

**Police Involvement In Interagency Crisis Mental Health First Response Pathways In England:
A Realist And Cost Consequence Analysis.**

PIONEER-MH

Protocol version: 2.0: 11.09.25

Sponsor:	Cumbria Northumberland Tyne and Wear NHS Foundation Trust
Sponsor ref:	RES-21-010
Funder:	National Institute for Health Research (NIHR)
Funder ref:	NIHR 163578
REC ref:	25/NE/0159
IRAS number:	338641
Protocol registration:	Open Science Framework (OSF) https://osf.io/9wd8n/

CHIEF INVESTIGATOR

Dr Iain McKinnon

Consultant in Forensic Learning Disability Psychiatry / Hon Senior Clinical Lecturer

Northgate Hospital, Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust (CNTW), Morpeth,
Northumberland. NE61 3BP. UK
Wolfson Research Centre, Newcastle University, Campus for Ageing and Vitality, Newcastle upon Tyne. NE6
5PT. UK

Tel: 01670 394210

E-mail: iain.mckinnon@newcastle.ac.uk / iain.mckinnon@cntw.nhs.uk

CO-LEAD

Dr Nicola Clibbens

Professor in Mental Health Nursing (Joint Clinical Academic)

Coach Lane Campus, Northumbria University, Newcastle upon Tyne, NE7 7TR
St Nicholas Hospital, Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust (CNTW), Jubilee Road,
Newcastle-upon-Tyne, NE3 3XT.

Tel: 0191 2156771

E-mail: nicola.clibbens@northumbria.ac.uk / Nicola.clibbens@cntw.nhs.uk

SPONSOR

Ms Lyndsey Dixon

Research and Development Manager & Regulatory Compliance Lead

Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust (CNTW), Jubilee Road, Newcastle-upon-Tyne,
NE3 3XT

Email: Lyndsey.dixon@cntw.nhs.uk

Contents

1	Full Project Title	5
2	Background and Rationale	5
2.1	Overview	5
2.2	Why do police get involved in mental health crises?	5
2.3	Collaborative approaches.....	6
2.4	Recent development in the role of policing in mental health.....	6
2.5	Background to this proposal	7
2.5.1	Research Question	8
2.6	Identification of study sites	8
2.6.1	Study site 1 service design: Cumbria	8
2.6.2	Study site 2 service design: West Yorkshire.....	9
2.6.3	Study site 3 service design: Avon and Somerset.....	9
2.6.4	Study site 4 service design: South London.....	9
2.7	Rationale for this project.....	9
3	Aims and objectives	9
3.1	Study aim.....	10
3.2	Study objectives	10
4	Research Plan	11
4.1	Theoretical framework.....	11
4.2	Study design	11
5	Workstream 1: Development of IPTs, context development, and identification of data sources. 12	
5.1	Workstream 1: outputs	12
5.2	Workstream 1: methods	12
5.3	Workstream 1: Recruitment and sampling	12
5.3.1	Individual interviews	12
5.3.2	Documentary analysis	13
5.3.3	Stakeholder workshop	13
5.4	Workstream 1: data collection.....	13
5.4.1	Individual interviews and documentary analysis.....	13
5.4.2	Stakeholder workshops.....	13
5.5	Workstream 1: data analysis.....	14
6	Workstream 2: Testing the IPTs using mixed methods.	14
6.1	Workstream 2a: summary- not for ethical review until workstream 1 is completed.	14
6.2	Workstream 2b: outputs	14
6.3	Workstream 2b: Interviews and focus groups- ethical approval sought.....	14
6.3.1	Recruitment and sampling.....	14

6.3.2	Recruitment and eligibility criteria	15
6.3.3	Workshops	15
6.4	Workstream 2b: Data collection	15
6.4.1	Interviews and focus groups.....	15
6.4.2	Workshop delivery.....	16
6.5	Workstream 2b: Data analysis of interviews and focus groups.	16
6.6	Workstream 2a and b: Data synthesis (triangulation)	16
7	Workstream 3: Cost Consequence Analysis (CCA)- not for ethical review	17
7.1	Workstream 3: outputs	17
7.2	Workstream 3: cost consequence analysis methods	17
7.3	Workstream 3: sampling and data collection.....	17
7.4	Workstream 3: data analysis.....	18
8	Equality, diversity, and inclusion (EDI).....	18
9	Dissemination, outputs, and anticipated impact.....	18
9.1	What will be produced from the research?	18
9.2	How will you inform and engage service users, carers, NHS, social care organisations and wider population about your work?.....	19
9.3	How will the outputs enter the health and care system and society more widely?	19
9.4	What further support will be required if this research is successful (from NIHR, other government departments, charity or industry)?	20
9.5	What are the possible barriers for further research, development, adoption and implementation?	20
9.6	What will be the impact of the research and for whom?	20
9.7	How will you share with study participants the progress and findings of your research?..	20
10	Project management	21
11	Ethics	21
12	References	21

1 Full Project Title

Police involvement in interagency crisis mental health first response pathways in England: A realist and cost consequence analysis. PIONEER-MH.

2 Background and Rationale

2.1 Overview

There is a growing body of international evidence highlighting the extent of the intersection between crisis mental health problems and the role of community policing (1-5). These findings have come to the attention of policymakers and the public, with numerous recommendations made on how to improve pathways and outcomes for people experiencing a mental health crisis who encounter the police as first responders (6, 7). Policy and legal changes have come into effect: these have included moves to more collaborative working (8), changes to police powers under the Mental Health Act (9), and the RCRP (10) initiative, which is currently underway in England and Wales. There is a growing need for a more detailed understanding of how these complex interfaces work, how effective they are for people in crisis requiring a first response, and ultimately their cost effectiveness and sustainability. NHS data estimate that there are 250,000 calls to crisis teams per month in England (11). Mental health crises are rarely single events (12) and have a complex aetiology related to lifestyle, social circumstances, physical and mental health (13). Conceptualisation of mental health crises are aligned with individual values and beliefs about health and illness (14-16), informed by factors such as social stigma (17), or previous traumatic experiences (18) and inform if, when, and from whom people seek help (19). Consequently, people may make their first contact with services in a crisis in planned or unplanned ways and through a variety of community-based routes including mental health services, primary care, urgent care, voluntary sector, the ambulance service or the police (20).

A lack of inter-agency agreement about how these agencies ought to operate together to provide first responses has been linked to suboptimal outcomes including too many people being unnecessarily hospitalised, detained, or not reaching any support at all (21, 22). Whilst detention using appropriate legal powers is necessary for a minority of people where risks of harm are imminent, overuse of such powers is contrary to policy driving least restrictive approaches to mental health care (23). Equally, failure to provide accessible, co-ordinated first responses to mental health crises can contribute to catastrophic outcomes such as self-harm, suicide, unresolved distress and trauma (24, 25) or greater than necessary use of force (26).

2.2 Why do police get involved in mental health crises?

Whilst mental health services should provide interventions for people in mental health crises, for some people, any such crisis could manifest in a way that brings them to the attention of the police. Because a central facet of policing is to provide an immediate response to public safety, this means they can often respond more quickly than mental health services and end up being ‘first responders’ to a mental health crisis. The police in England also have legal powers not bestowed upon health providers: these include emergency powers under the Mental Health Act (1983) (27) to detain someone at risk of harm in a public place (S136) or to obtain a warrant to enter properties to access a vulnerable person (S135) (28).

The appropriateness of police services being first responders to mental health crises has been questioned as has the effect police first responders have on the person in crisis. Importantly, the experiences of minority ethnic populations of police interventions internationally are associated with disproportionate use of force (29, 30). A UK College of Policing report stated that “*black people have significantly lower than average rates of confidence in their police force*” (31). This is coupled with reports of disproportionate use of powers of detention using the Mental Health Act (23) and related mistrust of mental health services (32). Our own Patient and Public Involvement and Engagement (PPIE) work has identified a range of experiences related to police involvement in first responses including a lack of mental health training, “*mistrust*” of the police, risk of triggering traumatic

memories and a fear that police presence may “escalate” to arrest or detention. Conversely, some experts by experience believed the police have “saved lives” in certain circumstances and welcomed police and mental health staff “co-working” and responding to crisis situations together.

2.3 Collaborative approaches

In recognition of the need for interagency systems of support in England, the Crisis Care Concordat (CCC) (8) formalised interagency systems of crisis responses involving health, social care, voluntary sector, acute care, local authorities, and the police. An independent evaluation of the CCC identified that after twelve-months, people’s experiences of crisis care had improved and reduced both the number of people having their first contact with the police and the use of police stations as places of safety (33). Despite crisis services no longer being mandated nationally in England, their development continues to be a national priority identified in the NHS Long term Plan (34). This mirrored a worldwide move towards collaborative working between health and police to promote better crisis outcomes (35, 36). Such co-response models were not new in England, with two early adopter forces (Cleveland and Leicestershire). An evaluation of Cleveland’s service reported that the co-working model led to an 80% reduction in the use of short-term detentions by the police, with potential savings to police time and costs (37).

The CCC initiated nine Street Triage (ST) pilot sites with differing service configurations; some of the services involved mobile units with various combinations of police, mental health practitioner and/or ambulance response, and some comprised specialist mental health support via a telephone response (36). An evaluation of the nine pilot ST services in England reported modest reductions in police detentions but concluded that joint ownership of schemes to engender effective partnerships, joint training programmes, the co-location of health and police staff, and the co-location of services were associated with better outcomes and long-term sustainability (36).

