	Interview
10. Are there other initiatives to improve UEC performance that should be considered in this space?	Interview

Overview of proposed data collection approaches

The evaluation timeframe precludes in-depth engagement with every participating system and provider. Instead, we propose an initial ***high-level online survey*** of all systems and providers (n=200). This will seek to identify initial information on:

- What high impact interventions are delivered locally
- Whether interventions were new or existed prior to the recovery plan
- Any sources of support offered and or accessed
- How challenging interventions were to deliver within the recovery plan
- Whether there are any spillover effects or unintended consequences from delivery
- Which of the interventions are perceived to have been most impactful
- Whether the respondent is willing to participate in a follow up interview with the REVAL team

A draft version of the survey can be accessed at:

https://www.qualtrics.manchester.ac.uk/jfe/preview/previewId/f3ea5d0f-4e64-42ca-8d23-5b38865f18f8/SV_en7MGQHl64cHwF0?Q_CHL=preview&Q_SurveyVersionID=current

The online survey will be distributed via an email invitation sent by NHS England to all systems and providers. To maximise response rate, we will utilise all existing networks and channels supporting UEC communication (e.g. ECIST, USO, etc.). The survey will be developed and administered in Qualtrics. This is a University of Manchester IGO approved secure web platform. On completion, all response data will be submitted directly to the REVAL team, University of Manchester (IP address will not be collected).

To support response rate, we will supply text to NHS England that will pre-empt the questionnaire and asks people to block out 20 min in their diaries to complete this when it arrives on a given date. We will also ask NHS England to send the email from the inbox of, or on behalf of, a key individual in the team. We will ask NHS England to send two reminder emails.

The online questionnaire will contain largely tick box, categorical responses. Within the questionnaire, participants can also indicate their consent to share their professional contact details directly with the REVAL team, so we can provide further information about participation in a follow-up interview. For those providing consent to contact we will request respondents provide the following 'personal identifiable information': name, job title/role, email and or contact phone number. Data will be analysed and presented descriptively and at an aggregate level.

Interviews with survey respondents
We will follow-up with those respondents who provide consent to contact to arrange in-depth semi structured interviews with a purposive sample of system and provider leads. We anticipate being able to conduct between 20 and 40 interviews. When selecting potential participants from those who have consented for further contact, we plan to employ a maximum variation sample design to ensure:

- Coverage of all 10 of the high impact interventions deployed (where possible),
- Good geographical representation
- Grouping of providers in local health systems that have all implemented the same bundle of interventions

Coverage of area-level characteristics that might influence implementation at the local level will also be considered. We propose this includes selection of high and low performers based on NHS England tiers of support (tiers 1-3); ambulance handover times, self-assessed system maturity and or other metrics deemed relevant.

Interviews will be guided by research questions posed above and from sense making discussions with the wider NHS England team and the insights offered in the initial on-line survey. Our intention is to focus on how and why the high impact initiatives were selected, what if any implementation challenges have been encountered and whether there are any signals of impact (specifically around 4 hour waits and Cat 2 response times (but also considering other outcomes that respondents have noted in the survey). Where provider indicate that they have evidence of impact, this will be sourced.

The above interviews will be conducted with respondents who provide consent to contact

Interviews with other relevant contacts

As the aim of the study to rapidly identify any signals of impact, we will also seek opportunities to identify other key informants from across the UEC system (n=10-20). Discussions with the NHS England team and snowball sampling will be employed to identify suitable candidates. This will likely include members of the NHSE national team, UEC Regional Directors and Emergency Care Intensive Support Team (ECIST) Improvement Managers. These interviews will help the REVAL understand the policy context for the recovery plan, how support is organised and functions as well as any 'soft intelligence' relating to those high impact interventions that are perceived to be making a difference both locally and nationally.

Analysis of interview data
We will adopt a rapid approach to the analysis. Interviews will be audio-recorded with consent, transcribed and thematically analysed using a modified framework approach (Gale 2013). The matrix of summarised data will provide a structure for analysis and interpretation which is useful for policy research and is well suited to managing large datasets such as this. The coding framework will be iteratively developed as the interviews continue, through discussion at REVAL analysis meetings and through discussions with the NHS England team. Where time permits, we will reference findings to relevant empirical research and theory and to the other ongoing evaluative elements of the UEC Transformation and Improvement programme (e.g. appropriateness and effects of tiering, via data analysis and system deep dives).

Data protection and confidentiality
Service engagement with this rapid evaluation is necessary in order for us to deliver impact signals to NHS England. We are aware of the sensitive nature of this rapid work for organisations and for individuals. The REVAL team has experience in conducting evaluations on similar sensitive topics. We will be make it clear that participation is purely voluntary and that we will ensure that confidentiality around potential involvement is ensured.

The proposed interviews are not formal research interviews. Despite this we will send all potential informants details of our standard UoM processes for data protection and confidentiality ahead of an interview. The process will be explained at the start of any interview by the interviewer. We would like to audio record the discussions and if individuals would prefer to talk without a recording this is also possible. If an individual is uncomfortable with the recording process at any time during the discussion we will stop the recording. All audio files will be deleted after our note taking process is complete.

Alongside this we will maintain the anonymity of the participating organisations and individuals and will publish findings that are anonymised and aggregated. Where necessary, we may also generalise job titles to protect the anonymity of those in specialist roles or where job titles are specific to an individual organisation. This is standard practice for us. It is worth stating that FOI requests can be made to us as researchers BUT we can refuse to release any data we collected that was subject to a confidentiality agreement (in this instance signed/verbal consent form) as release would be a breach of that confidentiality agreement. A further safeguarding is that personal details of participants cannot not be released under FOI requests.

Anticipated deliverables

To ensure relevance to the needs of the NHSE England team our preference is to maintain regular contact to provide insights from the rapid evaluation as they emerge. We will do this via the weekly Friday meeting and through regular Teams / email contact. An insights briefing summarising any

initial signals of impact across providers and systems will be the core deliverable from this work. This will inform the development of the protocol for the 12 month rapid evaluation to follow.

Timelines

Tasks	Weeks											
	1	2	3	4	5	6	7	8	9	10	11	12
REVAL pilot survey												
NHSE team email invites to Regional Leads												
REVAL set up interviews with Regional Leads												
Analysis of interviews with Regional Leads												
REVAL refine survey questions												
NHSE team send pre-emptive survey email												
Survey distribution (round 1)												
Survey distribution (round 2)												
Survey analysis plan and coding developed												
Survey closed												
Survey analysed and insights report prepared												
REVAL set up interviews with survey respondents												
On-going interview conduct and analysis												
Draft insights report prepared												
Final insights report												

Note: The REVAL team will maintain regular weekly contact with the NHS England UEC team throughout the evaluation and will maximise opportunities to share early insights as the work progresses.

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