

Full Title: Building Evidence Around COmmunity and Neighbourhood Health: A National Evaluation (BEACON)

Short Title: BEACON

Principal Investigator/s: Prof Angela Bate and Prof Jason Scott,

Co-Investigators: Prof Sonia Dalkin, Prof Tracy Finch, Prof Darren Flynn, Prof Joanne Gray, Prof Katie Houghton, Vivienne Hibberd (PPIE), Dr Will McGovern, Prof Peter McMeekin, Dr Eduwin Pakpahan, Dr Sebastian Potthoff, Prof Tom Sanders, Dr Katie Shearn, Prof Peter Van der Graaf.

Researcher Team: Dr Rebecca Hunter, Dr Anando Sen, Dr Jo Wildman, Dr Julie Williams.

Project Manager: Leanne Anderson-Clements

Funder: National Institute for Health and Care Research (NIHR HSDR)

Sponsor: Northumbria University at Newcastle

List of Abbreviations

10YHP	NHS 10 Year Health Plan for England
AI	Artificial intelligence
CAG	Confidentiality Advisory Group
CPRD	Clinical Practice Research Datalink
DAG	Directed Acyclic Graph
DARS	Data Access Request Service
EDI	Equality, Diversity, and Inclusion
GDPR	General Data Protection Regulation
HRA	Health Research Authority
I-STEM	Implementation Stakeholder Engagement Model
ICA	Inductive Content Analysis
ICB	Integrated Care Board
ICS	Integrated Care System
IHO	Integrated Health Organisation
IDEAS-NET	Interdisciplinary evaluation of complex innovations in health and social care (IDEAS) National Evaluation Team
IEKM	Inclusion, Engagement and Knowledge Mobilisation
INT	Integrated Neighbourhood Team
IPT	Initial Programme Theory
LA	Local Authority
MeSH	Medical Subject Heading
MTPF	Medium Term Planning Framework
MRC	Medical Research Council
NAG	IDEAS-NET National Advisory Group
NbH	Neighbourhood Health
NIHR	National Institute for Health and Care Research
NHC	Neighbourhood Health Centre
NHS	National Health Service
NNHIP	National Neighbourhood Health Implementation Programme
OHID	Office for Health Inequalities and Disparities
ONS	Office for National Statistics
PCN	Primary Care Network
PPIE	Patient and Public Involvement and Engagement
PPIES	IDEAS-NET Public and Patient Involvement and Engagement Strategy group
PRISMA-ScR	Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews
REC	Research Ethics Committee
ToC	Theory of Change
UK	United Kingdom
VCSE	Voluntary, Community and Social Enterprise

Scientific Summary

Background

Establishing a 'neighbourhood health service' (NbH) is central to the NHS 10 Year Health Plan for England (10YHP), which lays the groundwork for more community-focused healthcare provision by moving care out of hospitals and into neighbourhoods, through integrated neighbourhood care models. Integrated care models are not new; however, what is new about NbH is the ambition to implement these models across England as part of a 'cultural change' in the way health and care services are delivered and used. However currently, NbH is poorly defined. As a complex policy intervention, NbH spans multiple sectors, including health and social care, voluntary and community organisations and wider public services. Additionally, models of NbH will be locally determined and, therefore, there will be wide variation in design and delivery. The IDEAS National Evaluation Team (IDEAS-NET) has been tasked by the Department of Health and Social Care (DHSC) with conducting a national evaluation of NbH. This evaluation has been informed by and builds on previous work that sought to explore and understand stakeholder perspectives of what NbH means to them; the activities and factors that might help or hinder its delivery; and implications for evaluation design¹.

Aim

To undertake a theory-led pragmatic evaluation of NbH that generates explanations of what works, for whom, in what circumstances, and why. This will be via a targeted examination of how NbH is designed, organised and delivered.

Methods

The evaluation will adopt a realist approach to evaluate how NbH works, for whom, in what circumstances, and why, conducted over a three-year period from April 2026. Realist evaluation is theory-driven and well suited to embrace and explain the inherent "messiness" of real-world programmes and evaluations in complex systems. By acknowledging the context (i.e. features of the conditions in which phenomena are introduced), realist evaluation helps to identify how specific contextual factors enable or constrain mechanisms. In the evaluation of NbH, understanding how NbH may operate across different settings, by examining how contextual features shape the activation of specific mechanisms is particularly important where multiple pathways from implementation to impact are possible. A concurrent mixed-methods comparative case study design will also be used to evaluate the design, organisation, and delivery of NbH as it is rolled out across England. The core evaluation activities include a national survey to develop a taxonomy of types of NbH (ways NbH is designed, organised and delivered); a scoping review and series of high level (~30) and deep-dive (~10) mixed-methods organisational case studies to develop and test programme theories of how NbH works, for whom, and in which circumstances; and dynamic system modelling to simulate long term outcomes and funding flows for different NbH types. Whilst we will attempt to incorporate cost considerations and implications for funding flows into the modelling, it is not possible to construct a full economic model to support an analysis of cost effectiveness of NbH.

The study aim will be met via five workstreams to meet the following objectives:

- 1) To identify and plan how we will involve and engage key stakeholders (including PPIE representatives) at all stages of the evaluation and share our findings with them throughout the evaluation (Workstream 1).
- 2) To construct a taxonomy of the different ways that NbH is designed, organised and delivered, including the historical, structural and relational contexts that underpin these different ways of working (Workstream 2).

- 3) To develop initial programme theories of how NbH may work, for whom, and in which circumstances, drawing on national and international evidence, formal theories, and stakeholder input (Workstream 3).
- 4) To identify data sources and measures for assessing range of medium- and long-term impacts of NbH for further modelling (Workstream 4).
- 5) To test and refine theories of how NbH works across different types of NbH in the taxonomy and across different geographies and demographics, recording how changes in local, regional and national policies can frame these findings (Workstream 4).
- 6) To simulate the refined theories to model the long-term outcomes and funding flows for different types of NbH in the taxonomy and identify plausible scenarios for testing in the ongoing evaluation and monitoring of NbH (Workstream 5).

Evaluation outputs

Outputs will include a taxonomy of types of NbH, refined programme theories and a refined theory of change of how NbH works, a user tool simulating the long-term outcomes and implications for funding flows for NbH, and implications for policy, practice and future evaluation. These will be disseminated through a range of outputs for different audiences including peer-reviewed publications, reports, and briefings. To maximise the value of this evaluation for policy makers, we will produce policy briefings at key time points during the evaluation (e.g., budgetary review periods, national and local government election periods, and the political conference season). Policy recommendations may be provided where applicable and appropriate.

Plain English Summary

The NHS 10 Year Health Plan involves ambitious plans to improve health and care services. One of the changes it introduces is a new way of delivering services that is called Neighbourhood Health (NbH). The plan is for NbH to improve access to services and care by better integrating care from the NHS, social care, and voluntary services with the aims of improving health outcomes and reducing health inequalities. The aim of the evaluation is to understand what it is about NbH that works, for whom, in what circumstances, and how. We will do this by developing theories of how we think NbH will work based on existing literature and talking to people involved in NbH. We will then test if these theories are supported by collecting data in case sites who are delivering NbH in different ways. These cases will be chosen to look at the different ways NbH is organised and delivered, as well as different places with different populations. We will collect both qualitative data (interviews, focus groups, workshops and observations) and quantitative data (administrative data like number of GP visits and hospital admissions) from cases. We will use these data to develop final theories on how NbH works and a model to simulate how NbH works in the long-term for use by people who make decisions about how care is organised and funded. At the beginning of the evaluation, we will co-design an inclusion, engagement and knowledge mobilisation plan with key stakeholders including patients, carers and the public. This plan will guide our involvement and engagement work throughout the evaluation and ensure that all stakeholders are involved in all aspects of the evaluation. The plan will also include how we should share our findings, including who we will share them with, when and how. We want to ensure that we share important findings throughout the evaluation.

Background and rationale

Establishing a 'neighbourhood health service' is central to the NHS 10 Year Health Plan for England (10YHP), which lays the groundwork for more community-focused healthcare provision by, wherever possible, moving care out of hospitals and into local neighbourhoods². The 10YHP model of Neighbourhood Health (NbH) combines several different ideas for, and approaches to, providing health and social care^{2,3}. A key difference from other efforts to shift care into the community is the emphasis on strengthened general practice and community services at the centre of NbH².

The vision for NbH sees general practitioners working in integrated neighbourhood teams (INTs) alongside staff from other health care services, social care and community health care. Proactive care, central to NbH, will anticipate and address health needs before they escalate, using population health management tools to identify at-risk individuals or communities. Identified needs will guide the use of existing services, the adaptation of current offerings, or the development of new services to address gaps and ensure equitable care across the neighbourhood. This approach seeks to incorporate primary prevention: reducing the risk of illness through health living initiatives and addressing the social determinants of health; secondary prevention: early detection and management of emergent health risks to prevent progression; and tertiary prevention: mitigating the impact of an ongoing illness or injury. The 10YHP is clear that adult social care will be part of NbH with, for example, care workers included in the NbH workforce. However, there is as yet little detail on the practicalities of how social care and the social care workforce will be integrated into NbH. The Independent Commission on Adult Social Care (the Casey Commission) is currently working on a plan for the delivery of a 'national care service'⁴. The Commission's initial plan for reforming adult social care will be published in 2026 when the implications for the role of social care within NbH should become clearer⁴.

A focus on reducing health inequalities, in line with the Core20PLUS5 approach⁵, will be integral to NbH, ensuring that interventions target the populations and clinical priorities where disparities are greatest. INTs are also expected to include staff from public services and the voluntary, community and social enterprise (VCSE) sector. The VCSE sector helps tackle social determinants of health such as poverty, housing insecurity, and social exclusion and mitigates their effects through practical support, community initiatives, and wellbeing programs. By combining medical care with social and community interventions, NbH aims to improve health

outcomes and reduce the impact of structural inequalities. The delivery of NbH is intended to be financed by shifting the patterns of spending on health, with a decrease in spending on hospital care matched by an increase in spending on out-of-hospital care³.

One of the most visible commitments in the 10YHP is to establish a Neighbourhood Health Centre (NHC) in every community, starting in places with the lowest healthy life expectancy (40-50 NHC are planned by 2028, with 250-300 NHC by 2035)^{2,6,7}. The NHC will provide a 'one-stop-shop' where INTs provide both NHS services, including some services currently delivered in hospitals, and wider support with social needs such as advice with debt, benefits or housing, 12 hours a day, six days a week. While neighbourhood hubs/polyclinics type centres already exist in many places, the ambition is to scale up this model of delivering health and social care.