It is difficult to obtain national statistics on ST use, but police statutory detention powers remain in frequent use. The latest available figures suggest the police detained almost 35,000 people where there was concern for the person’s mental state across England and Wales in 2022/23 (38). A systematic review found evidence suggesting that the police-mental health co-response may be more acceptable to service users than “standard” police only responses models and reduce the use of police statutory detention powers (39). Individual studies have reported reduction in the use of police holding powers in Norfolk and Suffolk (40) and Northumbria (41), alongside potential cost savings to the police in South Wales (42) and in Sussex (43). Studies that have been carried out are variable in quality and methodology, with no controlled studies investigating the effectiveness of co-response models (44). Furthermore, although there has been some investigation of the views of professionals (45), there has been limited focus on the views of people who have themselves accessed ST (46).

2.4 Recent development in the role of policing in mental health

Despite improved collaborative working following the CCC and the development of ST, UK police have consistently reported ambivalence about the extent of their role as first responders to mental health crises (10, 47). This relates firstly to mental health crisis responses diverting police resources away from their primary policing role and secondly to the police having a lack of expertise in dealing with such crises. Additionally, pressure in the urgent care pathway, despite comprehensive implementation of mental health liaison services (48, 49), alongside a reduced policing role in mental health services may further increase pressure on other emergency services including ambulance (50), and Emergency Departments (51). Economic and resource pressures such as these have heightened tensions between agencies about responsibility for first response for people presenting with mental health crises (14, 52).

Increasing involvement by the police in mental health calls has received substantial attention. In 2018, His Majesty’s Inspector of Police, Fire and Rescue Services (HMICFRS) published its report “Policing and Mental Health: Picking up the pieces” in which it cited “grave concerns about whether the police should be involved in responding to mental health problems to the degree they are” (53). A recent

Freedom of Information request reported in the Guardian newspaper, cited increases in logged mental health related incidents of 13.9% across 23 police forces in England and Wales (54). There has been little debate about what has led to these changes, although several commentators have noted the aftermath of the COVID-19 pandemic on mental health (55, 56), the increase in the cost of living and its impact on socio-economic wellbeing, in combination with funding for services not matching demand. In response, Humberside Police piloted a new policing strategy called Right Care Right Person (RCRP) between 2020 and 2021. This was intended to return police to their central roles of 1) protecting public safety and 2) investigating crime through application of a RCRP thresholds (see Figure 1) and return responsibility for mental health interventions to health services.

Figure 1 – Right Care Right Person thresholds (10)

- Is there a real and immediate risk to life or serious harm to an identified person?
- Is it a medical emergency?
- Is a child at risk of significant harm?
- Is the person suspected to have a mental health problem?
- Has a crime been committed?
- Is this a missing person report?

Over the course of the pilot, Humberside Police drew up arrangements with partner organisations to reduce its involvement in four phases as follows: 1) May 2020: concern for welfare, 2) Sept 2020: walkout or AWOL from a health service, 3) April 2021: transportation of patients and 4) Nov 2021: S136 & voluntary patients (27). Other police forces in England have followed this approach, and in July 2023 a national partnership agreement was signed to advocate the nationwide adoption of the RCRP strategy (10). The strategic plan included a continuation of locally developed health-led ST models and joint-working between police and health, but with the police subject to RCRP thresholds. National signatories have agreed to cross-agency implementation and monitoring of RCRP approaches at local level with NHS Integrated Care Board (ICB) oversight to ensure that people’s need for urgent mental health care continues to be met.

2.5 Background to this proposal

An HS&DR realist evidence synthesis (NIHR127709) led by Clibbens, focused on community mental health crisis services identified the central importance of integrated interagency services where there are shared goals and defined boundaries to achieve optimal crisis care (14). Uncertainty around cost effectiveness of interagency models involving ‘blue light’ responders, especially in such a rapidly evolving policy arena, informed recommendations for research to better define and test outcomes in different crisis services contexts. Gaps identified in the evidence related to rural contexts and for black and minority ethnic populations (14). In preparation for this proposal, a rapid realist evidence synthesis conducted by this team (57) built on these findings by focusing specifically on the role of police as first responders. The findings reiterate the importance of collaborative working between police and health services as this generates mutual understanding between staff across organisations that can lead to improved communication about the availability and purpose of co-response services improving the timeliness of responses and having potential to reduce the need for detention. Further findings identified the need for clarity about the geographic and role boundaries between different agencies and their staff, to enable ST services to meet local population need.

This team have also conducted a cross-sectional e-survey of police forces in England (unpublished data) in collaboration with colleagues from the College of Policing. The aim of the survey was to collect data pertaining to the history, current status, and future plans for co-response models involving the police across England. Of the 39 police forces in England, survey responses were received from 26, of which 23 currently provide ST and eight forces provided a tri-response that included police, mental health, and ambulance. All responding forces stated an intention to adopt the RCRP strategy. Detailed data were provided regarding the services design in each force including hours of operation, referral

routes, location, and leadership. These data were mapped with rates of S136 use, population data and the intersection with health and voluntary sector organisations. The findings from the realist evidence syntheses, survey and population data have been synthesised using a matrix to inform selection of four study sites.

2.5.1 Research Question

What is the impact of the Right Care Right Person (RCRP) policing strategy on the implementation, delivery, costs and outcomes of multi-agency first response mental health crisis pathways in England?

2.6 Identification of study sites

Study sites are conceptualised as ‘first response mental health crisis service pathways’ as illustrated in Figure 2. As the primary interest is in the impact of a rapidly changing policing policy on this service pathway, primacy has been given to police constabularies in England, followed by identification of each intersecting mental health first response, social care, and voluntary sector agency within the geography of each constabulary (Figure 2). Study sites have been selected for variation firstly according to the cross-agency service model and secondly related to health and population data. Four sites have been selected as some crucial factors were not present within fewer sites.

Population data for each study site in Table 1 show variation in population size, density, and rurality. Rates of deprivation vary from moderate to high with varied ethnic population data in each site. Rates of suicide in each area were broadly similar at between 3.01 and 3.98 per 10,000 pop. but there is a larger variation in the use of S136 in each study site.

Figure 2 Illustrative example study site

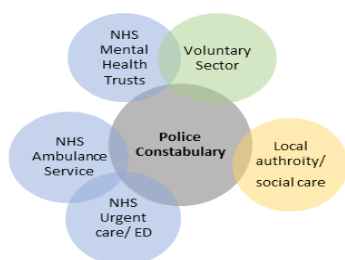


Table 1 Summary of population data in each study site

Study site	Population size by police constabulary area	Population density – people per km ²	Rural (%)	Deprivation (IMD, 2019)	Ethnicity (%)			Rates of S136 per 10,000 pop. 21-22
					White	Black	Asian	
1 Cumbria	498,083	73.88	81.78	21.26	97.63	0.24	0.98	10.06
2 West Yorkshire	2,332,469	1,149	12.76	28.51	76.60	3.07	15.85	5.59
3 Avon & Somerset	1,719,029	238-875	37.80	18.41	90.83	2.17	3.48	11.72
4 South London (Lambeth)	1,330,240	11839	0.0	25.10	51.00	24.34	10.82	6.86

2.6.1 Study site 1 service design: Cumbria

Cumbria constabulary commenced implementation of RCRP in May 2024. Cumbria currently delivers a ST service co-located in police premises that is jointly led by NHS and police. This study site intersects with The Northwest Ambulance service (NWAS) and two NHS Mental Health Trusts; Cumbria, Northumberland, Tyne, and Wear NHS Foundation Trust (CNTW) and Lancashire and South Cumbria NHS Foundation Trust.

2.6.2 Study site 2 service design: West Yorkshire

RCRP was implemented in 2023. West Yorkshire currently deliver ST in more than one site, each with different models of co-location, control room and joint response cars. The services are led differently, with examples of both joint leadership and health leadership and are available every day out-of-hours. Referrals are accepted via the police. The constabulary intersects with the Yorkshire Ambulance Service (YAS) and three NHS Mental Health Trusts; Leeds and York Partnership NHS Foundation Trust (LYPFT), Bradford District Care NHS Foundation Trust (BDCT) and Southwest Yorkshire Partnership NHS Foundation Trust (SWYFT).

2.6.3 Study site 3 service design: Avon and Somerset

Avon and Somerset currently deliver ST in two sites integrated with ambulance services as well as mental health services led by and co-located in health settings. Referral to these services is not restricted to the police and the service is open 24 hours every day. The constabulary intersects with Southwestern Ambulance Service NHS Foundation Trust (SWASFT) and two NHS mental health trusts; Somerset NHS Foundation Trust and Avon and Wiltshire Mental Health Partnership NHS Foundation Trust.

2.6.4 Study site 4 service design: South London

The Metropolitan Police Service (and British Transport Police) intersect with all metropolitan boroughs of London as does the London Ambulance Services NHS Trust (LAS). This study site is configured to primarily focus on one of the London boroughs (Lambeth) served by the South London and Maudsley NHS Foundation Trust (SLaM). The Metropolitan Police implemented RCRP from November 2023.

