



EUROPE

Strengthening local innovation-implementation ecosystems

Learnings from four innovation hubs across England

Final report

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Abstract

Context: In 2021, the Health Foundation launched the Adopting Innovation Programme to help people within the NHS become better adopters of innovation. Through the programme, the Health Foundation funded four 'innovation hubs' across NHS provider organisations in England. The Health Foundation was not prescriptive in how hubs should approach their remit, but it did expect that they partner with local organisations to draw on available resources and expertise. As a part of the programme, an external learning partner, the Innovation Unit, was commissioned to provide bespoke capacity building and learning support in the form of one-to-one hub coaching and cross-hub peer-to-peer engagement. Each hub also appointed a local evaluator to monitor progress and measure local impact. RAND Europe was commissioned by the Health Foundation to conduct an independent programme-level evaluation across the four hubs.

Approach: This report describes findings from RAND Europe's formative and summative evaluation. Data were collected through surveys of each hub and other programme stakeholders (such as partner organisations), a document review of hub progress reports and other programme materials (e.g. applications), and interviews with key stakeholders.

Findings: Hubs established themselves in local healthcare settings, each with existing, complex innovation-implementation ecosystems that, to varying degrees, already supported innovation adoption and spread. Each hub started from a different place but converged towards integrating more closely with local systems and added

value in terms of three core functions: (i) providing central coordination of innovation activities; (ii) disseminating information and raising awareness about innovation; and (iii) catalysing partnerships by connecting key players involved in innovation activities. All four hubs tended to select from a suite of similar activities, including developing tools for innovators; providing bespoke innovator support; developing educational offers; networking and partnership building; facilitating and encouraging public and patient engagement in innovation activities; and signposting to innovation resources. Numerous enablers emerged from the evaluation as being important for hub activities.

Hubs faced numerous challenges in their implementation and ongoing development and maturation. Early during implementation, hubs perceived their local systems to: lack a shared vision and have limited capabilities for innovation among wider staff in their healthcare systems; have insufficient funding and resources for piloting and implementing innovations; have ill-defined governance, business procedures, capacities and infrastructure for innovation; and lack processes for ensuring learning and development through evaluation of innovations. Additionally, over the course of their development and maturation, hubs faced challenges related to: limited time and resources to accomplish ambitious goals set by the programme; the need to balance a structured approach to hub processes while being flexible and responsive to local system needs; limited workforce capacity due to the small size of hubs and their reliance on in-kind

support from the system; issues with building relationships, stakeholder engagement, and defining roles and responsibilities; and other contextual factors, such as the COVID-19 pandemic, actual NHS spending that fell behind planned spending, and changes to Integrated Care System structures.

Implications: The evaluation provided a unique opportunity to observe what happens when a novel catalyst for innovation, in the form of an innovation hub, is introduced into an existing, complex innovation-implementation ecosystem. Key enablers were identified

that have practical value for staff within the NHS looking to build or further strengthen local innovation ecosystems that are more conducive to innovation adoption. The core functions of hubs (i.e. central coordination, information dissemination and catalysing partnerships) potentially reflect unidentified and/or unarticulated needs that existed prior to their establishment. Future efforts in building or strengthening innovation ecosystems should include these core functions as part of their overall strategy.



Executive summary

Context

The UK's National Health Service (NHS) has been under increasing pressure for more than a decade, struggling to keep pace with the demand for services and the ability to provide quality healthcare that is free at the point of use. Increasing pressures have their origins in population growth and the shifting needs of society, including an ageing population and the increased prevalence of chronic conditions and multimorbidity alongside the COVID-19 pandemic. Such factors have negatively impacted the healthcare workforce, leading to burnout, lower levels of productivity and, consequently, a shortage of qualified healthcare professionals, which have further reduced the supply of services and exacerbated challenges.

Innovation is widely seen to be an important part of how the NHS responds to the challenges that it faces. This requires not only the generation of relevant and appropriate innovations but also their adoption and

integration with the delivery and management of services. It is this latter challenge that is the focus of this report. Specifically, the NHS must become more adept at identifying and bringing into practice evidence-based healthcare innovations, including drugs, devices and diagnostics, as well as models of service delivery, that provide better value for money, whilst maintaining or improving service user safety, outcomes and experiences.