The UK government's plans for increased devolution of powers and funding to strategic authorities has implications for the 10YHP⁸. Both the 10YHP and the English Devolution and Community Empowerment Bill (2025) set out new roles and powers for mayors in the commissioning of healthcare and responsibilities for population health and wellbeing. Strategic authority mayors will replace local authority representatives on ICBs, giving mayors direct influence over the provision of NHS services⁸. Further changes to the footprint of ICBs are suggested in the Bill, with ICBs encouraged to align their boundaries to those of strategic authorities. The Bill will also introduce a requirement on strategic authorities to develop neighbourhood-based approaches to decision making and governance.

While the 10YHP offers only minimal guidance on implementation, the recently published NHS England Medium Term Planning Framework (MTPF) 2026/27 to 2028/29 sets out the next steps for delivering NbH services^{9,10}. The MTPF explains that while many community-based services will continue to be delivered in the same way, services will be different for patients who use multiple services (those with complex care needs) and patients referred from one service to another. The MTPF instructs England's Integrated Care Boards (ICBs) and NHS providers to work with local authorities to start establishing INTs, ideally working within a formal contractual framework. Two new GP contracts are being introduced and rolled out from 2026. A single neighbourhood provider contract will map onto primary care network (PCN) population footprints (that appear to be an evolution or alternative to PCNs⁷) and deliver NbH services to populations of 30,000-50,000. Multi-neighbourhood provider contracts will provide services to populations of 250,000 or more, with the aim of unlocking benefits of scale. Multi-

neighbourhood provider contracts will be available to general practice groups (e.g. primary care provider collaboratives that have formed in some Integrated Care Systems (ICSs) or GP federations) or NHS trusts. There are plans to allow some NHS Foundation Trusts to form Integrated Health Organisations (IHOs) that hold budgets for a local population, the size of which is yet to be defined. Other changes to care will be through the provision of more digital services, including through the NHS App and hospital at home type services⁹.

Delivering care closer to home has been a long-held policy ambition and the concept of NbH is far from new¹¹⁻¹⁴. The six core components of NbH as set out in NHS England's NbH guidelines for 2025/26 (population health management; improving access to general practice; strengthening the role of community health services; using integrated multidisciplinary teams to support patients with complex needs; providing integrated intermediate care; and providing urgent community based services) have already been implemented in many areas, albeit to a greater or lesser extent². What is new is the ambition to implement all the core components in all areas of England as part of a 'cultural change' in the way health and care services are delivered and used². Despite this ambition, policy makers recognise that change will not necessarily occur quickly. Over the next three years, the focus will be on delivering more 'joined-up care' to high-priority cohorts (people with moderate to severe frailty, living in a care home, are housebound, or who are at the end of life) through INTs. In the short-term, the immediate focus for the health and care systems (including, ICBs, NHS providers, Local Authorities and the VCSE) will be on reducing unnecessary non-elective admissions, reducing 'unwarranted' variation in GP access, and enabling people who need planned care to receive this care closer to home⁹. Despite this focus, it is not yet clear what specific outcomes are of interest or how they will be measured. The MTPF notes that 'high-functioning systems will want to go further and faster' and should be establishing INTs and services for other cohorts such as children and young people, and for specific health and care diagnoses such as mental health, and learning disability, autism and attention deficit hyperactivity disorder⁷.

NHS leaders have stated that NbH should be developed in ways that are tight on aims, loose on the mechanisms to achieve those aims, and tight on measuring outcomes¹⁵. This 'tight-loose-tight' approach means that, while the goals and outcomes of NbH must conform to centrally determined priorities, models of NbH and the definition of a 'neighbourhood' should be locally determined in response to local needs and priorities¹⁵. Therefore, within and between ICSs there is likely to be wide variation in the design and delivery of NbH. These variations will reflect

structural and place-based differences - including population characteristics, geography, and available community assets - as well as relational aspects of context such as patterns of collaboration, trust, and communication between local organisations, healthcare professionals, and community groups. Together, these variations will therefore influence how NbH is designed, organised, delivered and experienced.

Rationale for the study

The IDEAS National Evaluation Team (IDEAS-NET; NIHR163969¹) have been tasked by the Department of Health and Social Care (DHSC) with conducting a national evaluation of NbH. IDEAS-NET is based at Northumbria University and comprises academic staff and collaborators with a diverse range of methodological and topic expertise. We co-design our evaluations to ensure a shared understanding with all stakeholders. This protocol was developed with input from 110 stakeholders who took part in a series of three co-design workshops held in September and October 2025 (NIHR177627¹). Workshop participants represented a range of backgrounds, including primary, secondary and tertiary care; community health services; VCSE; patients, carers and the public; and research and policy experts. The workshops sought to explore meanings of NbH; identify barriers and enablers and the activities and strategies (individual, organisational and system level) required to deliver NbH; determine plausible short- and long-term outcomes and measures outcomes; and consider criteria for case-study site selection. A draft version of this protocol was shared for comment and agreed with workshop participants, members of our Public and Patient Involvement and Engagement Strategy (PPIES) group, and our National Advisory Group (NAG) in separate online briefing and question and answer sessions.

As defined in the update to the Medical Research Council (MRC) guidance framework for the development and evaluation of complex interventions¹⁶, NbH represents a multi-sectoral complex intervention that is being implemented at scale across England and an example of a large-system transformation, defined by Best et al¹⁷ as an intervention that is “aimed at coordinated, systemwide change affecting multiple organizations and care providers, with the goal of significant improvements in the efficiency of health care delivery, the quality of patient care, and population-level patient outcomes” (p.422). Previous attempts to evaluate similar models of integrated care have shown evidence of positive results for patient satisfaction, perceived quality of care and improved access to care¹⁸. However, there is little evidence on the impact of integrated care models on process and outcomes, such as reductions in hospital

admissions or cost reductions^{13,18,19} and patient experience, including in community settings^{20,21}. Given that the outcomes of complex interventions such as models of integrated care are “patchy, unpredictable, and context dependent”¹³ (p. 5), it is unsurprising that evaluations report patchy, unpredictable and context-dependent findings.

Interventions introduced into complex adaptive systems rarely produce uniform outcomes, and their effects depend heavily on local conditions. NbH spans multiple sectors, including health and social care, voluntary and community organisations and wider public services. Its structural and relational component interact with local systems in non-linear ways, producing outcomes that vary across settings. The roll-out of NbH therefore requires a large-scale national evaluation that recognises that there will be wide variation in the design, organisation, and delivery of NbH, and considers how these variations reflect and are defined by structural and place-based differences as well as relational aspects of context, change over time, and how different mechanisms operate in varying contexts to produce outcomes and impacts, including on funding flows.

Aims, objectives and research questions

Study aim

To undertake a theory-led pragmatic evaluation of NbH that generates explanations of what works, for whom, in what circumstances, and how through a targeted examination of how NbH is designed, organised and delivered.

Study objectives

- 1) To identify and plan how we will involve and engage key stakeholders (including PPIE representatives) for all stages of the evaluation and share our findings with them throughout the evaluation (**Workstream 1**).
- 2) To construct a taxonomy of the different ways that NbH is designed, organised and delivered, including the historical, structural and relational contexts that underpin these different ways of working (**Workstream 2**).
- 3) To develop initial programme theories of how NbH may work, for whom, and in which circumstances, drawing on national and international evidence, formal theories, and stakeholder input (**Workstream 3**).
- 4) To identify data sources and measures for assessing range of medium- and long-term impacts of NbH for further modelling (**Workstream 4**).
- 5) To test and refine theories of how NbH works across different types of NbH in the taxonomy and across different geographies and demographics, recording how changes in local, regional and national policies can frame these findings (**Workstream 4**).
- 6) To simulate the refined theories to model the long-term outcomes and funding flows for different types of NbH in the taxonomy and identify plausible scenarios for testing in the ongoing evaluation and monitoring of NbH (**Workstream 5**).

Research questions

- 1) What are the different types of NbH and how are they designed, organised, and delivered?
- 2) What are our initial theories of how NbH may work?
- 3) What data are available for testing our theories of how NbH may work and what is quality of that data?
- 4) How do these theories explain how different types of NbH work (or not) in practice?
- 5) How do changes in local, regional and national policies influence the design, development or delivery of NbH over the course of the evaluation and impact on our findings?
- 6) What are the long-term outcomes and impacts, including funding flows, associated with different types of NbH and implications for the continued implementation of NbH?

Study design and theoretical framework

To address the aims and objectives, the study is structured around five workstreams: 1) inclusion, engagement and knowledge mobilisation; 2) taxonomy construction; 3) programme theory development; 4) programme theory testing and refinement; 5) simulation modelling. The connections between these workstreams are provided in Figure 1. A study timeline is provided below.

Realist evaluation, grounded in theory-driven enquiry²² and a realist philosophy of science, is adopted across all workstreams. Realist philosophy uses the notion of generative mechanisms activating in specific contexts to establish causal regularities, asking what works, for whom, in what circumstances and how²². Mechanisms are understood as the interaction between the resources an intervention provides and the reasoning or responses these resources elicit²³. By acknowledging the context (i.e. features of the conditions in which phenomena are introduced), realist evaluation helps to identify how specific contextual factors enable or constrain mechanisms. Understanding how NbH may operate across different settings by examining how contextual features shape the activation of specific mechanisms is particularly important where multiple pathways from implementation to impact are possible.

Realist evaluation is described as methods-neutral, with the choice of data collection driven by the theories that are informing the evaluation²⁴. The robustness of the theory testing process in realist evaluation is increased by using a broad range of data collection methods, with data required for contexts, mechanisms and outcomes and to test the relationships between them²⁵. For this reason, we will take a multi-method approach to data collection (as described more fully in each workstream). Methods of data analysis will be selected for their utility in theory testing. Realist evaluations are adaptive and iteratively refined over the course of the evaluation

to test programme theories as they evolve²⁵. To reflect this, the protocol will be updated throughout the evaluation to incorporate changes and add further detail. New protocol versions will be published describing and justifying these changes.