2.7 *Rationale for this project*

It is not clear from the current research evidence base why, following an increase in collaborative working between the police and mental health services, the police workload related to mental health has increased so much, prompting the most recent changes in policing policy. It is also far from clear what impact these changes will have on other services such as Mental Health Trusts, Ambulance Services, Emergency Departments, voluntary sector partners, and on the mental health outcomes of service users and carers in crisis situations.

Because of the rapid implementation of changes to police responses to mental health crises, there is an urgent need to carry out a rigorous evaluation to understand how first response services are re-configuring and measure the impact on outcomes for service users, carers, families, and other stakeholders. It is particularly important to investigate whether these changes impact disproportionately on people from disadvantaged backgrounds, whether that be socio-economic, cultural, based on ethnicity, or other factors.

In conducting this study now, the findings will inform those who commission, design and deliver services regarding the optimal configurations of interagency first responses (including those involving police and ambulance) in different geographic and population contexts thus enabling tailored implementation. The outputs from the study will also, through collaborative engagement with those who access crisis services, be substantially informed by a lived experience perspective.

3 Aims and objectives

3.1 *Study aim*

To understand and evaluate the implementation, delivery, costs, and outcomes of community multi-agency first response mental health crisis pathways in England in response to the policing strategy 'Right Care Right Person'.

3.2 Study objectives

- 1) Map the architecture of the first response mental health crisis pathway for each site for contextual development. This will be informed by documentary analysis and stakeholder engagement.
- 2) Through engagement with stakeholders across study sites, identify relevant outcomes relating to the implementation and delivery of 'Right Care Right Person' including supporting data sources within each study site.
- 3) Based on the mapping exercise, outcome identification and prior evidence syntheses, develop Initial Programme Theories (IPTs) pertaining to how 'Right Care Right Person' works, for whom, in what circumstances and why.
- 4) Using a mixed methods study design, test, refine and consolidate the IPTs within each study site, identifying what works well for whom, in what circumstances and why.

Objectives 5 relates to Workstream 2a (Interrupted Time Series Analysis)

- 5) Using a longitudinal observational study design, conduct a time series analysis of the routine data for outcomes identified in workstream 1 to inform a cost consequence analysis.

Objectives 6 and 7

- 6) Conduct a pre and post Right Care Right Person 'within site' and 'comparative across site' cost consequence analysis informed by data from workstream 2.
- 7) Synthesise findings and develop a budget impact analysis tool for use by decision makers to assess the financial consequences of adopting different service configurations for first response crisis services.

4 Research Plan

4.1 Theoretical framework

Mental health crisis first response services are conceptualised as complex interventions as defined by the Medical Research Council (MRC) (58) with impacts on multiple sectors including ambulance, police, health and the voluntary sector. Complex interventions trigger different human responses that interact in complex, often non-linear ways, and therefore result in highly context-dependent outcomes. Realist evaluation provides an optimal methodology for exploring how and why complex health interventions operating across health and non-health agencies may work or not work (59). According to the MRC framework, engagement with stakeholders, and theoretical development are critical to understanding key uncertainties (58).

Realist philosophy is theory driven and uses the notion of generative mechanisms activating in particular contexts to establish causal regularities, asking what works, for whom, in what circumstances and why (60). Mechanisms within realist research are conceived as the interaction between the resources provided by an intervention and the reasoning these are able to enhance in particular contexts, leading to measurable and/or observed outcomes (61). By acknowledging the context (i.e. features of the conditions in which phenomena are introduced), realist theory can identify how particular contextual factors impact on the operationalisation of the mechanisms. This is particularly important when looking at complex service interventions, such as mental health crisis first responses, where there is the potential for multiple pathways from implementation to impact.

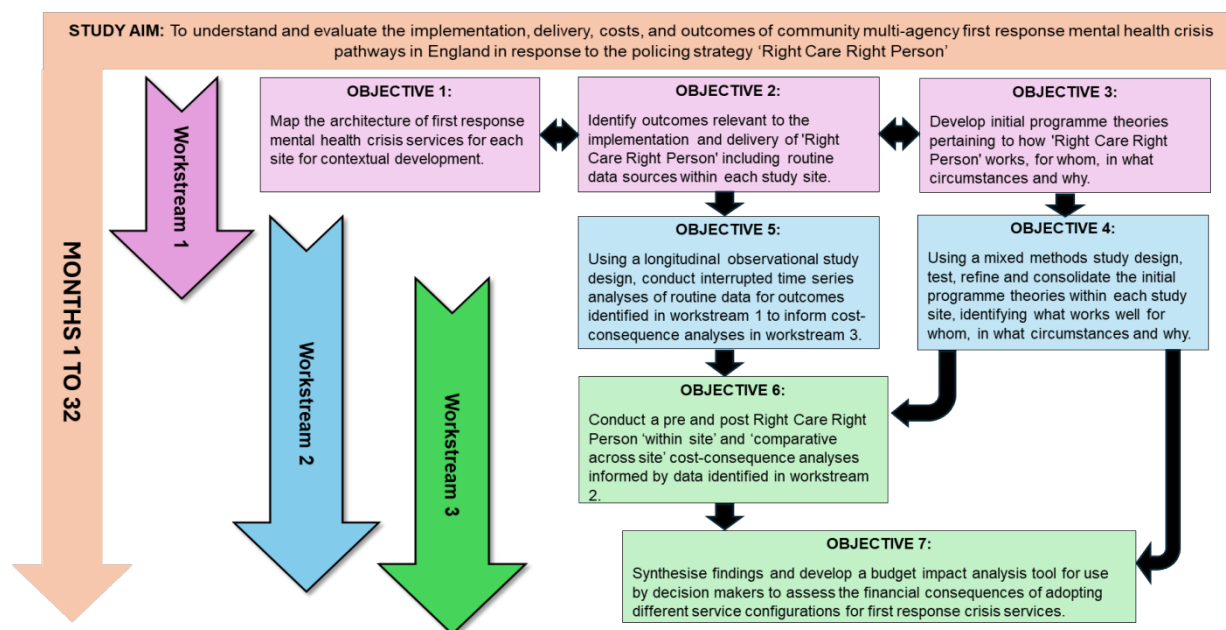
Further, the MRC framework includes a strong emphasis on understanding resource use (cost) and outcome effects (consequence) as a core component of all phases of intervention development thus ensuring that decision makers can examine the impact of different intervention pathways (58). Cost consequence analysis (CCA) has been recommended for complex interventions that have multiple effects and for public health interventions which have an array of health and non-health benefits that are difficult to measure in a common unit.

4.2 Study design

A realist study design (Illustrated in Figure 3), with embedded observational mixed methods will be used to evaluate the implementation, delivery, and outcomes of community multi-agency first response mental health crisis pathways in England, in response to the RCRP strategy (10). We will adhere to the Realist and Meta-narrative Evolving Standards RAMESES II guidelines (62), the Consolidated Health Economic Evaluation Reporting Standards (CHEERS) (63) and the Guidance for Reporting Involvement of Patients and the Public (GRIPP2) (64).

Patient and public involvement (PPI) and knowledge mobilisation approaches have been embedded across the study to ensure that theory development includes the voices of those receiving first response interventions as well as those delivering the services. Working with peer researchers, a PPI group and knowledge mobilisation workshops will optimise communication and dissemination of the study findings as well as providing opportunities to co-design pathways to adoption of recommendations (65). To increase the use of research findings, we will create a comprehensive knowledge mobilisation plan at the start of the study with input from the PPI and steering groups that outlines a variety of actions in response to the six knowledge sharing principles of the School for Public Health Research (SPHR) (66). The study aim will be met via two workstreams to 1) develop IPTs, 2) test, refine and consolidate programme theories. The methods for delivery of the study plan are presented according to each workstream. The study will end when all interviews and focus groups are completed and the final workstream 2b workshop has been conducted.

Figure 3- Study Design



5 Workstream 1: Development of IPTs, context development, and identification of data sources.

This workstream will meet objectives 1, 2 and 3. Ethical approval has been sought via IRAS/HRA for workstream 1.

5.1 Workstream 1: outputs

- Contextualised study sites with a map of architecture of first response pathways.
- A detailed data map of each study site.

- Developed IPTs pertaining to how multi-agency first response services 'work'.

5.2 Workstream 1: methods

The study site teams, and external stakeholders, will be consulted in individual interviews to discuss and map the architecture of first response pathways at each study site in addition to identifying locally relevant documentation (e.g. reports, strategic plans/policies) to contribute to understanding of the local context. Both exercises aim to generate a detailed understanding about the 'how' first response pathways should work, and the impact and outcomes they are expected to have. This information will be synthesised, culminating in the generation of causal, initial explanations of 'what works within the first response, for whom, under what circumstances and why?' in the form of IPTs (propositions about how an intervention is thought to work, under what conditions (67)).

The study team will work closely with each study site to identify key stakeholders and organisations holding routine data. Working closely with these partners will facilitate identification of data sources of relevant routinely collected data and initiate processes to access these data within sites and across sites for analysis in workstream 2.

5.3 Workstream 1: Recruitment and sampling

5.3.1 Individual interviews

A purposive sampling strategy will be used to recruit stakeholders in each of four study sites representing lived experience and police, ambulance, and health staff. Purposive sampling will be informed by the developing IPTs to identify participants who can deepen understanding (60). Recruitment will continue until there is a sufficiently coherent IPT and map of the agencies, services and processes involved in providing first responses to mental health crises in each study site.