Within the context of needing to better understand and strengthen how the NHS brings innovations more readily to health and social care settings, in 2021 the Health Foundation launched the Adopting Innovation Programme. The objective of the programme was to create innovation hubs which would act as centres of expertise and support within and for provider organisations and their local health systems, to help people within the NHS become better adopters of innovation (Health Foundation 2021). As part of the programme, four innovation hubs across England were funded for two and a half years, located in

NHS organisations in Bradford and Craven, Cambridgeshire and Peterborough, Dorset, and Manchester. The remit of each innovation hub was to help to build knowledge, skills and confidence, create a culture more supportive of innovation, and to accelerate the adoption and spread of innovations in health and social care.

The Adopting Innovation Programme created a unique opportunity to observe what happens when a novel catalyst for innovation uptake is introduced into a local health system's innovation-implementation ecosystem. Local innovation-implementation ecosystems can be thought of as spatially co-located organisations and relationships that work together to open 'windows of opportunity' to adopt, scale and spread innovations¹ that are relevant to local needs and priorities (Granstrand & Holgersson 2020). The establishment of innovation hubs is an important development in advancing our collective understanding of how to bring innovations into practice more readily, closing the gap between what we know is required for the NHS to be more innovative and how to put this knowledge into practice.

Approach

RAND Europe's programme-level evaluation was conducted over a two-year period, in two phases: formative and summative. The aim of the formative phase, conducted between July 2022 and March 2023, was to understand the set-up and implementation of the hubs. The aims of the summative phase, conducted between October 2023 and June 2024, were to consider ongoing developments and added value, and evaluate learnings from the hubs during the later stages of the programme. The two phases of the evaluation were designed

to provide an integrated and coherent account of the impact of innovation hubs on their local innovation-implementation ecosystems. The overarching goals of the evaluation were to:

- Understand how hubs were established within their local healthcare settings, including the development of conditions, infrastructure, systems and partnerships;
- Examine hub activities and mechanisms related to building innovation adoption cultures, and supporting innovation adoption and spread;
- Examine the added value of the hubs within their local settings, as well as the added value of the Adopting Innovation Programme; and
- Identify transferable lessons for other local healthcare systems across the UK to build cultures that are more conducive to the accelerated adoption and spread of innovations.

Both the formative and summative phases included document review, surveys and stakeholder interviews.

Document review: We reviewed progress reports, surveys and other documentation from the four innovation hubs, the local evaluation teams, the Health Foundation and the Innovation Unit (IU). Any gaps we observed were examined in follow-up interviews with stakeholders.

Surveys: We conducted three surveys, comprising both quantitative and qualitative questions. The first was sent to the four hub teams to understand their approach to adopting innovation (July–August 2022). The second survey was conducted as a partner-mapping exercise, comprising questions regarding the frequency, relevance and nature

¹ Adoption, scale and spread are part of the implementation process, where 'adoption' refers to the initial implementation in a given place within a system, 'scale' refers to the increasing the level of implementation in a given place, and 'spread' refers to the implementation (adoption) in additional places within the system.

of interactions between the innovation hubs and each of their partner organisations to date (January–February 2023). This survey was sent to the hub teams and partner organisations identified by the hubs. The third survey was sent to each of the four hubs as a follow-up exercise to understand each hub's approach to adopting innovation during this later period (November 2023–January 2024).

Stakeholder interviews: We conducted semi-structured virtual interviews with selected individuals from each of the hubs (e.g. hub leads) and other wider programme stakeholders. For the formative phase of the evaluation, we conducted 19 interviews with 20 individuals. For the summative phase, we conducted 20 interviews with 21 individuals: seven interviews with the hubs, four interviews with local evaluator teams, six interviews with hub partner representatives, two interviews with the Health Foundation and one interview with two individuals from the IU.