Evaluation setup: (1st Jan 2026 to 31st March 2026)

Evaluation setup will cover essential project activities prior to the evaluation starting on 1st April 2026. These activities include preparing and submitting relevant research ethics applications, development of an evaluation-specific PPIE plan, and creating an initial inclusion, engagement and knowledge mobilisation (EIKM) plan.

Research ethics

An ethics application covering research activities in workstreams 1 and 2 will be prepared and submitted for review via the Northumbria University research ethics online process. We anticipate that University approval will be sufficient for all these activities. At the same time, we will determine which ethical approvals will be required for workstreams 3 to 5. As some of the research activities will include staff and patients within NHS services, Health Research Authority (HRA) Research Ethics Committee (REC) approval will be required and we will prepare the HRA REC application, noting that submission will be later once full details (such as the number and location of study sites for example) are known. The need for additional approvals (such as local authority governance processes or Confidential Advisory Group (CAG)) will also be determined at this stage.

Initial inclusion, engagement and knowledge mobilisation plan (IEKM plan) and PPIE plan

We will prepare an initial inclusion, engagement and knowledge mobilisation plan (IEKM plan) and an initial PPIE inclusion, involvement and engagement plan with key stakeholders who have already been involved in the design of the evaluation and the existing IDEAS-NET Patient, Public and Stakeholder (PPIES) group (this PPIES group is the IDEAS-NET team PPIE group which was set up in May 2025 and is separate from the PPIE panel we will convene for the evaluation). These initial plans will form the basis of workstream 1 (Inclusion, Engagement and Knowledge Mobilisation) which will run throughout the evaluation.

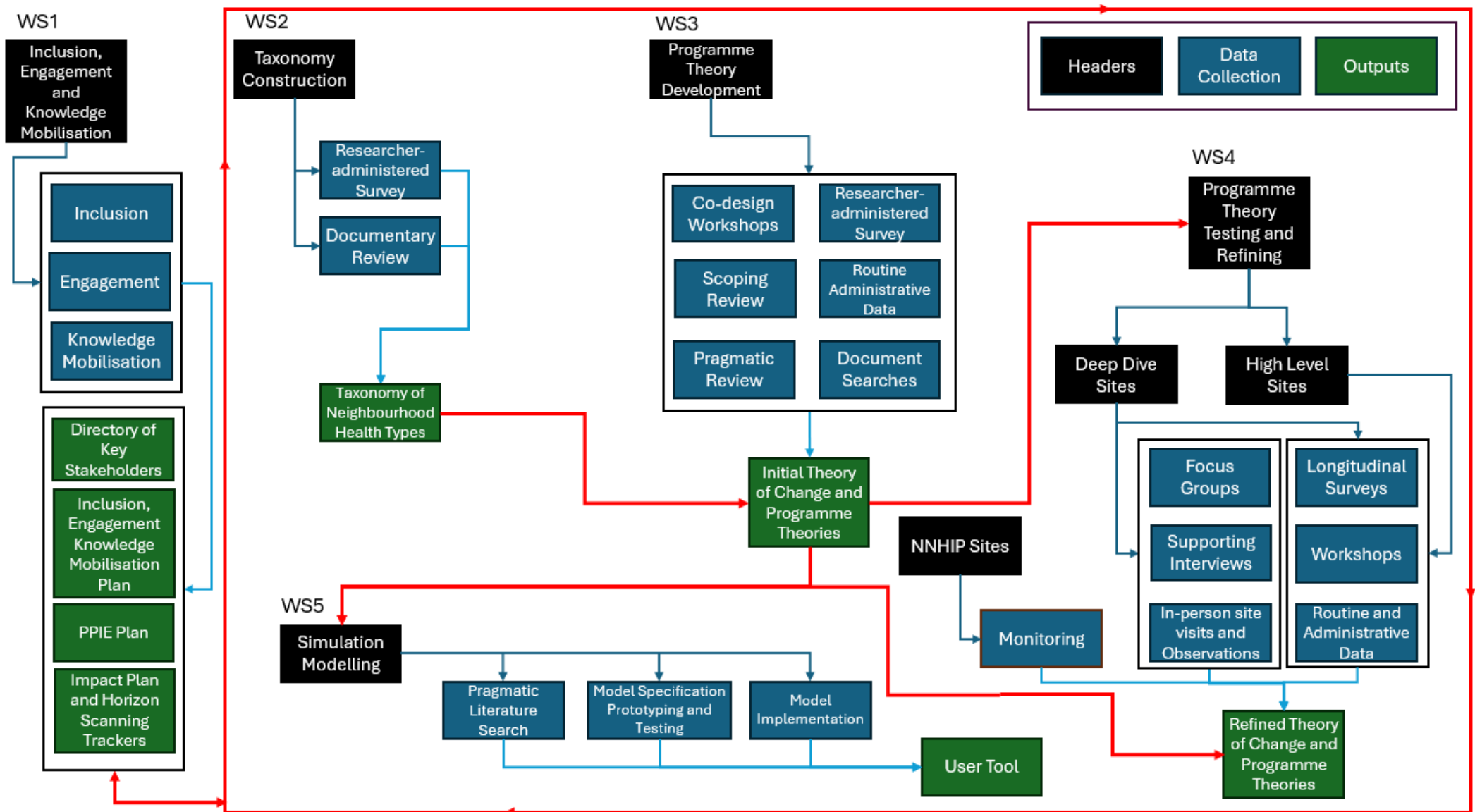


Figure 1: Overview of the study design workstreams, data collection methods and outputs

Workstream 1: Inclusion, engagement and knowledge mobilisation (1st April 2026 to 31st March 2029)

This workstream addresses objective 1: **to identify and plan how we will involve and engage key stakeholders (including PPIE representatives) for all stages of the evaluation and share our findings with them throughout the evaluation.** The workstream feeds into all research questions 1-5. Figure 2 presents an overview of this workstream.

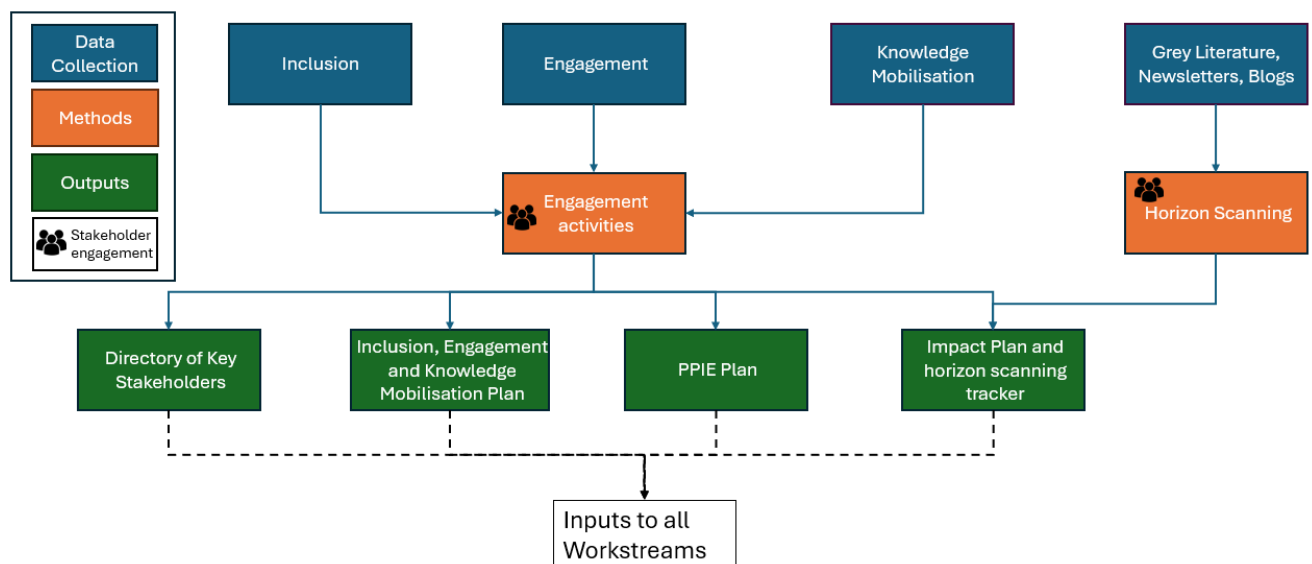


Figure 2: Workstream 1 methods of data collection, analysis and outputs.

Workstream plan

In this workstream we will (i) ensure that we identify all relevant stakeholders and plan with them how they would want to be involved with the evaluation to make sure that we engage stakeholders in a meaningful way throughout the evaluation process, (ii) share our findings with all stakeholders in a way that is timely and relevant for each group, (iii) undertake horizon scanning of new policies and guidance and (iv) ensure that we track the impacts of our work throughout the evaluation. We will review the outputs of this workstream annually and at critical junctures, such as the start and end of workstreams, to consider the relationships we have built with our existing stakeholders, any gaps in who we are engaging, and any changes in who the key stakeholders are. We will also review how our stakeholders experience their engagement with us including what we share with them.

Inclusion

The design, data collection, analysis, reporting and dissemination of this evaluation will be guided by our commitment to maximising the inclusion of diverse experiences and perspectives

using the National Institute for Health and Care Research (NIHR) Standards for Involvement. We will actively seek to include people in this evaluation by identifying and removing barriers to taking part in all evaluation activities (e.g., as a research participant, public/patient contributor, or as a participant in an engagement or dissemination activity).

We will be guided by the Implementation Stakeholder Engagement Model²⁶ (I-STEM), a non-prescriptive model for the planning of stakeholder activities that emphasises the importance of having a flexible and iterative approach. We will use I-STEM to develop a directory of key stakeholders for NbH, which will include our PPIE stakeholders, and will map these stakeholders in terms of their relationship with us and factors such as their influence, expertise and capacity. Stakeholders will include people representing integrated care boards, Health and Wellbeing Boards, primary, secondary and tertiary care; local authority directorates such as social care, public health, housing and education; community health services; and the VCSE. We will utilise existing networks and infrastructure to identify and approach stakeholders, such as participants from the co-design workshops referred to above (who indicated a preference to be involved), the NbH team at the DHSC and NHS England, national Applied Research Collaborations, Academic Health Science Networks, Health Innovation Networks, the Local Government Association, Health Determinants Research Collaborations, and the Creative Health Alliance. We will use this directory to involve relevant stakeholders at appropriate points during the evaluation according to the developed IEKM plan. We will also establish a separate PPIE panel to work with us throughout the evaluation.