A maximum sample of n=15 individual interviews in each study site (total n=60), this will aim to include n=5 service user/carer participants and n=10 staff participants at each study site. A minimum sample size across all four sites will be n=40. The sample size enables representation of different agencies, lived experience and professional perspectives with attention to underrepresented groups (e.g., ethnicity, and socioeconomic adversity). A sampling matrix will be used to ensure representation across the whole sample supported by collection of demographic data following NIHR equality, diversity, and inclusion recommendations, to maximise inclusion (67).

Recruitment will begin with organisational leaders within each of four police constabularies, NHS ambulance service and NHS mental health organisation and followed by further purposive (68) sampling of additional interviewees including, but not limited to commissioning, urgent care, voluntary sector, social care and local authority determined by the developing theory.

5.3.2 Eligibility Criteria

Service Users and carers/family

- People aged 18+ with experience of contact with first response crisis services (via police, ambulance, NHS 111/999, mental health services, emergency departments or voluntary sector) before and after Right Care Right Person (RCRP) implementation including service users.
- Carer participants (family or friends) will be included if they have provided unpaid care for a person who has had contact with first response mental health crisis services.
- Assessed as having capacity to consent (person obtaining consent will have received GCP/MCA training. At the point of obtaining consent, and at every point at which they take part in a form of data collection.)
- Not detained under the conditions of The Mental health Act (England and Wales)
- Community dwelling (not inpatient)

Staff

- Aged 18+

- Staff from first response crisis services, police, street triage services, mental health crisis services, ambulance, NHS 111/999, emergency departments, or voluntary sector, commissioners, and senior leaders at each study site who were employed before or after implementation of RCRP.
- Staff participants may have professional backgrounds in policing, ambulance/paramedic, nursing, allied health professions, psychology, psychiatry or their assistants. Peer support workers will also be included and may choose to identify as either staff or service user according to their wishes.

5.3.3 Exclusion criteria

Service users and carers/family

- People below the age of 18 years
- People who have no experience of accessing first response crisis services for themselves or another person (service user or carer).
- Not having capacity to provide informed consent.
- Currently detained under the Mental Health Act (England and Wales)
- Current inpatients

Staff

- People below the age of 18 years
- Staff without experience of delivering, designing, managing or commissioning first response crisis services.
- Staff working in services that do not provide or commission first response crisis services.

5.3.4 Recruitment

Potential policing staff participants will be identified using a PIC agreement between each NHS study site and the associated local area police constabulary via a named police contact and the local study team principal investigator and research assistant.

NHS staff participants will be identified using staff registers in each of the four NHS study sites. In addition, PIC agreements between each of four NHS study site organisations and geographically associated NHS organisations within the locality, including an ambulance trust, additional mental health trusts (providing crisis services), acute hospital trusts (with emergency departments) and commissioning organisations (e.g ICB). A named PIC contact in each PIC site will share contact details of potential participants with the local principal investigator and research assistant via a password protected email.

People with lived experience will be approached by the peer researchers or research assistant in each study site through NHS involvement systems and via local voluntary sector organisations providing mental health crisis services who will have a PIC agreement with the local NHS study site. In this work package lived experience participants are likely hold leadership or peer support roles (and may therefore be NHS staff) to inform the mapping of services and development of IPTs.

A poster will be used in hard copy and electronically in NHS study sites and PIC sites. These will be displayed in patient and staff areas and shared via NHS and PIC organisational electronic/email staff and patient facing bulletins and research newsletters within the services relevant to the topic of the research. Any specific groups within the study sites providing services to marginalised or minority groups of staff patients or carers (e.g. ethnicity, LGBTQ+) will be provided with hard copy and electronic posters about the study. Initial contact will be made by the principal investigator or research assistant withing the NHS study team in response to enquiries resulting from the poster, via email to potential staff participants and by email or telephone (when email is not available) to potential service user /carer participants. Initial email to potential staff and lived experience participants will include an attached participant information sheet, a consent form and contact details for a study researcher (who may be a peer researcher) with whom the participant will arrange an interview or by mail for anyone without access to an email address. Each potential participant will be sent two reminder emails two and three weeks after the date of the first email. If no response is received after four weeks from the first email, the individual will not be contacted again.

Given the multi-agency nature of the study and the aim to map first response services in each study site area, a snowball (69) sampling approach will be used. Interview participants will be invited to identify key organisations or individuals within their site multi-agency crisis services who can inform the mapping of the service or the development of IPTs.

5.3.5 Documentary analysis

During stakeholder interviews, participants will be invited to identify documents including but not limited to commissioning, service specification, practice guidance, RCRP implementation policies and local evaluations. Additionally, online searches will be conducted to identify key sources of information including national policy and guidance from relevant sites including but not limited to NHS England, The Kings Fund, The Centre for Mental Health, College of Policing, National and regional Ambulance providers, and national voluntary sector organisations (e.g., Mind).

5.3.6 Stakeholder workshop

Participants in the individual interviews will be invited to opt into a face-to-face workshop using eligibility criteria described in section 5.3.1 (and workstream 2 interviews and workshops) to validate and sense check the IPTs prior to testing in workstream 2. Due to the planned size and purpose of the workshop and the geographic spread of stakeholders, two workshops will be held. One workshop will recruit from, and be held in, a convenient location for the northern study sites (Cumbria and West Yorkshire) with n=20 stakeholders. A second workshop will recruit from, and be held in, a convenient location for the southern study sites (Avon & Somerset and South London) with n=20 stakeholders. Purposive recruitment strategies (outlined in section 5.3.1) and a sampling matrix will be used to ensure people with diverse backgrounds and experiences are involved as well as ensuring representation across sites, agencies, professions and lived experience. Particular attention will be paid to engaging participants from underrepresented groups, commissioning and policy perspectives.

5.4 Workstream 1: data collection

5.4.1 Individual interviews and documentary analysis

An initial topic guide and data extraction tool will be developed based on previously conducted evidence syntheses. Topic guides in realist research typically evolve as the programme theories develop, any substantial changes will be submitted for additional ethical review. Demographic data will be collected from interview participants to inform diversity in the sampling matrix. Data will be collected from included documents and via individual interviews about the architecture of the first response pathway in each site, focusing on the changing role of policing as well as the agencies and professions involved as first responders. A realist approach to the interviews will seek to uncover insights into relationships between context, mechanism, and outcome (70). Interviews and focus groups will be audio recorded using portable encrypted digital recorders or via Microsoft teams videocall. Recordings will be saved on NHS password secure computers as soon as practical following the data collection event and the original recording deleted. Transcription will be carried out by a transcription company with a confidentiality agreement and vendor contract with the study sponsor. Audio files and completed transcripts will be shared between the NHS and the transcription company via a secure password protected portal.

Following receipt of the transcripts, any identifiable data will be redacted, and the transcript assigned a code (pseudonymised) within the NHS prior to sharing with Northumbria University for analysis. Documentary analysis and interviews with senior leaders and clinical staff will seek to identify availability and accessibility of routine data in each site.

5.4.2 Stakeholder workshops

The stakeholder workshops will facilitate discussion about the IPTs developed from document analysis and stakeholder interviews. Methods will be used to optimise engagement with a heterogeneous group of stakeholders including small group discussions, the use of visual as well as text-based information and the presence of language interpreters.

IPT's will be discussed and presented to stakeholders (in accessible formats), to ascertain validity, discuss core concepts and refine where required. Small breakout groups from mixed expertise and backgrounds to maximise generative thinking. Researchers will join each breakout group to facilitate discussion and encourage stakeholders to verbalise, document or illustrate their ideas. Ideas formed in breakout groups will be brought together in large group feedback and discussion. This approach ensures that firstly the research is focused on theories of importance to those delivering and receiving the intervention, and secondly, that the IPTs are acceptable to participants, grounded in their experiences and identify mechanisms in each context that support the development and implementation of relevant interventions. Permission will be sought to audio record discussions via an encrypted portable recording device or via Teams and a live artist with a confidentiality agreement with the sponsor NHS Trust will generate images throughout the workshops to support the development of accessible summaries. Audio recorded and transcribed data will be managed as described in 5.4.1.

5.5 *Workstream 1: data analysis*

Data analysis within realist approaches takes a retroductive approach to identify 'hidden causal forces that lie behind identified patterns or changes in those patterns' (71) (p.1). Contextually relevant data from the stakeholder interviews and documentary analysis will be coded to identify outcome patterns and context, mechanism, outcome configurations. Emerging patterns will be synthesised and linked to existing IPT's to refine or refute these theories, or in the case of new emerging data areas, further generate programme theories. This analysis will use patterns of generative causation to support and justify theory refinement (72). These steps of theory refinement will be continuous throughout the research to evidence patterns of causation.

6 **Workstream 2: Testing the IPTs using mixed methods.**

Workstream 2 will use a mixed methods approach to address objectives 4 and 5 and is divided into 2a quantitative methods and 2b qualitative methods. Ethical approval has been sought for workstream 2b. Workstream 2a does not yet have ethical approval, this will be obtained following completion of workstream 1.

6.1 **Workstream 2a: summary**

Longitudinal Observational Study including an Interrupted Time Series data collection of NHS, policing and where possible voluntary sector routine data related to first response interventions before and after implementation of RCRP in four study sites in England.