Data collected through these activities were cross-analysed and synthesised to address the aims and goals listed above. Data collection and analysis was facilitated by the Consolidated Framework for Implementation Research (CFIR) (Damschroder et al. 2009). In the following sections, we describe the key findings as they are presented in each chapter.

Evaluation findings

Hub journeys: multiple pathways to strengthening innovation-implementation ecosystems

To encourage creative and locally relevant approaches, the hubs were required to identify ways in which they could best contribute to meeting the needs and priorities of their local

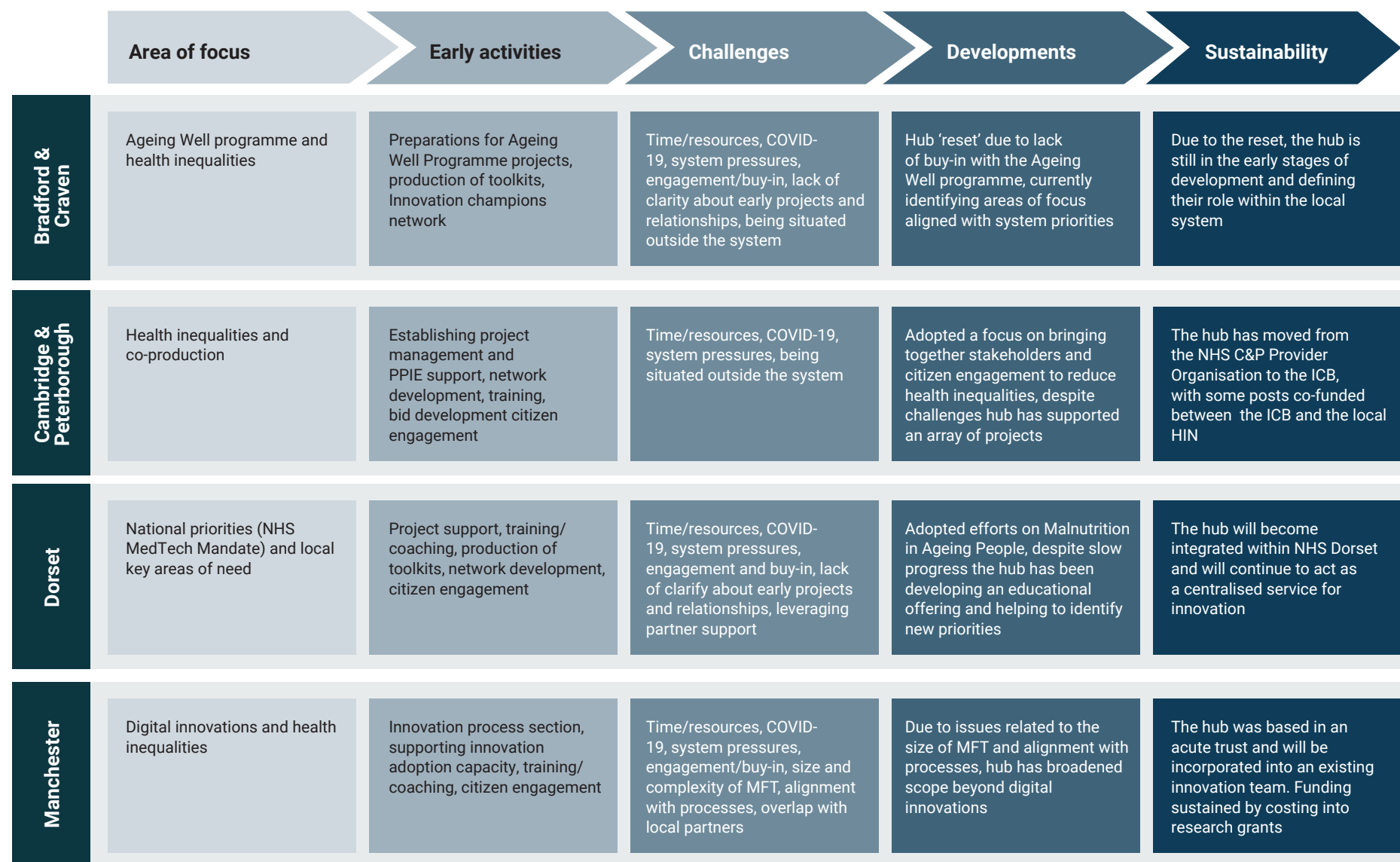
systems, each of which had distinct innovation-implementation ecosystems, with pre-existing cultures and mechanisms around innovation uptake. This presented both opportunities and challenges for hubs, requiring them to respond and adapt to their local environments while successfully providing added value to a culture where innovation adoption and spread was part of 'business as usual'. On the one hand, the hubs did not start from a blank slate; they had existing resources to build on and draw from. On the other hand, however, as hubs began to establish themselves, some environments were more rigid and less conducive to change, and concerns about overlapping or competing roles and responsibilities around innovation arose.