Engagement

We will run workshops and consultations with our identified stakeholders including the PPIE panel at key timepoints in the evaluation. Full details of how these will be conducted will be decided by stakeholders as part of developing the IEKM and PPIE plans (see more below). It is anticipated that there will be a mix of online and in-person activities, including roadshows and asynchronous focus groups or discussion boards. Examples of engagement activities across the workstreams are as follows:

- Workstream 1: We will engage with stakeholders to build on and develop the IEKM and PPIE plans detailed in the evaluation set-up. These plans will be guided by the UK Standards for Involvement developed by the National Institute for Health and Care Research (NIHR) and by our research inclusion assessment process. The plans will be developed to be flexible to the demands of the evaluation.

- Workstream 2: We will engage with stakeholders in developing our national researcher-administered survey, reflect on our initial descriptions of NbH ‘ways of working’ and to sense-check our taxonomy.
- Workstream 3: We will engage with stakeholders to develop and sense-check our initial Theory of Change (ToC) and programme theories; and identify the range, quality and availability of data and sources.
- Workstream 4: In this workstream additional stakeholders, including PPIE will be recruited from the sites we are collecting data in. We will engage with stakeholders to review our interpretations of data (particularly the triangulation of data) and sense check the refined programme theories.
- Workstream 5: We will engage with stakeholders to develop the model specification, the design of the user tool, and initial usability testing.

Knowledge Mobilisation

Dissemination will be planned from the outset and will be outlined in the IEKM plan described above. This will set out what we want to share, when, why, and who with, including key national policy customers such as DHSC and NHS England. We will ensure regular and ongoing dissemination throughout the evaluation, recognising that different audiences will require different modes. We will therefore also explore creative methods for dissemination with our stakeholders. We recognise the importance of sharing early findings with our stakeholders and case study sites to promote shared learning and we will also seek out opportunities to promote peer learning across sites. To ensure that policy makers can make timely use of the findings of this evaluation, policy briefings will be produced at key time points during the evaluation (e.g., budgetary review periods, national and local government election periods, and political conference season).

As with dissemination, we will plan our impact from the outset, and we will record and track this throughout the evaluation. In addition, we will undertake horizon scanning (using e.g. stakeholder consultation, online alerts, regular database searches) throughout the evaluation to record changes to, or the development of, new local, regional or national policies, guidance, and legislation to ensure we track any changes that may impact on the design and delivery of NbH and/or our case study sites. We will work closely with partners at DHSC and NHS England throughout. This will include them informing us of key timepoints and deadlines for us to provide briefings (as above), and for them to keep us informed of key changes to policy or guidance that may have an impact on the evaluation. We will also monitor other research work being undertaken on aspects of the 10YHP and other interacting policy developments (e.g. the Health and Growth Accelerators, Prevention Accelerators, the 10 Year Workforce Plan and plans

for a 'national care service') to minimise duplication of effort, build on learning from other research, and share our learning.

Outputs

- Directory of key stakeholders.
- Inclusion, engagement and knowledge mobilisation (IEKM) plan.
- PPIE plan.
- Impact and horizon scanning tracker.

Workstream 2: Taxonomy construction (1st April 2026 to 30th September 2026)

Workstream 2 addresses objective 2: **to construct a taxonomy of the different ways that NbH is designed, organised and delivered, including the historical, structural and relational contexts that underpin these different ways of working;** and research question 1: **what are the different types of NbH and how are they designed, organised, and delivered?** Figure 3 presents an overview of this workstream.

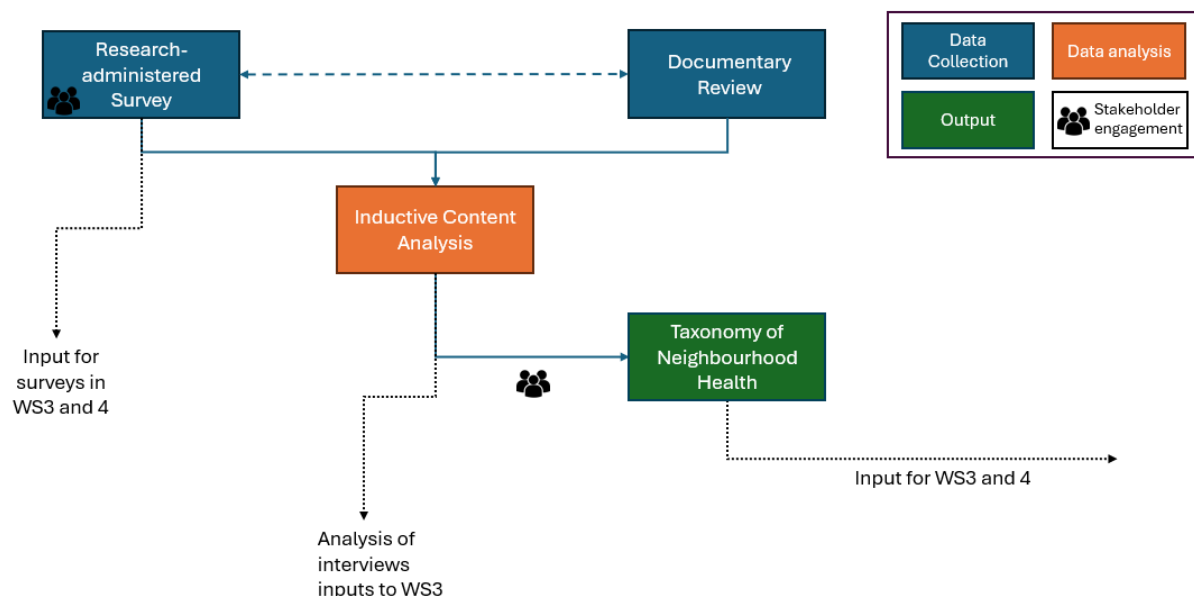


Figure 3: Workstream 2 methods of data collection, analysis and outputs.

Workstream plan

Workstream 2 involves constructing a taxonomy of the different ways that NbH is being designed, organised, and delivered in response to the 10YHP. A taxonomy is a system for classifying and organising complex phenomena into hierarchical groups (moving from broad to more specific categories) based on shared characteristics²⁷. As noted previously, lack of a

standardised model of NbH creates a challenge for evaluators. Taxonomies help to make sense of complexity and improve our understanding of relationships and the identification of key similarities and differences between discrete groups in the taxonomy^{27,28}. Creating types of NbH can also support knowledge mobilisation and implementation, and intervention development and improvement²⁹.

Documentary Review

Documentary review is a systematic method for reviewing and evaluating documents that involves finding, selecting, appraising, and synthesising the data contained in documents³⁰. We anticipate key documents that will inform the taxonomy development will be publicly available including for example the NbH plans published by Health and Wellbeing Boards, as well as DHSC and NHS ENGLAND guidance and legislation. We will also review emerging documents from other NbH evaluations including the National Neighbourhood Health Implementation Programme (NNHIP) sites, and work by Policy Research Units and relevant think tanks such as The King's Fund and The Health Foundation.

National Researcher-Administered Survey

We will develop a survey to identify the ways in which NbH is being designed, organised, and delivered across all of England's Integrated Care Systems. The utility of surveys as a realist evaluation method is increasingly being recognised, and survey questions can be framed to identify contexts, mechanisms and outcomes³¹. The survey questions will be informed by the meta-characteristics developed through the documentary review and developed in-line with the principles of realist evaluation. In addition, the survey content will be designed in consultation with stakeholders and the IDEAS-NET National Advisory Group (NAG). However, it is anticipated that the survey will include questions on governance and leadership; the extent of co-design; the breadth, depth, and maturity of the cross-sector partnerships within a system; mechanisms for integration and joint working; joint needs assessments; funding arrangements to and at the neighbourhood level; and data availability and requirements. We will also collect details (links, copies of, or information on) local and regional NbH documents to supplement the documentary review, and local and regional evaluations of NbH. The survey will be piloted with a small number of stakeholders to check usability and revised if required.

We will use the directory of key stakeholders developed in workstream 1 to identify a range of stakeholders who will be invited to participate in the survey. Stakeholders will include people

from primary, secondary and tertiary care; the local authority; community health services; and the VCSE who are involved in planning, commissioning and delivering NbH across all England's ICS areas.

The survey will be administered via telephone or Teams call by members of the research team. As noted in the study background section, there will be wide variation between and within ICSs in the design and delivery of NbH and each ICS is likely to be at different stages of overall maturity in their implementation of NbH. A researcher-administered survey is a useful tool for exploring complex topics where responses are likely to require probing or clarification³². Key stakeholders from our sample will be contacted via an email inviting them to take part in the survey. Study information and the privacy notice will be included in this email. Invitations will initially be sent to senior leaders and managers within each of the 42 ICSs (e.g., chief executives, chief delivery officers, medical directors, place leads, and strategy and partnership leads). We will also undertake 'snowball sampling', with survey respondents asked to identify colleagues within their system who may also be able to usefully respond to the survey questions. The relationship-building work undertaken in workstream 1, prior to the survey data collection, will help to maximise response rates and identify potential key respondents.

Invitees who express an interest in taking part in the survey will be asked to contact the research team to arrange a suitable date and time. Two follow-up invitations to take part in the survey will be sent. Survey data collection will take place between 1st May 2026 and 31st July 2026. Before the survey is administered, the researcher will check the respondent has read and understood the study information sheet and privacy notice. Respondents will be given the opportunity to ask questions. Verbal informed consent will be obtained from each respondent and recorded by the researcher. Survey responses will be entered by the researcher into the survey template, with priority given to the flow of conversation and audio-recordings used post-interview to ensure accuracy.

Data analysis

We will use a standardised approach to taxonomy development²⁷. The proposed taxonomy will take the form of a multi-layer structure that uses meta-characteristics and various levels of sub-characteristics²⁷. Following the method used by Lauf and colleagues, patterns in ways of working will then be explored to derive specific archetypes³³. The meta-characteristics are overarching categories that provide main categories from which sub-characteristics flow into

smaller, more defined categories until all detail within the meta-characteristic has been described. Examples of meta-characteristics likely to be particularly relevant to NbH include ways in which funding flows through systems and the patient cohorts chosen as the focus for each area's NbH services. Sub-characteristics can be developed across different levels as required, funnelling down into the detail of each meta-characteristic. The documentary review and discussions with key stakeholders will inform the taxonomy meta-characteristics.