6.2 **Workstream 2b: outputs**

- Refined and consolidated programme theories.
- Commissioning and policy guidance documents, lay summaries and a dissemination video. Academic papers and reports.

6.3 **Workstream 2b: Interviews and focus groups**

6.3.1 Recruitment and sampling

Sampling strategies for realist-informed interviews are driven by the aim of building theory based on variations in experiences and outcomes to better understand how first responder crisis services work

across a spectrum of contexts. To ensure maximum variability we will include representation from the contexts and mechanisms that have been hypothesised to impact on outcomes from IPTs developed in Workstream 1 using a sampling matrix. Participants in workstream 1 will have consented for involvement in workstream 2b interviews, focus groups and workshops. Eligibility and exclusion criteria are as stated in section 5.3.1.

Recruitment will be conducted at each NHS study site with support of the study site principal investigator, local NHS research teams who will continue to support engagement with identified PIC sites identified in workstream 1. Additional PIC sites may be identified and agreements set up as required to reach a diverse sample of staff and people with lived experience.

The aim is to recruit a total cross-site maximum sample of $n=160$ (minimum cross-site sample of $n=100$) Of these, $n=15$ service users and $n=5$ carers from each study site: total maximum lived experience sample of $n=80$ and $n=20$ staff at each study site: total maximum staff sample $n=80$.

Purposive recruitment of staff will be conducted using the same processes and eligibility criteria as outlined in workstream 1. Recruitment will focus on staff at the front line of delivering first response crisis interventions (as well as service leaders) from policing, ambulance, NHS mental health trusts, acute hospital trusts, the voluntary sector and commissioning organisations. Purposive recruitment of people with lived experience and their family/carers will be identified via screening of NHS patient electronic records, NHS registries at the NHS sites or via NHS and voluntary sector PIC agreements.

Recruitment will continue to purposively seek inclusion of people from diverse socio-economic, ethnic and cultural backgrounds supported by study site Principal investigators and PIC site agreements. Information for participants will be made available in the most common languages on each study site and interpreters and study site researchers with local knowledge will support diverse participation. As outlined in workstream 1, a poster will be used in hard copy and electronically in NHS study sites and PIC sites.

6.3.2 Workshops

Membership will include those with lived experience and staff from different stakeholder agencies. Membership will be informed by programme theory as well as ensuring the inclusion of people from diverse backgrounds. This will include previous and new stakeholder participants.

Participants may have previously consented to be contacted for participation in workshops. Additional participants will be purposively recruited from staff and lived experience populations as outlined for Workstream 2b interviews and focus groups.

One cross-site theory consolidation workshop will recruit equally from each study site and aim for a maximum sample $n=40$ and will meet face-to-face at a geographically accessible location.

A further site-specific knowledge mobilisation workshop will be convened in each study site with the same participants as far as possible $n=10$ in each site following data synthesis (total $n=40$). Additional participants will be recruited purposively (using the same approach outlined in section 6.2.1 Interviews and focus groups) should the consolidated programme theory suggest different expertise is required or there is sample attrition.

6.4 Workstream 2b: Data collection

6.4.1 Interviews and focus groups.

Topic guides have been developed based on IPTs from published evidence and submitted for ethical review. Topic guides will be refined following identification of IPTs in Workstream 1 with input from PPI consultations and steering group oversight. In realist research, topic guides typically change as the programme theory develops, any substantial changes to the topic guides will be submitted for further ethical review as required. A pragmatic approach will be taken as to whether an interview or focus group will be the most appropriate data collection method. The decision will be determined by the characteristics and location of the participants identified, their availability and the nature of the

topic from the IPTs to be explored. For example, where there are existing lived experience groups engaging with services (such as voluntary sector), it may be appropriate to conduct a focus group with them. Conversely, if a sensitive topic is being investigated, an interview may be more appropriate. Decisions will be made in partnership with the site teams who have local knowledge and involving PPI groups.

Interviews will last no longer than 60 minutes, and focus groups of no more than 90 minutes, to further support inclusivity, options for conducting these in person, phone or videocall, will depend on participant preference and practical considerations given the geographic spread of the study sites. Options for participating online to increase accessibility for people who live rurally, have families or are working for example and face-to-face will be provided to reduce the likelihood of digital exclusion. Interpreters will be available to facilitate where English is not the first language of participants. Time of the day when interviews and focus groups are conducted will also be considered due to practical and cultural reasons from the perspective of service user and carer participants. Audio recorded and transcribed data will be managed as described in 5.4.1.

6.4.2 Workshop delivery

One cross-site 'validation' interactive group workshop will be held to produce mid-range theories i.e., theory that lies between the minor but necessary working hypotheses (73) of the service models and co-design pathways, for adoption of recommendations. Participants will compare refined programme theories across sites to identify common mechanisms and to co-produce an outline for guidance on how different organisations within each service model can implement interagency mental health crisis first response pathways. The workshop will be delivered over half a day (including comfort breaks). Consent will be obtained to record the workshops and/or take field notes. Live artists will join the workshop to support creation of accessible summaries and dissemination materials.

This workshop will be followed by a site-specific workshop in each of four study sites to translate and mobilise knowledge within each study site context. Using co-design with ten participants in each workshop (total n=40). Co-design will focus on the development of guidance to support adoption through inclusion of practical steps and prompts to support the end users in designing, commissioning, and delivering service models within their specific study site context. Each study site workshop will last up to 3 hours (including comfort breaks) and will be undertaken in person at appropriate and accessible venues, hybrid or remotely (Microsoft Teams). Permission will be sought to record the group workshops and/or take field notes. Live artists will join the workshop to support creation of accessible summaries and dissemination materials. Live artist data and audio recorded and transcribed data will be managed as described in 5.4.1.

6.5 *Workstream 2b: Data analysis of interviews and focus groups.*

Data analysis will use patterns of generative causation to support and justify theory refinement (72) by coding data to identify outcome patterns, to explain why first responses within each site work or do not work. Data will be coded using NVivo which is a useful tool when managing large qualitative data sets and has successfully been applied in realist analyses (74). These steps of theory refinement will be continuous throughout the research to evidence patterns of causation.

Programme theories within each service delivery model will be taken forward to validate in the workshop, and subsequently inform Workstream 3 will be made collaboratively: (i) within meetings of full research management team and collaborators (who will draft initial selection criteria to select the programme theories with the greatest explanatory potential for informing the economic evaluation); and (ii) validating the selection criteria with the steering group.

6.6 *Workstream 2a and b: Data synthesis (triangulation)*

The process of triangulating findings from different methods/data sources will take place at the interpretation stage of the study after all data sets have been analysed separately. Triangulation of

routine data with interview and focus group data will be conducted to understand and explain findings, particularly where they are unexpected. Different data types will have different roles within the analysis (72). Consideration will be given to different data where there is agreement (convergence), where there is complimentary data on the same theory (complementarity) or appear to contradict each other (discrepancy or dissonance). In light of this analysis, theories will be refined and consolidated to take account of all data including to refute theories if they are not supported by the data. New theories may be developed with emerging data patterns not reflected in existing theory. A convergence coding matrix will display findings grouped by context, mechanism and outcome (CMO) at each stage of the study, followed by consideration of where there is agreement, partial agreement, silence or dissonance between findings (75).

7 Workstream 3: Cost Consequence Analysis (CCA)

Informed by routine data obtained during workstream 2a, a cost and consequence analysis (CCA) of pre and post RCRP 'within site' and 'comparative across site' analysis will be conducted and a budget impact analysis tool to aid decision making developed. As no new participants or data will be required in this workstream, no ethical approval is required.

7.1 Workstream 3: outputs

Cost and consequence analysis of pre and post RCRP 'within site' and 'comparative across site' analysis and budget impact analysis tool to aid decision making.

7.2 Workstream 3: cost consequence analysis methods

A cost consequence analysis will be conducted within each study site to estimate the impact on costs and consequences of implementing RCRP and we will compare the costs and consequences across study sites and the 'new' RCRP service models. A societal costing perspective and will be adopted to explore cross sectoral resource implications for providers of services and distributional health inequality impacts for service users.

Cost-consequence analysis (CCA) is a form of economic evaluation where disaggregated costs and a range of outcomes are presented to allow readers to form their own opinion on relevance and relative importance to their decision-making context (76). This is usually done using a descriptive table to present the effectiveness results (primary and secondary outcomes) in a disaggregated format, together with the estimates of the mean costs with appropriate measures of dispersion. CCAs have been recommended for complex interventions that have multiple effects and public health interventions which have an array of health and non-health benefits that are difficult to measure in a common unit. CCAs are not restricted to any viewpoint and so readers and decision makers can see the impact of their decisions on NHS patient costs or on other sectors such as criminal justice (77). Similarly, outcomes are not restricted to health outcomes and may include those relevant to other agencies and stakeholders.

Estimates of value for money of alternative models of service provision for interagency mental health crisis first response. Using ITS as part of the analysis provides an estimate of impact of change in service configuration on selected outcomes. These estimates will then be utilised to populate cost and consequence estimates. For example, if the number of hospital admissions changes, the size of this will be included in cost implications and consequences for a change in service configuration. The impact of the new service delivery models on interagency resource use, costs, and outcomes for groups of individuals using these services will be estimated and presented in a tabular format. When conducting the comparative cost consequence analysis across service configurations, this will be adjusted for socio-demographic factors in any regression models utilised. In general, the cost-consequence approach, by making the impact of the new service models as comprehensive and transparent as possible, will enable decision-makers and agencies to select the components most relevant to their perspective and will also give them confidence that the data are credible to use as the basis for resource allocation decisions.