Hubs each selected different areas of focus, reflecting in part local needs and priorities.

These areas included ageing (Bradford and Craven), health inequalities and co-production (Cambridgeshire and Peterborough), national priorities (NHS MedTech Mandate) and local areas of need (Dorset), and digital innovations (Manchester).

Despite these differences in focus, in the early phases of implementation, all hubs engaged with selected partner organisations and stressed the importance of partnerships and co-production as well as patient and public involvement and engagement (PPIE) in identifying innovation priority areas. Hubs were also engaged in, or planned to engage in, wider activities to support adoption, including network development, staff and citizen engagement, and resource development. Figure ES1 illustrates hub pathways, including their activities, challenges, developments and plans for sustainability. More details on hub journeys can be found in Annex A.

Figure ES1. Hub pathways



Note: C&P, Cambridgeshire and Peterborough; HIN, Health Innovation Networks; ICS, Integrated Care System; PPIE, patient and public involvement and engagement; MFT, Manchester Foundation Trust.

Challenges

During the early stages of implementation, hubs perceived their local systems to have several challenges related to innovation adoption. These included lack of:



A shared vision and capabilities for innovation among wider healthcare staff.



Funding and resources for piloting and implementing innovations.



Defined governance business procedures, capacities and infrastructure for innovation.



Processes for ensuring learning and development through evaluation of innovations.

Over time, these factors, as well as additional challenges faced during the development and maturation of the hubs, hindered progress within the original time frame and made it difficult for them to become firmly established in the way that they may have expected. These additional challenges in the development and maturation of hubs related to:



Limited time to accomplish ambitious goals set by the Adopting Innovation Programme.



The need to balance a structured approach to hub processes with being flexible and responsive to local system needs.



Limited workforce capacity due to the small size of hubs and their reliance on in-kind support from the system.



Building relationships, stakeholder engagement, and defining roles and responsibilities.



Other contextual factors, such as the COVID-19 pandemic, actual NHS spending falling behind planned spending, and changes to ICS structures.

Creating the conditions and mechanisms for innovation adoption

Hubs have engaged in different activities to create the conditions and mechanisms for innovation adoption. For example, some hubs emphasised learning and education around innovation, whereas others focused on project management support or providing bespoke end-to-end support for specific innovation projects following activities to identify local need in their contexts. Nevertheless, there were some common activities across hubs. Specifically, all were engaged in signposting individuals involved in innovation adoption to relevant stakeholders and to innovation resources, and they were all involved in convening partners for innovation across their respective systems.

Key hub activities included:



Developing tools to support innovators in their local systems, including frameworks, benefit realisation tools and checklist criteria for evaluation of innovations.



Providing bespoke innovator support, including project management support throughout the course of innovation adoption and innovation evaluation.



Developing an educational offer to support the creation of local skills and communities of practice around innovation.



Networking and partnership building to connect local innovators to relevant stakeholders.



Facilitating and encouraging patient and public engagement in the prioritisation, selection and at times the development of innovations.



Signposting stakeholders within and across their local systems to innovation resources and guidance and directing innovators to relevant stakeholders and organisations.