Quantitative data from the survey will be used to inform the categories for an Inductive Content Analysis (ICA), based on the variation in responses (e.g. excluding questions 95% of the respondents provide the same answer) and low redundancy (e.g. excluding questions highly correlated with others). Qualitative data from the survey, interviews and documentary review will then be used to iterate the taxonomy, using ICA to code and refine data over several rounds of analysis. In the first rounds of coding for the qualitative data, the meta-characteristics will be applied to large segments of text. In the second coding rounds, parts of text within the categories will be coded into the more detailed sub-characteristics. The ICA will identify different types of NbH (or 'ways of working'). Sub-characteristics will be further refined through an iterative process of moving forwards and backwards between the documentary, survey and interview data.

The taxonomy will be considered final upon reaching specific ending conditions. Objective ending conditions will be met when no new dimensions are added or amended in the final iteration, there is no duplication across dimensions, and when each dimension has a minimum of one characteristic. Subjective conditions will be met when the taxonomy is concise, robust, comprehensive, extendible and explanatory²⁷. The taxonomy of types of NbH will be shared with stakeholders to check its overall representativeness.

Outputs

- Taxonomy of Neighbourhood Health types.

Workstream 3: Programme theory development (1st April 2026 to 31st Sept 2026)

Workstream 3 addresses objective 3: **to develop initial programme theories of how NbH may work, for whom, and in which circumstances, drawing on national and international evidence, formal theories, and stakeholder input**; and research question 2: **what are our initial theories of how NbH may work?** Figure 4 presents an overview of this workstream.

Workstream plan

In this workstream we will develop initial programme theories (IPTs) to describe how NbH is expected to work and in which conditions it should work. IPTs are gleaned from previous research into similar interventions, input from stakeholders, documentary analysis of how the intervention is supposed to work, and the identification of formal theories. We will draw on a scoping review, a pragmatic review of formal theories, and a secondary analysis of the evaluation workshops (conducted in the earlier co-design research), the survey data, documentary review, and interviews conducted in workstream 2.

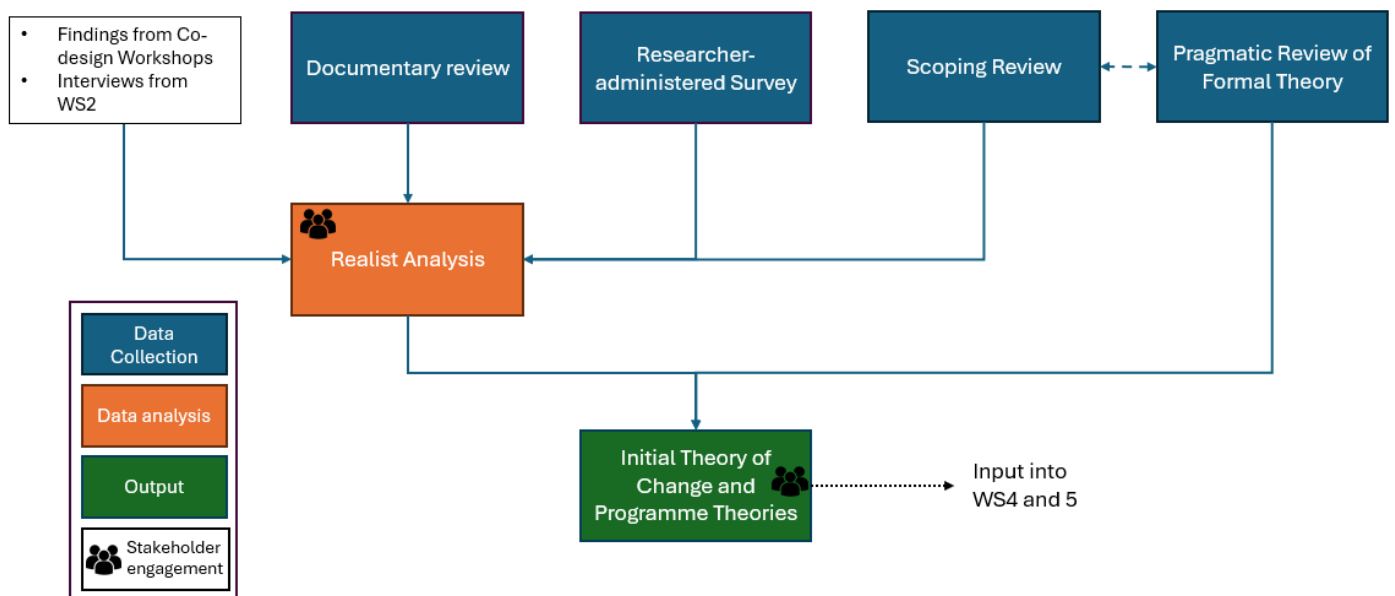


Figure 4: Workstream 3 methods of data collection, analysis and outputs.

Data collection

Scoping review

To identify evaluations of similar interventions (e.g., integrated care interventions), a scoping review of peer-reviewed and grey literature will be carried out to systematically identify, describe, categorise, and catalogue the breadth of evidence available on neighbourhood health type interventions. Searches will be carried out in Health Medical Collection (including MEDLINE), ASSIA, PsycARTICLES and CINAHL. Grey literature will be sourced from searches in Google, Overton, relevant websites (e.g., Gov.uk pages) and key stakeholders. Broad search terms will be used to maximise the likelihood of identifying all relevant literature. We will undertake provisional searches to gauge the number results and will revise our terms and searches accordingly to narrow our focus or build on existing systematic reviews of integrated care and the grey literature, as required. Independent study selection and data charting will be

carried out. Literature will be grouped according to concepts/definitions, component parts/theory of change and evidence of impact/effectiveness. Data may be presented in a narrative format, table, or visual representation, including a map or diagram. A full scoping review protocol following Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines will be developed and registered on an applicable database.

Pragmatic Review of Formal Theory

We will conduct a pragmatic literature review to identify formal theories relevant to NbH. This review will be purpose-driven, aiming to identify theories that can inform the development of our own theoretical framework rather than comprehensively mapping all published literature. Identifying formal theories is worthwhile because they provide tested constructs, explanatory mechanisms, and conceptual clarity that can help strengthen and guide the development of our theoretical framework³⁴. However, only formal theories identified through the pragmatic review that are judged relevant and useful for understanding NbH and informing our framework will be incorporated, based on their explanatory power. Searches, using a combination of key words and Medical Subject Headings (MeSH), will be applied to Google Scholar, selected bibliographic databases, AI-assisted literature tools, and consultation with field experts, following a systematic but non-exhaustive approach. We will also conduct a focused search of grey literature, such as reports and policy documents from NbH-related initiatives, for additional relevant theories. Identified documents will be screened for theoretical content, and key concepts, assumptions, and applicability will be extracted and synthesised using a narrative approach to guide the development of our theoretical framework. This approach aligns with recommendations by Booth and Carroll³⁵.

Secondary data

Data from the stakeholder workshops (from the previous co-design research), the survey, documentary review, and interviews conducted in workstream 2 will be used to inform the IPT development.

Data analysis

All data will be analysed using a realist approach to identify explanatory patterns of context, mechanism and outcome to inform our IPTs. Our IPT development will align with phases of realist programme theory development as outlined by Shearn et al³⁶. We will construct IPTs

based on programme documentation (from the documentary analysis conducted in workstream 2), evaluations of similar interventions (scoping review and pragmatic review of formal theories) and tacit knowledge ('lay theories') elicited from stakeholders (the earlier co-design workshops and the national survey conducted in workstream 2). Any relevant formal theories identified through the pragmatic review will be incorporated to provide additional explanatory frameworks for understanding how change may occur at different levels of the system. Additional workshops will be held with stakeholders and members of the PPIE group to reflect on, sense check and refine the IPTs. Consistent with a realist approach, IPTs will be iteratively refined using abductive and retroductive reasoning³⁷ to ensure they account for both empirical evidence and theoretical insights. We will also identify data requirements and data sources for testing the IPTs (to be undertaken in WS4) through these stakeholder workshops and in consultation with the IDEAS-NET National Advisory Group.

Outputs

- A scoping review of models of integrated care.
- Initial programme theories for NbH.
- Data collection and analysis plan.

Workstream 4: Programme theory testing and refinement (1st Oct 2026 to 31st August 2028)

Workstream 4 will address objective 4: **to test and refine theories of how NbH works across different types of NbH in the taxonomy and across different geographies and demographics, recording how changes in local, regional and national policies can frame these findings;** and research questions 3 and 4: **how do these theories of explain how different types of NbH work (or not) in practice? How do changes in local, regional and national policies influence the design, development or delivery of NbH over the course of the evaluation and impact on our findings?** Figure 5 presents an overview of the workstream.

Workstream plan

In this workstream we will test and refine the IPTs developed in workstream 3, collecting a mix of qualitative and quantitative data from a range of deep-dive and high-level case study sites. We will also seek to understand the resource requirements associated with different NbH types and collect data to identify and measure these.