7.3 Workstream 3: sampling and data collection

Data used in workstream 3 will be the routine data collected in workstream 2a (*which does not currently have ethical approval*). These data will be at individual service user level and will be obtained from the relevant NHS Mental Health Foundation Trusts, Police Constabularies, Ambulance Trusts, and any other relevant agencies involved in the service provision models identified in Workstream 1. The evaluation will collect data in workstream 2b on and assess: 1) Changes in costs and consequences pre and post implementation of RCRP and 2) Average and incremental costs and consequences across the new service models. Ethical approval for these activities will be obtained following completion of workstream 1.

7.4 Workstream 3: data analysis

The provision of the various service models will be micro-costed. Micro-costing is a cost estimation methodology employing detailed resource utilization and unit cost data to generate precise estimates of economic costs. Furthermore, the analysis regarding the cost implications of the services will employ interagency resource utilization data. This will include details of the responding agency, duration of response, outcome measures, onward referrals, demographic characteristics, and impact questions (e.g., hospital length of stay, emergency admissions, call times) collected in Workstream 2 (no ethical approval in place for this at present). Based on the CCA, a budget impact assessment tool will be developed that can be used by interagency decision makers to estimate the financial consequences of the models of service provision. Estimates of cost and consequences will be based upon regression analysis. Predictors of these that are dependent on local contexts will be included in the Budget Impact Analysis (BIA) tool such that local commissioners will be able to parameterise the tool with local data regarding prevalence and demographic information. Examples of localised information include the population sample size using prevalence, incidence or activity data. Results from the CCA will also be used to parameterise the BIA tool using disaggregated costs and cost savings. International Society for Pharmacoeconomics and Outcomes Research (ISPOR) guidance regarding BIA tools will be adhered to (78). This will be presented in excel format so that local decision makers can parameterise the tool and estimate accordingly.

8 Equality, diversity, and inclusion (EDI)

The study methods have been designed to maximise involvement and inclusion of underrepresented and marginalised people (67). Each workstream includes methods to monitor the diversity of those we involve as participants but also as study partners through PPI activities. People with adversity, those with underrepresented voices, and people from minority ethnic backgrounds are more likely to encounter the police when in crisis. The study team are supported by a survivor led crisis service, a local group working with members of the black community in South London (BREAD) and local faith and community leaders in the sites who are engaged in reaching out to such underserved groups. With innovative engagement approaches we aim to ensure that the hardest to reach voices have an opportunity to be involved in shaping policy that can work for them and their communities. A study team co-applicant has a strong track record not only working and researching the police and health interface but has also worked to ensure inclusion within research projects. The EDI approach emphasises two key characteristics linked with poorer outcomes in crisis mental health and contact with police; these are socio-economic disadvantage and culture/ethnicity. Study sites have been selected to optimise participation from these and other diverse populations.

9 Dissemination, outputs, and anticipated impact

9.1 What will be produced from the research?

Following workstream one, an initial map of services and a summary of initial programme theories will be produced as interim findings. Interim findings will be shared with a wide range of audiences,

especially reaching out to those most likely to effect change impacting on crisis care outcomes. Dissemination plans provide a summary of inclusive approaches to dissemination beyond lay summaries including the use of; short briefs and personal blogs, images from workshops and accessible summaries in key languages spoken in the study sites, local presentations in each study site as well as academic papers and conferences. These will be made available in languages commonly used in England and in audio/visual formats to improve accessibility with the support of a live artist. These outputs and their dissemination, informed by our knowledge mobilisation plan that will be co-produced with our PPI and steering groups at the start of the study, will form the building block of the key outcome of this study. A final study report will include guidance for policy makers and police, health and local authority commissioners, underpinned by consolidated programme theory, outlining the interagency first response service models most likely to produce optimal outcomes and be cost effective. This will include data from the cost-consequence analysis and a budget impact tool. In addition, the guidance will include co-created information about how to adopt service models within organisations, tailored to specific partnerships and context generated from the workshops. Plain English summaries for participants involved will be developed with the support of the PPI group. An evaluation of PPI involvement will be supported by the peer researchers.

9.2 How will you inform and engage service users, carers, NHS, social care organisations and wider population about your work?

PPI members have been involved in developing the protocol through PPI meetings and a PPI co-applicant contributing to protocol development meetings. PPI members will be engaged in each study site and involved as part of each workstream; they will meet both locally at each study site and together across sites. A PPI member from each site will be invited to join the SSG. The role of PPI members will be to sense check emerging findings, support development and testing of programme theory as well as advise on design, delivery and dissemination. Their representation will ensure that lay feedback, ideas, and issues are captured and considered. The workshops in workstream 2 will provide further opportunities for people with lived experience to shape the recommendations of the research and their dissemination.

NIHR Equality, Diversity, and Inclusion (EDI) principles will be applied to make public involvement opportunities accessible to a broad range of people, including those traditionally underserved, such as people with disabilities and from ethnic communities. The three peer researchers, one of whom is a study co-applicant also play a key role in mobilising emerging findings with their organisations/site by acting as local champions. The PPI members and peer researchers will develop accessible updates on the progress of the study at key point during the study for study sites and participants. They will also play a key role is developing accessible outputs as part of the guidance documents and dissemination activity.

9.3 How will the outputs enter the health and care system and society more widely?

Engagement with four study sites each including a range of stakeholder agencies, professionals and lived experience partners provides an essential route to dissemination and support for ongoing mobilisation, and implementation of the research findings. A key output from this study is guidance for health, policing, voluntary sector and local authority commissioning. As well as including overall findings and recommendations, this will include sections focused on the specific contexts identified in each study site and a focus on different agencies where this is appropriate. Guidance for policy makers will be included where this can inform implementation at a national level. Connections have been established with policy makers at regional and national level, including overarching bodies e.g. the Royal College of Emergency Medicine (RCEM) or the Association of Ambulance Chief Executives (AACE). Findings will be shared with these bodies through policy briefs, linked to personal blogs and live artist generated images from workshops to maximise their impact and, where possible, present our findings face-to-face to representatives of these organisations. The PPI members and peer

researchers will support development of guidance that is accessible including live artist generated images from the workshops and accessible summaries in key languages used in the study sites and have advised that Homeless charities are included in the dissemination plan.

Dissemination will include local presentations in each study site (including the ICB), national presentations to the NHS, Police Commissioners and international conference papers. Where appropriate, we will share findings with professional bodies such as the Colleges of Policing and Paramedics, and the Royal Colleges of Psychiatrists and Nursing.

Papers will also be prepared for academic journals and findings will be presented at academic and professional conferences in partnership with peer researchers and PPI members. Anonymised interview, survey and workshop data from all workstreams will be made available through Northumbria University's data repository.

At their request, we will be sharing regular updates with the Department of Health and Social Care by in person meetings and email updates. We plan to share findings on social media channels hosted by our partners where appropriate, and via CNTW and Northumbria University's press office. We are also setting up a webpage hosted by CNTW NHS Foundation Trust where we will post regular updates on the study.

9.4 What further support will be required if this research is successful (from NIHR, other government departments, charity or industry)?

Links to policymakers within the Department of Health and Social Care and Home Office will be vital to ensure that the findings are disseminated at the highest governmental levels, as well as links to select committees. NIHR could assist in bringing the findings to the attention of policy makers and national commissioning bodies. NIHR evidence sharing through press releases and publicity to advertise the findings would support dissemination and adoption. Support to link findings with professional bodies and the NHS and where relevant the devolved governments in Scotland, Wales, and Northern Ireland.

9.5 What will be the impact of the research and for whom?

As part of the knowledge mobilisation plan co-produced at the start of the study with PPI and steering group, a full impact plan will be developed to detail how outputs and knowledge mobilisation activities will be used to create impact by encouraging uptake of findings and recommendations/ guidance in policy and practice. It is clear from the letters of support from nine partner organisations that there is a real appetite to understand the important outcomes for people in mental health crisis, and the impact of changes to police support to health services. This study will contribute to the understanding of police encounters with people experiencing mental health problems and distress, how these encounters work, how effective they are for people in crisis, and ultimately their cost effectiveness and sustainability. The study will provide police, NHS Trusts, Ambulance Services, and voluntary sector partners with clear and up to date evidence-informed guidance on how to implement interagency mental health crisis first response pathways and how best to implement these pathways in different contexts, in response to recent policy and legal changes. The study will demonstrate whether and how these changes impact on people from disadvantaged backgrounds (socio-economic, cultural, or based on ethnicity) and what police collaboration with NHS staff and voluntary sector partners can do to optimise outcomes for people seeking a crisis first response for their mental health.

9.6 How will you share with study participants the progress and findings of your research?

Continuous engagement with stakeholders throughout the research process will ensure that emerging findings and research outputs will be fed back to study participants in a timely manner and accessible format. Short briefs and personal blogs will be used to inform public members, police and health staff about study progress and interim findings. PPI members and peer researchers will support

development of guidance at the end of the project that is accessible, including images from the workshops and accessible summaries of key findings in key languages used in the study sites. This guidance will be shared with all study participants. Dissemination will also include local presentations in each study site for stakeholders and study participants. Papers will be written for academic journals, and the findings will be presented at local, national and international academic and professional conferences in partnership with peer researchers and PPI members.

10 Project management

Overall responsibility for delivery of the study will rest with the Chief Investigator. They will lead across workstreams, provide clinical perspectives, and provide expertise in working between health and police services. They will also provide ongoing collaboration and support across all study sites and the study co-applicants. The project co-lead will provide realist methodological oversight across the project and support the PPI lead. The CI and co-lead will provide support to early career researchers. The local study site teams will provide leadership at the study sites to ensure engagement with relevant agencies and individuals to meet the study aims. Study co-applicants provide oversight and expertise in ambulance/paramedic, EDI, mixed methods synthesis, policing policy and knowledge mobilisation. The steering group will provide scrutiny and oversight.

11 Ethics

NHS Integrated Research Application System (IRAS) and Health Research Authority (HRA) approval has been sought. Ethical approval has been sought for workstreams 1 and 2b; both qualitative elements of the study. Ethical approval for workstream 2a, quantitative element of the study, will be sought following completion of workstream 1. This is due to the overarching realist study design where the findings from workstream 1 will inform the conduct of workstreams 2a.

The study team, including peer researchers, will attend Good Clinical Practice training. The material content of the study may be distressing for study participants, PPI members and the research team necessitating a distress protocol. The distress protocol will be developed in partnerships between the research team, PPI members, peer researchers and the study sites. Training will be provided to ensure the teams understand how to use the distress protocol. Debriefing and support will also be provided by the study team if required. The researcher will follow-up with distressed participants by phone within 24 hours and provide information about sources of support. All data collection (interviews, focus groups and workshops) will include a verbal debrief at the end where signposting to support can be given. If any information shared raises concerns for participants safety or the safety of others, or there are any criminal disclosures. The research team will share the information with relevant services or with the authorities using standard procedures for ethical reporting.

Audio and video recordings used in Workstreams 1 and 2b will be recorded using encrypted, password protected portable voice recorders, or using Microsoft Teams. Recordings will be transferred via a secure portal to an external transcribing company, with an appropriate confidentiality agreement between the company and the NHS Sponsor. Any transfer of data will take place via a secure web portal, and once completed transcripts have been received, the recordings saved in NHS computers will be deleted. Whilst it is not intended that identifiable data will be included on these recordings, it is possible that some information may be disclosed by participants, this will be redacted from transcripts, each transcript assigned a code (pseudonymised) before transfer to password protected computers at Northumbria University for analysis.

All data will be treated in accordance with the Data Protection Act and GDPR 2018. Information about how personal and research data will be obtained, stored and transferred will be provided for potential participants in a participant information sheet (PIS) and form part of the consent form. These data will be transferred using industry standard encryption methods and securely stored on password protected networks. Participants will be identified by NHS staff or non-NHS staff in PIC sites who have access to staff and patient records in their usual duties and approached by NHS staff working within the NHS study sites. With their consent, their name and contact details will be shared with study

researchers via secure email. Participants will be given a minimum of 24 hours prior to each data collection event to consider whether or not to take part.

12 References

1. CLIFFORD K. The thin blue line of mental health in Australia. *Police Practice and Research*. 2010; 11:355-70.
2. COLEMAN TG, COTTON DH. Reducing Risk and Improving Outcomes of Police Interactions with People with Mental Illness. *Journal of Police Crisis Negotiations*. 2010; 10:39-57.
3. LAMB H, WEINBERGER L, GROSS B. Mentally Ill Persons in the Criminal Justice System: Some Perspectives. *Psychiatric Quarterly*. 2004; 75:107-26.
4. WELLS W, SCHAFER J. Officer perceptions of police responses to persons with a mental illness. *Policing: An International Journal of Police Strategies & Management*. 2006; 29:578-601.
5. MCKINNON I, SRIVASTAVA S, KALER G, GRUBIN D. Screening for psychiatric morbidity in police custody: results from the HELP-PC project. *The Psychiatrist*. 2013; 37:389-94.
6. Lord Keith BRADLEY. The Bradley Report. London: Department of Health; 2009.
7. Lord Victor ADEBOWALE. Independent Commission on Mental Health and Policing. London: House of Lords; 2013.
8. Department of Health and Concordat signatories. Mental Health Crisis Care Concordat -Improving outcomes for people experiencing mental health crisis. London, England: HM Government; 2014. p. 1-54.
9. Department of Health, Home Office. Guidance for the implementation of changes to police powers and places of safety provisions in the mental health act 1983. London: The Department of Health and Home Office; 2017.
10. DHSC, Home Office. National Partnership Agreement: Right Care, Right Person (RCRP) London: Home Office, Department of Health and Social Care, NPCC, NHS England, Association of Police and Crime Commissioners, College of Policing; 2023 Available from: <https://www.gov.uk/government/publications/national-partnership-agreement-right-care-rightperson/national-partnership-agreement-right-care-right-person-rcrp>
11. NHS England (NHSE). NHS mental health crisis helplines receive three million calls 8 July 2021 nhs.uk: NHS England; 2021 [Available from: <https://www.england.nhs.uk/2021/07/nhs-mentalhealth-crisis-helplines-receive-three-million-calls/>].
12. Newbigging K, Rees J, Ince R, Mohan J, Joseph D, Ashman M, et al. The contribution of the voluntary sector to mental health crisis care: a mixed-methods study. *Health Services and Delivery Research*. 2020; 8:29.
13. Tobitt S, Kamboj S. Crisis resolution/home treatment team workers' understandings of the concept of crisis. *Social Psychiatry and Psychiatric Epidemiology*. 2011;46(8):671-83.
14. Clibbens N, Baker J, Booth A, Berzins K, Ashman MC, Sharda L, et al. Explanation of context, mechanisms and outcomes in adult community mental health crisis care: the MH-CREST realist evidence synthesis. *Health Soc Care Deliv Res* 2023;11(15).
15. Ball JS, Links PS, Strike C, Boydell KM. "It's overwhelming... everything seems to be too much:" A theory of crisis for individuals with severe persistent mental illness. *Psychiatr Rehabil J*. 2005;29(1):10-7.
16. Caplan G. Recent developments in crisis intervention and the promotion of support service. *J Prim Prev*. 1989;10(1):3-25.
17. Stangl AL, Earnshaw VA, Logie CH, van Brakel W, Sambayi LC, Barre I, et al. The health stigma and discrimination framework: a global, crosscutting framework to inform research, intervention development, and policy on health-related stigmas. *BMC Medicine*. 2019;17(31).
18. Mirabito DM. Social Work Theory and Practice for Crisis, Disaster, and Trauma. 2017. In: *Social Work Treatment, Interlocking Theoretical Approaches* [Internet]. New York: Oxford University Press. 6. [195-213].
19. O'Cathain A, Connell J, Long J, Coster J. 'Clinically unnecessary' use of emergency and urgent care: A realist review of patients' decision making. *Health Expect*. 2020;23(1):19-40.
20. Dalton-Locke C, Johnson S, Harju-Seppänen J, Lyons N, Rains LS, Stuart R, et al. Emerging models and trends in mental health crisis care in England: a national investigation of crisis care systems. medRxiv. 2021:2021.07.08.21259617.
21. Winters S, Magalhaes L, Kinsella E. Interprofessional collaboration in mental health crisis response systems: a scoping review. *Disability and rehabilitation*. 2015;37(23):2212-24.
22. Amaral CE, Onocko-Campos R, de Oliveira PRSea. Systematic review of pathways to mental health care in Brazil: narrative synthesis of quantitative and qualitative studies. *Journal of Mental Health Systems* 2018;12(65).
23. Government U. Independent Review of the Mental Health Act. London: Department of Health; 2018.
24. Appleby L, Hunt IM, Kapur N. New policy and evidence on suicide prevention. *The Lancet Psychiatry*. 2017;4(9):658-60.