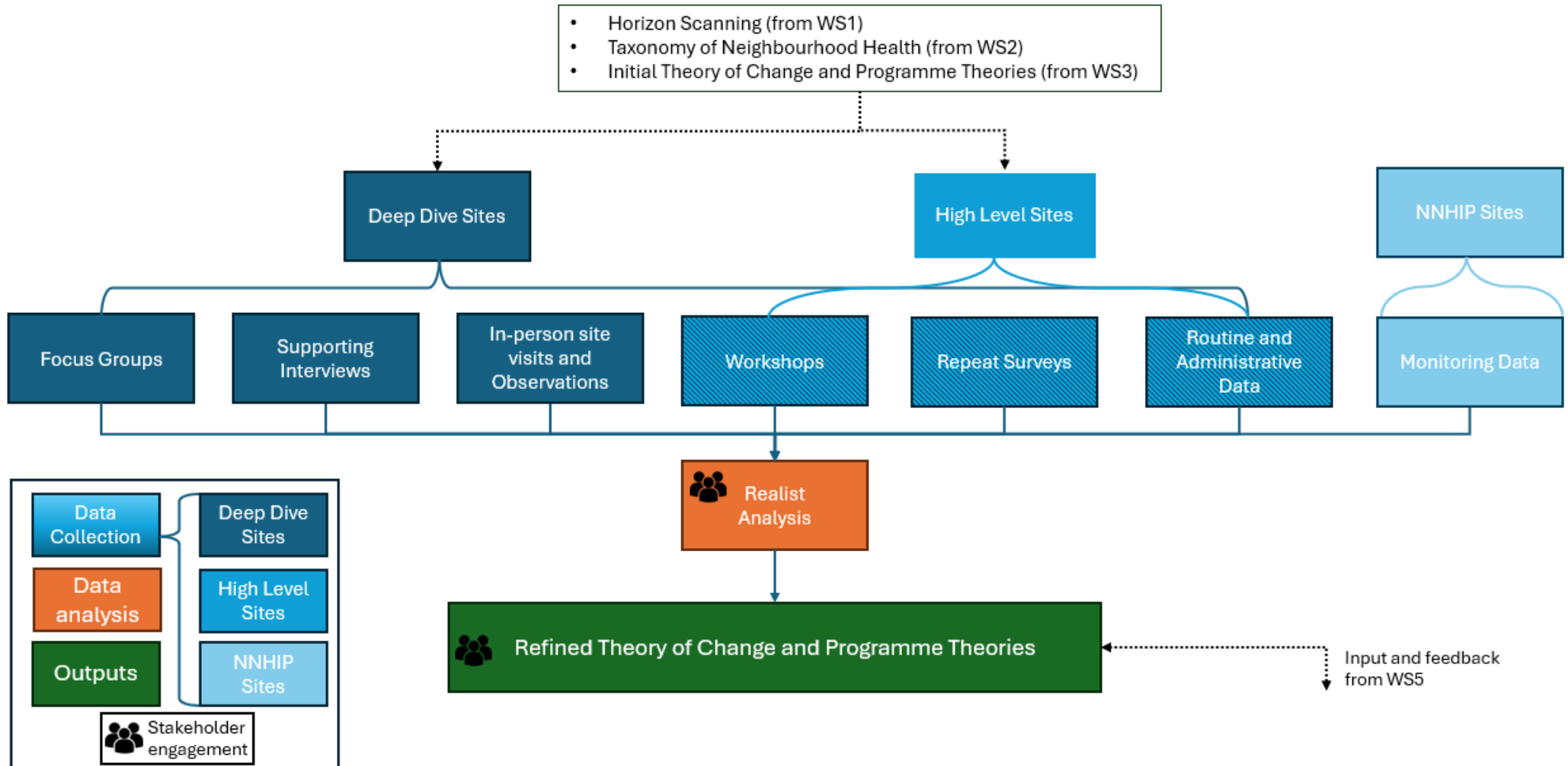


Figure 5: Workstream 4 methods of data collection, analysis and outputs.

Sampling

The taxonomy developed in workstream 2 will be used to develop a realist-informed sampling strategy for the selection of sites for testing the initial programme theories. Following realist principles, we aim to select sites that will help us understand how, why, for whom, and under what circumstances different types of NbH work. Drawing on Emmel's³⁸ work on purposive case selection in realist research, we will focus on cases that are theoretically relevant, maximally diverse, and information rich. In addition, maximum variation sampling will be used to ensure a range of cases across types of NbH *and* geographic or demographic characteristics that might influence NbH design and delivery at the local level. These characteristics will reflect findings from the co-design work that highlighted a wide range of site-selection characteristics and include dimensions such as population socio-demographic characteristics (age, ethnicity, deprivation profiles), geographical characteristics (e.g., urban, rural, or coastal), and system-level (ICS) characteristics (e.g., size of system footprint, administrative boundaries, healthcare economy). Types of NbH from the taxonomy will be cross tabulated against data on these characteristics obtained from publicly available sources and routine administrative data (e.g., census data and the Office for National Statistics (ONS) Open Geography portal) to inform site selection.

Sites will be selected for one of two levels of enquiry: deep dive and high level. We will collect more data, at greater depth, and at more time points in deep dive sites. For deep dive sites we anticipate collecting data in up to two sites per type of NbH identified in the taxonomy, with a maximum of six to ten sites in total. The number of high-level sites will depend on the number of types and stratification characteristics, but we anticipate collecting data in up to 30 sites in total.

Site recruitment

Potential sites and contacts will be identified through the previous workstreams. The knowledge mobilisation work planned in workstream 1 will help us to build strong relationships with key stakeholders to maximise participant engagement with the evaluation. Sites will be contacted and sent information on participation and consent. We will work with sites to obtain necessary approvals and develop a plan for working with them, including who will be our main contact(s) at each site, how we will collect data and who we need to involve at each site including PPIE. We will consider the circumstances each site will be facing, including changes to NHS structures that may result in job losses (e.g., ICB mergers), local government reform, and the requirement

for sites to conduct their own evaluations. We will approach both site selection and recruitment sensitively, ensuring our evaluation complements, rather than adds to, the work sites are already undertaking. We will record information on how sites are recruited, and who has been involved in recruitment to be transparent about any potential biases in site selection. We will also be aware of any limitations to the evaluation if we are unable to recruit sites that cover all types of NbH identified in our taxonomy.

Data collection

We will adopt a concurrent mixed-methods comparative case study design to collect primary and secondary qualitative and quantitative data from case study sites.

Online survey

Surveys will be undertaken with all evaluation sites at three time points to identify changes that happen over the period of the data collection. We anticipate that this survey will be undertaken at 8, 16 and 24 months. As in workstream 2, the survey will be developed in-line with realist evaluation by using survey questions designed to test our programme theories. Alongside qualitative survey data, this will likely include the collection of quantitative survey data and validated measures. We collect data to identify and measure resources aligned to sites (including capital, equipment and human) and how these changed over time; and elicit information on any changes to policies and practices at each site. The findings from this survey will inform the topic guides for focus groups, workshop plans and ethnographic observation.

Realist focus groups and interviews

Qualitative data will be collected through realist focus groups supplemented, where appropriate and necessary, by one-to-one interviews. Focus groups and one-to-one interviews will be conducted in deep-dive sites only. Focus groups are increasingly being recognised as valuable tool for testing and refining programme theories in realist evaluations³⁹. Focus groups are useful for examining group reasoning, relational interactions (e.g., body language, eye contact), and sub-group responses to theories³⁹. We anticipate conducting up to six focus groups per site held either online or in-person. Focus groups will use the teacher-learner cycle, an established method in data collection for realist evaluations⁴⁰. Discussions will be framed around the IPTs and will help identify patterns of mechanisms and contextual factors to strengthen and refine the programme theories. Programme theories may operate differently within different sub-groups; therefore, focus group composition will be chosen based on its

usefulness for theory testing and refining³⁹. For example, one focus group might comprise senior leaders from across a system, another might comprise front-line staff working in primary care, and another might comprise participants from a range of roles and working at different levels of a system. Focus groups will be audio-recorded and transcribed.

One-to-one interviews will be used to supplement the focus groups; for example, where participants may have unique insights into a programme theory, where potentially sensitive topics might be discussed, or for pragmatic reasons such as participant availability. Interviews will be conducted online or face-to-face considering participants' preferences. Interviews will also be conducted using established realist interviewing methods, using the same teacher-learner cycle⁴⁰ as in focus groups to present our IPTs to participants, for reflecting, confirmation or refinement of these theories. This iterative process allows participants to contribute insights that actively test, validate and refine the programme theories. Interviews will be audio-recorded and transcribed.

In-person site visits and structured observations

In-person site visits and structured observations will be held in deep-dive sites only. The nature of the observation will be agreed with sites in advance and will be conducted overtly. These observations will likely include structured observations of meetings, as well as informal interactions, to observe decision-making, adaptations, and contextual influences.

Observations will be captured using field notes and site diaries, along with collection of documents (e.g. meeting agendas and minutes) with permission of meeting participants.

Observations will be used to triangulate and refine IPTs alongside interviews and focus groups.

Workshops

Workshops will be held in both deep-dive and high-level sites. Workshops will bring participants together from across the sites with a separate workshop for all deep-dive sites and another for high-level sites. Workshops will be repeated at approximately three time points during the evaluation, following each survey round. In addition to supporting participatory theory testing in the high-levels sites where in-depth qualitative data collection is not being undertaken, workshops will be used to explore similarities and differences across sites. Structured activities and facilitated discussion will be used in the workshops to reflect on, refute, confirm or refine the theories providing feedback on mechanisms, contextual factors, and emerging patterns across and between sites. Workshops will also be used to share early findings and learning.

Routine and administrative quantitative data

We will collect routine and administrative quantitative data from all deep-dive and high-level sites. Data sets and variables will be determined from our IPTs. We will review the quality of potential data sources (e.g., in terms of completeness, accuracy and timeliness) and select the most robust and appropriate sources to enable testing of the programme theories. We will work closely with the NNHIP to ensure that we are aware of existing data sources and measures, including Patient-Reported Outcomes and Experience Measures, patient activation measures, staff satisfaction and engagement measures, and secondary care use measures such as reduced outpatient activity and unplanned hospital admissions⁴¹. We anticipate that we will need to capture data on similar metrics, potentially with the addition of sociodemographic data, social care outcome measures such as the Adult Social Care Outcomes Framework, and carer burden (e.g., the Burden Scale for Family Caregivers). The national survey conducted in workstream 2 will also include questions on data being collected in each system to measure NbH outcomes.

We will source data from administrative data sets (such as the ONS), as well as nationally and locally collected routine health (including GP), social care, and local government data. Where required we will request anonymised patient-level data via the Secure Data Environment, NHS England Data Access Request Service (DARS) or the Clinical Practice Research Datalink (CPRD). In addition, we will also seek to put in place data sharing agreements with sites that are collecting primary data to support internal evaluations of NbH, to allow the sharing of this data, including data gathered through the NNHIP.

National Neighbourhood Health Implementation Programme sites

Although we are not evaluating the NNHIP⁴², we will endeavour to monitor process outcomes of the 43 NNHIP sites, as appropriate. This will include routinely collected qualitative and quantitative data that are being collected by these sites as part of the NNHIP. We will ask each site if they are able to share data they collect with us and if this is not possible, we will use nationally collected data (e.g. Office for Health Inequalities and Disparities (OHID)). This monitoring will help us to understand the wider context of the NbH roll-out and to identify early insights and indications of outcomes to inform workstream 5. No additional primary data will be collected from these sites unless they are also selected as a deep-dive or high-level site.