25. Bögler S, Boden Z. 'It was like a lightning bolt hitting my world': Feeling shattered in a first crisis in psychosis. *Qualitative Research in Psychology*. 2019.
26. MORABITO M, KERR A, WATSON A, DRAINE J, OTTATI V, ANGELL B. Crisis Intervention Teams and People With Mental Illness: Exploring the Factors That Influence the Use of Force. *Crime & Delinquency*. 2012;58:57-77.
27. United Kingdom Parliament. *Mental Health Act (1983)*.
28. Durcan G. Review of Sections 135 and 136. London: Centre for Mental Health; 2014.
29. BALFOUR ME, DELANY-BRUMSEY AW, GOLDMAN ML. Cops, Clinicians, or Both? Collaborative Approaches to Responding to Behavioral Health Emergencies. *Psychiatric Services*. 2021;73:658-69.
30. Stop and Search Statistics [Internet]. UK GOVERNMENT. 2023 [cited 11 December 2023]. Available from: <https://www.ethnicity-facts-figures.service.gov.uk/crime-justice-and-the-law/policing/stop-and-search/latest/#by-ethnicity>.
31. COLLEGE OF POLICING. *Police Race Action Plan: College of Policing*; 2022.
32. Mind. *Mental health crisis care: commissioning excellence for Black and minority ethnic groups: A briefing for Clinical Commissioning Groups*. London, UK: Mind; 2013.
33. Gibson S, Hamilton S, James K. *Evaluation of the Crisis Care Concordat implementation: Final Report London, England: McPin Foundation for Mind*; 2016.
34. ENGLAND N. *NHS Long Term Plan*. London: National Health Service; 2023.
35. LAMB HR, SHANER R, ELLIOT DM, DEQUIR W, FOLTZ J. Outcome for psychiatric emergency patients seen by an outreach police-mental health team. *Psychiatric Services*. 1995;46:1267-71.
36. Reveruzzi B, Pilling S. *Street Triage. Report on the evaluation of nine pilot schemes in England*. England: University College London; 2016.
37. DYER W, STEER M, BIDDLE P. *Mental Health Street Triage. Policing-a Journal of Policy and Practice*. 2015;9:377-87.
38. THE HOME OFFICE. *Police powers and procedures: Other PACE powers, England and Wales, year ending 31 March 2023* London: UK Government; 2024 [Available from: <https://www.gov.uk/government/statistics/other-pace-powers-year-ending-march-2023/policepowers-and-procedures-other-pace-powers-england-and-wales-year-ending-31-march-2023>].
39. Puntis S, Perfect D, Kirubarajan A, Bolton S, Davies F, Hayes A, et al. A systematic review of co-responder models of police mental health 'street' triage. *BMC Psychiatry*. 2018;18:256.
40. JENKINS O, DYE S, OBENG-ASARE F, NGUYEN N, WRIGHT N. Police liaison and section 136: comparison of two different approaches. *British Journal of Psychiatry Bulletin*. 2017;41:76-82.
41. KEOWN P, FRENCH J, GIBSON G, NEWTON E, CULL S, BROWN P, et al. Too much detention? Street Triage and detentions under Section 136 Mental Health Act in the North-East of England: a descriptive study of the effects of a Street Triage intervention. *BMJ Open*. 2016;6.
42. BROOME L, DAVIES J, LEWIS M. Service evaluation of the South Wales police control room mental health triage model: outcomes achieved, lessons learned and next steps. *Journal of Forensic Practice*. 2022;24:95-110.
43. HESLIN M, CALLAGHAN L, PACKWOOD M, BADU V, BYFORD S. Decision analytic model exploring the cost and cost-offset implications of street triage. *BMJ Open*. 2016;6.
44. Rodgers M, Thomas EWS, Dalton JE, Harden M, Eastwood AJ. *Police-related triage interventions for mental health-related incidents : a rapid evidence synthesis*. Health Services and Delivery Research. 2019.
45. CALLENDER M, KNIGHT LJ, MOLONEY D, LUGLI V. Mental health street triage: Comparing experiences of delivery across three sites. *Journal of Psychiatric and Mental Health Nursing*. 2021;28:16-27.
46. Carson C. *Telephone Street Triage: A Service Users Perspective*: Salford University; 2018.
47. Hollander Y, Lee SJ, Tahtalian S, Young D, Kulkarni J. Challenges Relating to the Interface Between Crisis Mental Health Clinicians and Police When Engaging with People with a Mental Illness. *Psychiatry, Psychology and Law*. 2012;19(3):402-11.
48. Evans R, Connell J, Ablard S, Rimmer M, O'Keeffe C, Mason S. The impact of different liaison psychiatry models on the emergency department: A systematic review of the international evidence. *J Psychosom Res*. 2019;119:53-64.
49. House A, Guthrie E, Walker A, Hewson J, Trigwell P, Brennan C, et al. A programme theory for liaison mental health services in England. *BMC Health Services Research*. 2018;18(1):742.
50. CAMPBELL D. England's ambulance crews spend 1.8m hours a year on mental health callouts. *The Guardian*. 2023.
51. GREGORY A. Patients turning to A&E as wait times for NHS mental health treatment spiral. *The Guardian*. 2022.

52. Newbigging K, Mohan J, Rees J, Harlock J, Davis A. Contribution of the voluntary sector to mental health crisis care in England: protocol for a multimethod study. *BMJ Open*. 2017;7(11):e019238-e.
53. SERVICES HMSIOPFAR. Policing and Mental Health: Picking Up the Pieces. London: HMICFRS; 2018.
54. SYAL R. Police in England and Wales dealing with more mental health crises than ever. *The Guardian*. 2023 21 February 2023.
55. Marshall L, Bibby J, Abbs I. Emerging evidence in COVID-19's impact on mental health and health inequalities. London: The Health Foundation; 2020.
56. Abbas MJ, Kronenberg G, McBride M, Chari D, Alam F, Mukaetova-Ladinska E, et al. The early impact of the COVID-19 pandemic on acute care mental health services. *Psychiatric Services*. 2021;72(3):242-6.
57. Redgate S, Clibbens N, Haighton C, Dalkin S, Bate A, Girling M, McCarthy S, Eagles T, Gray J, McKinnon I. Mechanisms to support interventions involving the police when responding to persons experiencing a mental health crisis: a realist review, *Health and Social Care in the Community*. 2025; <https://doi.org/10.1155/hsc/7445445>
58. Skivington K, Matthews L, Simpson SA, Craig P, Baird J, Blazeby JM, et al. A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance. *BMJ*. 2021;374:n2061.
59. Redgate S, Dyer W, Smith MA. Using a realist approach in understanding youth offending service delivery requirements for young people who offend with speech, language and communication needs in England. *Discov Soc Sci Health* 2022;2(21).
60. Pawson R, Tilley N. An introduction to scientific realist evaluation. In: Chelimsky E, Shadish WR, editors. *Evaluation for the 21st century: A handbook* London: Sage; 1997. p. 405-18.
61. Dalkin S, Greenhalgh J, Jones D, Cunningham B, Lhussier M. What's in a mechanism? Development of a key concept in realist evaluation. *Implementation Science*. 2015;10(1):49.
62. Wong G, Westhorp G, Manzano A, Greenhalgh J, Jagosh J, Greenhalgh T. RAMESES II reporting standards for realist evaluations. *BMC Medicine*. 2016;14(96).
63. Husereau D, Drummond M, Augustovski F, de-Bekker-Grob E, Briggs A H, Carswell C, et al. Consolidated Health Economic Evaluation Reporting Standards 2022 (CHEERS 2022) Statement: Updated Reporting Guidance for Health Economic Evaluations. *Value in Health*. 2022;25(1):3-9.
64. Staniszevska S, Brett J, Simera I, Seers K, Mockford C, Goodlad S, et al. GRIPP2 reporting checklists: tools to improve reporting of patient and public involvement in research. *BMJ*. 2017;358:j3453.
65. Langley J, Wolstenholme D, Cooke J. 'Collective making' as knowledge mobilisation: the contribution of participatory design in the co-creation of knowledge in healthcare. *BMC Health Services Research*. 2018;18(1).
66. School for Public Health Research. The 6 SPHR Knowledge Sharing Principles. National Institute for Health Research; 2018.
67. Research NifHaC. Equality, Diversity and Inclusion Strategy 2022-2027: National Institute for Health and Care Research; 2023 [Available from: <https://www.nihr.ac.uk/documents/equalitydiversity-and-inclusion-strategy-2022-2027/31295>].
68. Wong G, Westhorp G, Pawson R, Greenhalgh T. Rameses Training Material 2013 [Available from: http://www.ramesesproject.org/media/Realist_reviews_training_materials.pdf]
69. Leighton K, Kardong-Edgren S, Schneidereith T, Foisy-Doll C. Using social media and snowball sampling as an alternative recruitment strategy for research. *Clinical Simulation in Nursing*. 2021;55:37-42.
70. Manzano A. The craft of interviewing in realist evaluation. *Evaluation*. 2016;22(3):342-60.
71. Wong G, Westhorp G, Greenhalgh J, Manzano A, Jagosh J, Greenhalgh T. Quality and reporting standards, resources, training materials and information for realist evaluation: the RAMESES II project. *Health Services Delivery Research*. 2017;5(28).
72. Gilmore B, McAuliffe E, Power J, Vallières F. Data Analysis and Synthesis Within a Realist Evaluation: Toward More Transparent Methodological Approaches. *International Journal of Qualitative Methods*. 2019;18.
73. Merton RK. *Social theory and structure*. New York, NY: Free Press; 1968.
74. Sonia Dalkin, Natalie Forster, Philip Hodgson, Lhussier M, Carr SM. Using computer assisted qualitative data analysis software (CAQDAS; NVivo) to assist in the complex process of realist theory generation, refinement and testing. *International Journal of Social Research Methodology*. 2021;24(1):123-34.
75. O'Cathain A, Murphy A, Nicholl J. Three techniques for integrating data in mixed method studies. *BMJ*. 2010;341.
76. Mauskopf JA, Paul JE, Grant DM, Stergachis A. The Role of Cost—Consequence Analysis in Healthcare Decision—Making. *Pharmacoeconomics* 1998;13:277-88.

77. Brazier J, Ratcliffe J, Salomon J, Tsuchiya A. Measuring and Valuing Health Benefits for Economic Evaluation. Second ed. Oxford: Oxford University Press; 2016.
78. Sullivan SD, Mauskopf JA, Augustovski F, Caro J, Lee KM, Minchin M, et al. Budget Impact Analysis- principles of good practice: Report of the ISPOR 2012 Budget Impact Analysis Good Practice II Task Force. Value in Health. 2014;17(1):5-14.