Data analysis, triangulation and interpretation

Data from all sources will be analysed in ways to test (i.e. support, refine, or refute) the programme theories. Qualitative data will be analysed using a realist logic of analysis to examine how mechanisms operate within different context to produce outcomes. Quantitative data, including survey and routine administrative data, will be analysed using appropriate methods depending on the nature of the data (e.g. interrupted time series, difference-in-difference, or regression modelling) to explore patterns in the data to test our IPTs. Evidence from these multiple sources will be compared and contrasted, with discrepancies between the sources examined to understand under what contexts, mechanisms operate as expected or differently. Refined programme theories will be presented in workshops with stakeholders, for sense-checking and feedback. In-person workshops will be held with all evaluation sites to share the evolving programme theories and discuss emerging findings, while online workshops will be offered to other stakeholders to provide additional opportunities for reflection and input to the analysis. The format of the workshops (e.g., mixed stakeholder groups or separate sessions) will be decided based on our ongoing experience of working with stakeholders and their expressed preferences. Insights from these workshops will be used to further refine and validate the IPTs, ensuring that the evolving ToC reflects stakeholder perspectives and the diversity of contexts across evaluation sites.

Outputs

- Refined programme theories.
- Refined theory of change.

Workstream 5: Simulation modelling (1st April 2028 to 31st March 2029)

Workstream 5 will address objective 5: **to simulate the refined theories to model the long-term outcomes and funding flows for different types of NbH in the taxonomy and identify plausible scenarios for testing in the ongoing evaluation and monitoring of NbH**, and research question 5: **what are the long-term outcomes and impacts associated with different types of NbH and implications for the continued implementation of NbH?** Figure 6 presents an overview of this workstream.

Workstream plan

Outputs from previous workstreams will be used to inform the development and refinement of a model to simulate the long-term outcomes and funding flows for different types of NbH. Whilst we will attempt to incorporate cost considerations and implications for funding flows into the

model, it is not possible to construct a full economic model to support an analysis of cost effectiveness of NbH.

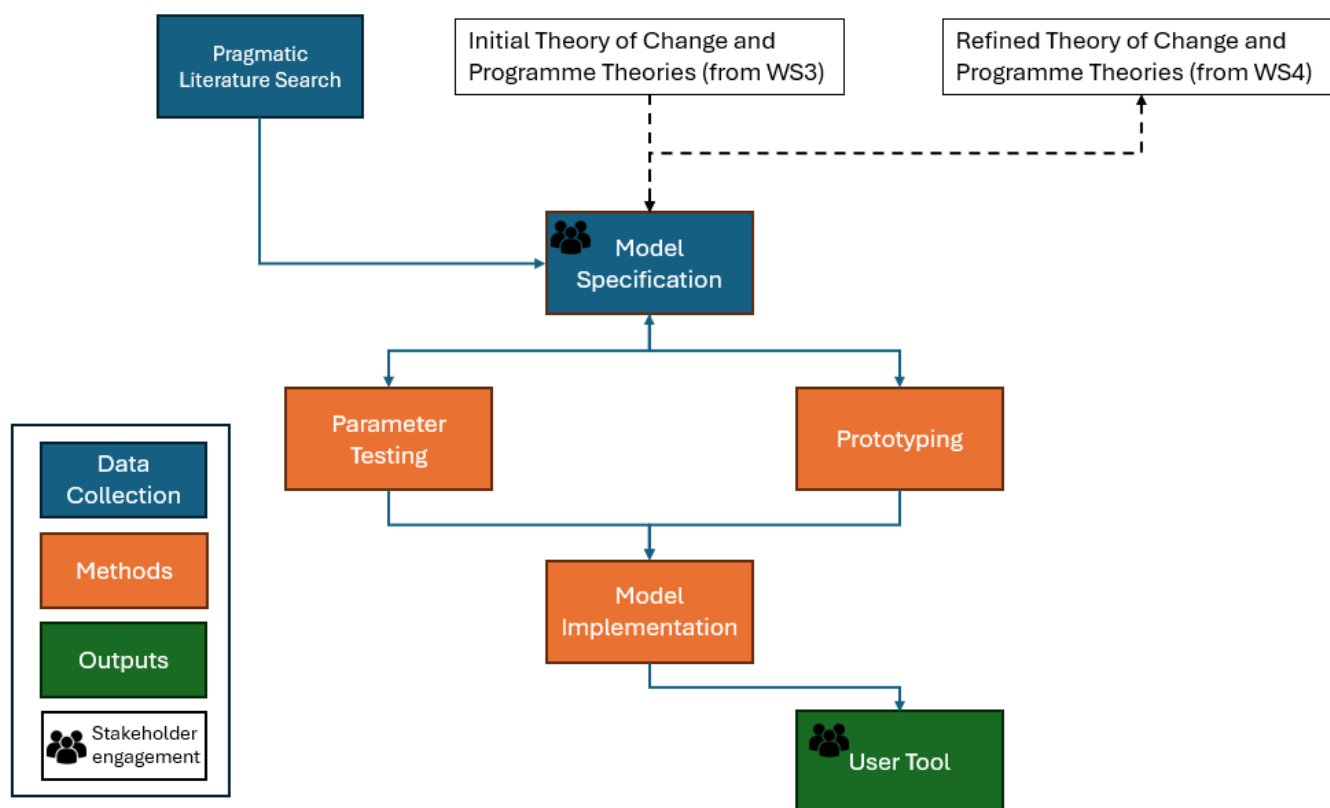


Figure 6: Workstream 5 methods of data collection, analysis and outputs.

Data Collection and Analysis

Pragmatic Literature Search

We will conduct a pragmatic literature search for examples of predictive models that have been used for large complex evaluations. Tools such as Directed Acyclic Graphs (DAGs)^{43,44} or Bayesian Networks will be used for the transformation of the ToC to identification of scenarios to choice of model. We aim to identify a shortlist of modelling approaches that meet a set of pre-determined criteria based on data requirements, alignment to a realist philosophy and generative causation, and complexity.

Model Specification

Using the outputs from workstream 2 (the taxonomy) and workstream 3 (the IPTs and ToC), we will further explore the fit and utility of the modelling approaches identified in our review, using synthetic data. In doing so we will derive the initial parameter set for the modelling. Some of

these parameters may be data-driven, so constant input and feedback to workstream 4 will be necessary to ensure that data is being collected from sites to feed into the model.

Model prototyping and testing

Plausible scenarios for modelling will be explored through stakeholder engagement workshops and with the IDEAS-NET NAG. These scenarios will be prototyped and tested using one of several statistical packages: R, Stata, or MATLAB. Incremental updates, primarily on model parameters, will be made as more data become available from workstream 4 and again in discussion with stakeholders.

Model Implementation

The finalised model will be constructed using the data and outputs from workstream 4 together with the resource and funding flows data gathered in workstream 4. At this time, we will explore the creation of a user interface in the form a user tool, to support end user interaction with the model, including the feasibility of hosting an open source model. The interface would allow users to adjust model parameters beyond the lifespan of the evaluation to gauge how outcomes may change with newly available data. Changes observed to outcomes over time could aid in identifying priorities for future evaluations. While the interface could be used for several years, it must be noted the model (and its underlying assumptions) will not be updated. Hence, any substantial amendment to NbH cannot be reflected in the model after the evaluation.

Outputs

- User tool.
- Policy briefings on the implications for practice and future evaluation.

Ethics

We will comply with all legal and ethical obligations including the Data Protection Act 2018, the UK General Data Protection Regulation (GDPR) and the Helsinki Declaration (2013). All necessary ethical approvals will be sought and obtained prior to start of data collection for respective workstreams, including NHS HRA REC and CAG. We will obtain informed consent, ensuring confidentiality and anonymity, respecting participants' autonomy, and minimising potential risks of harm. We will conduct our evaluation in a way that recognises and maintains the dignity, autonomy and rights of participants. We will engage ethically and respectfully with participants, including by ensuring we gain informed consent by providing participants with timely, clear and accessible information (e.g., using plain English or Easy-Read versions) that

explains the purpose of the evaluation, what taking part involves, any potential risks or benefits from taking part, and how their data will be used and stored. Study information will also stress to participants that their involvement is voluntary, and that they have the right to withdraw from the evaluation at any time without giving a reason and with no negative consequences. To protect participant confidentiality all research data will be pseudo-anonymised and stored securely, with access to identifiable data limited to authorised members of the evaluation team. Details of secure data management processes are included below.

Research Inclusion

We have developed an IDEAS-NET research inclusion strategy, which covers all aspects of our evaluations, including the identification of research and PPI participants; data collection, public involvement and engagement/dissemination activities; data analysis; and knowledge mobilisation activities. Our inclusion strategy outlines how we will work in ways that meet our principles of inclusivity, accessibility, transparency, respectfulness, and valuing people.

We will be aware of potential power imbalances, particularly when working with potentially vulnerable or marginalised groups. Our research inclusion strategy commits to treating people with respect and as equals who have skills, knowledge and experience to bring to our evaluation activities. We will encourage and enable participants to ask questions by providing a named contact and a range of contact methods. We will value people's involvement in the evaluation by recognising their contributions through payments (at NIHR Involve rates) or, depending on participant preference, through other types of recompense such as training opportunities. We will also ensure we always thank people for taking part and, if wanted, provide timely feedback on the evaluation and any impacts of their involvement. We regularly report on how we are meeting our commitments to inclusion. Research inclusion is a standing item on the agendas of our regular research and governance meetings. All members of the IDEAS-NET attend training on Equality and Diversity and Safeguarding. Team members are also supported and encouraged to take part in further equality, diversity, and inclusion (EDI) training. All EDI training is recorded and regularly reviewed to identify knowledge gaps.

Data Management Plan

Data to be collected

Qualitative data

Before commencement of any research data collection involving individuals we will obtain informed consent from participants. Interviews, workshops and focus groups will be audio recorded and transcribed. Written notes from workshops participants and observation field notes will be digitised immediately after the interaction. Summaries of these activities may be circulated among participants and to stakeholders for reflection. Final results will be published in public domain (e.g., scientific journals). Summaries and publications may include anonymous direct quotes.

Quantitative data

Quantitative anonymised or pseudonymised data will be obtained from the relevant organisations (e.g., ONS) or be collected during case studies in workstream 4. Data sharing agreements will be secured, where required. Patient-level data is likely to be required for within-sites analysis.

Data storage, retention and security

All electronic data files will be moved for long-term storage in Northumbria University's secure server and deleted from original storage or destroyed (e.g., paper notes). Physical materials requiring long-term storage (e.g., Informed consent forms) will be preserved securely in a locked cabinet. Quantitative data will be handled within the providers secure environment or downloaded to Northumbria University's secure server. To access any data the personnel will need to be affiliated to Northumbria University, be part of IDEAS-NET, and have completed all university-mandated training. If access needs to be provided to external personnel for any reason, it will be done so in accordance with university policy and after completion of mandatory training. All data will be preserved in line with the Northumbria University's research records retention policy.

AI Usage Statement

For any work generated during the evaluation, any use of artificial intelligence (AI) will be explicitly declared with the following statement:

Portions of this document [TITLE] were created with assistance from [AI Tool]. Specifically [LIST OF TASKS] involved the use of AI. The document has been reviewed and subsequently edited by [AUTHOR/GROUP], who take full responsibility for the contents. All actions are compliant with

Northumbria University's AI usage policy. For more information on the extent and nature of AI usage, please contact the author(s).

Project Management, governance and oversight

IDEAS-NET comprises a core team of co-located methodologists and dedicated research staff. IDEAS-NET is supported by three external groups: a National Advisory Group, a PPIES group and an independent steering group. Together they will provide critical oversight of the evaluation. Day-to-day management of the project will be carried out by the evaluation Principal Investigators (AB and JS) with support of the IDEAS-NET Project Manager (LAC). The IDEAS-NET executive (AB, SD, JS, LAC and VH) will provide strategic leadership and oversight of all activities. Contract management will be the responsibility of the executive. The executive will report regularly to the independent steering group (annually) and the NIHR. As noted in workstream 1, we will work closely with partners at the DHSC and NHS ENGLAND, including continuing our current regular informal meetings with representatives from the DHSC and NHS England. A formal report will be submitted every six months to the DHSC. The DHSC have agreed to inform us of key timepoints and deadlines for us to provide briefings, and to keep us informed of key changes to policy or guidance that may have an impact on the evaluation.

Risk management strategy

The risk management strategy focuses on proactively identifying potential risks to the project so that effective mitigation measures and controls can be implemented early. The Project Manager will ensure continuous oversight through a project tracker that monitors the project plan, actions, risks, issues, changes, and lessons learned. Progress and emerging concerns will be communicated through weekly project meetings, with any significant risks escalated to the executive as needed to enable timely review, decision-making, and response.

Study Timelines

Workstream	2026												2027												2028												2029		
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
Evaluation set up																																							
Workstream 1: Inclusion, engagement and knowledge mobilisation																																							
Workstream 2: Taxonomy construction																																							
Workstream 3: Programme theory development																																							
Workstream 4: Programme theory testing and refining																																							
Workstream 5: Simulation modelling																																							

References

1. IDEAS-NET. Developing an NIHR Health and Social care Delivery Research (HSDR) national evaluation team. The InterDisciplinary Evaluation of complex innovations in heAlth and Social care (IDEAS) Team. - NIHR Funding and Awards. <https://fundingawards.nihr.ac.uk/award/NIHR163969> (2025).
2. UK Government. *Fit for the Future: 10 Year Health Plan for England*. <https://www.gov.uk/government/publications/10-year-health-plan-for-england-fit-for-the-future> (2025).
3. Morris, L., Baird, B. & Charles, A. What Is Neighbourhood Health? | The King's Fund. <https://www.kingsfund.org.uk/insight-and-analysis/long-reads/what-is-neighbourhood-health> (2025).
4. Casey Commission. Independent Commission on Adult Social Care. https://caseycommission.co.uk/?d102_cookies_enabled=all.
5. NHS England. Core20PLUS5 (adults) – an approach to reducing healthcare inequalities. <https://www.england.nhs.uk/about/equality/equality-hub/national-healthcare-inequalities-improvement-programme/core20plus5/>.
6. UK Government. Chancellor to double down on drive to cut NHS waiting times and rollout of new Neighbourhood Health Centres. <https://www.gov.uk/government/news/chancellor-to-double-down-on-drive-to-cut-nhs-waiting-times-and-rollout-of-new-neighbourhood-health-centres> (2025).
7. Beech, J. & Pettigrew, L. Neighbourhood health is the right ambition – but will the 10-year plan deliver? - The Health Foundation. *The Health Foundation* <https://www.health.org.uk/features-and-opinion/blogs/neighbourhood-health-is-the-right-ambition-but-will-the-10-year-plan> (2025).
8. NHS Confederation. Health and devolution reforms 2025: what you need to know. <https://www.nhsconfed.org/publications/health-and-devolution-reforms-2025> (2025).
9. NHS England. Medium Term Planning Framework – delivering change together 2026/27 to 2028/29. <https://www.england.nhs.uk/long-read/medium-term-planning-framework-delivering-change-together-2026-27-to-2028-29/>.
10. NHS Confederation. Medium Term Planning Framework: what you need to know. <https://www.nhsconfed.org/publications/medium-term-planning-framework-what-you-need-know>.
11. NHS. Five Year Forward View. <https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf> (2014).
12. Fuller, C. Next steps for integrating primary care: Fuller Stocktake report. *NHS England* (2022).
13. Ling, T., Fahy, N. & Dawney, J. Reframing the evaluation of integrated care; examples from the NHS in England. *Health Policy (New York)*. 105418 (2025) doi:10.1016/J.HEALTHPOL.2025.105418.
14. NHS England. The journey to integrated care systems. <https://www.england.nhs.uk/integratedcare/what-is-integrated-care/the-journey-to-integrated-care-systems/>.

15. Pettigrew, L. M., Beech, J., Alderwick, H. & Smith, J. From hospital to community? The good, the bad, and the ugly of the 10-year plan to move care to the community. *British Journal of General Practice* **75**, 440–442 (2025).
16. Skivington, K. *et al.* A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance. *BMJ* **374**, (2021).
17. Best, A. *et al.* Large-System Transformation in Health Care: A Realist Review. *Milbank Q.* **90**, 421 (2012).
18. Baxter, S. *et al.* The effects of integrated care: A systematic review of UK and international evidence. *BMC Health Serv. Res.* **18**, (2018).
19. Kumpunen, S., Edwards, N., Georghiou, T. & Hughes, G. Why do evaluations of integrated care not produce the results we expect? *Int. J. Care Coord.* **23**, 9–13 (2020).
20. Davidson, L., Scott, J. & Forster, N. Patient experiences of integrated care within the United Kingdom: A systematic review. *Int. J. Care Coord.* **24**, 39–56 (2021).
21. Henderson MNursing, L. *et al.* Integrated health and social care in the community: A critical integrative review of the experiences and well-being needs of service users and their families. *Health Soc. Care Community* **29**, 1145–1168 (2021).
22. Pawson, Ray. & Tilley, Nick. Realistic evaluation. 235 (1997).
23. Dalkin, S. M., Greenhalgh, J., Jones, D., Cunningham, B. & Lhussier, M. What's in a mechanism? Development of a key concept in realist evaluation. *Implementation Science* **10**, 1–7 (2015).
24. Renmans, D. & Castellano Pleguezuelo, V. Methods in realist evaluation: A mapping review. *Eval. Program Plann.* **97**, 102209 (2023).
25. The RAMESES II Project. www.ramesesproject.org.
26. Potthoff, S. *et al.* Towards an Implementation-STakeholder Engagement Model (I-STEM) for improving health and social care services. *Health Expect.* **26**, 1997–2012 (2023).
27. Nickerson, R. C., Varshney, U. & Muntermann, J. A method for taxonomy development and its application in information systems. *European Journal of Information Systems* **22**, 336–359 (2013).
28. Valentijn, P. P. *et al.* Towards a taxonomy for integrated care: a mixed-methods study. *Int. J. Integr. Care* **15**, e003 (2015).
29. Lokker, C., McKibbin, K. A., Colquhoun, H. & Hempel, S. A scoping review of classification schemes of interventions to promote and integrate evidence into practice in healthcare. *Implementation Science* **10**, 27 (2015).
30. Bowen, G. A. Document Analysis as a Qualitative Research Method. *Qualitative Research Journal* **9**, 27–40 (2009).
31. Westhorp, G. & Feeny, S. Using surveys in realist evaluation. *Eval. J. Australas.* **25**, 45–64 (2025).
32. Ranganathan, P. & Caduff, C. Designing and validating a research questionnaire - Part 1. *Perspect. Clin. Res.* **14**, (2023).

33. Lauf, F. et al. *Exploring Design Characteristics of Data Trustees in Healthcare — Taxonomy and Archetypes*. (2023).
34. Westthorp, G. Using complexity-consistent theory for evaluating complex systems. *Evaluation* **18**, 405–420 (2012).
35. Booth, A. & Carroll, C. Systematic searching for theory to inform systematic reviews: is it feasible? Is it desirable? *Health Info. Libr. J.* **32**, 220–235 (2015).
36. Shearn, K., Allmark, P., Piercy, H. & Hirst, J. Building Realist Program Theory for Large Complex and Messy Interventions. *Int. J. Qual. Methods* **16**, (2017).
37. Jagosh, J. Retroductive theorizing in Pawson and Tilley’s applied scientific realism. *J. Crit. Realism* **19**, 121–130 (2020).
38. Emmel, N. Sampling and Choosing Cases in Qualitative Research: A Realist Approach. *Sampling and Choosing Cases in Qualitative Research: A Realist Approach* <https://doi.org/10.4135/9781473913882> (2013).
39. Manzano, A. Conducting focus groups in realist evaluation. *Evaluation* **28**, 406–425 (2022).
40. Manzano, A. The craft of interviewing in realist evaluation. *Evaluation* **22**, 342–360 (2016).
41. NHS England. *The National Neighbourhood Health Programme: Local Place Welcome Pack*. (2025).
42. Neighbourhood Health - Home. <https://neighbourhood-health.co.uk/>.
43. Maier, R., Grabinger, L., Urlhart, D. & Mottok, J. Causal Models to Support Scenario-Based Testing of ADAS. *IEEE Transactions on Intelligent Transportation Systems* **25**, 1815–1831 (2024).
44. Fleischer, N. L. & Diez Roux, A. V. Using directed acyclic graphs to guide analyses of neighbourhood health effects: an introduction. *J. Epidemiol. Community Health* (1978). **62**, 842–846 (2008).

Version control:

Version	Changes	Date
1	Version 1	30/1/2026

Next Review Date: by 10 April 2026