Through the evaluation, 12 enablers emerged as supporting the hubs in carrying out their activities and helping build a culture that is conducive to innovation adoption. We mapped these enablers to the six principles of adoption and spread of innovation, as developed by the Health Foundation (in collaboration with the Care Quality Commission, NHS England, NHS Improvement and other organisations) (Horton et al. 2018), and the domain levels of the Consolidated Framework for Implementation Research (CFIR) (Figure ES2). In our view, the six principles provide guidance on 'what' is needed to support innovation adoption and spread, whereas the enablers provide guidance on the 'how' to support adoption and spread. Thus, we consider the enablers to be complementary to and build on the six principles. These enablers have practical value for staff within the NHS looking to build, or further strengthen, local innovation-implementation ecosystems that are more conducive to innovation adoption.

Adding value to complex innovation-implementation ecosystems

Over time, hubs have necessarily had to develop their own unique offers, which often required changing ways of working and areas of focus. The six abovementioned key hub activities can be organised into three core functions, which relates to their unique offer (and added value) and potentially represent unidentified and/or unarticulated needs prior to the establishment of the hubs that could better support and strengthen existing innovation-implementation ecosystems:



Providing central coordination of innovation activities and serving as a resource for innovation in their local system.



Disseminating information and raising awareness about innovation towards the goal of shifting the current innovation culture.



Catalysing partnerships by connecting and convening key players involved in innovation activities.

The Adopting Innovation Programme brought value to the hubs. This was achieved through:



The funding from the Health Foundation allowed for the hubs to conduct focused work around innovation, including the ability to be creative in their work and add value in the following ways: strengthening central coordination; contributing to learning, culture change and influence; and catalysing partnerships.

Figure ES2. Mapping of key enablers that support a culture conducive to innovation adoption to the six principles of innovation adoption and spread, as well as the Consolidated Framework for Implementation Research domain levels

		6 Principles of Innovation Adoption & Spread					
		Develop a culture where innovation can happen	(2) Develop and deploy innovations with the people who will use them	(3) Support your people	(4) Adopt the best ideas and share your learnings	(5) Focus on outcomes and impacts	(6) Be flexible in managing change
Consolidated Framework for Implementation Research	Individual level	Serve as a conduit to build a shared goal of innovation adoption		Bring together the right expertise Build capacity to support the desired scope and scale of innovation projects			
	Process level		Co-produce with end-users		Use a systematic approach to selecting innovations	Develop suitable metrics	
	Local level	Align with local healthcare system needs and priorities Establish a collective vision and purpose for innovation adoption			Build supportive partnerships Involve partner organisations throughout the innovation process		
	System level	Obtain support from system leadership					Be aware of operational and wider system challenges



The Innovation Unit, as a learning partner, provided support for hub activities by engaging with hubs in one-on-one support and cross-hub peer-to-peer knowledge exchange.



Local evaluation teams provided feedback in terms of 'real-time' insights that helped hubs to iterate and change course as needed.

Key insights from the evaluation

- ▶ Hubs established themselves within local healthcare settings each of which had complex innovation-implementation ecosystems, including distinct cultures and mechanisms that, to varying degrees, already supported innovation adoption. Through their development and maturation, and via adaptation to myriad challenges, the hubs identified their added value and built a case for sustainability by becoming absorbed into the local system.
- ▶ Each hub started from a different place but converged towards integrating more closely with local systems and providing a unique offer in terms of three core functions: central coordination, information dissemination and catalysing partnerships. These functions potentially represent unidentified and/or unarticulated needs to better support the existing innovation-implementation ecosystem.
- ▶ All hubs tended to select from a similar suite of activities (as detailed in the key hub activities box above). These included developing tools for innovators; bespoke innovator support; educational offerings (e.g. staff training, webinars, upskilling staff and innovators); relationship building; patient and public engagement; and signposting to resources. It is possible that these activities were selected because

of their 'fit' with what was practical and acceptable, building on previous experiences rather than being an optimal means to strengthen the adoption of relevant and proven innovations.

- ▶ Whilst one of the original goals of the hubs was to promote the accelerated adoption of innovation, this was not specifically achieved during the timescale of this evaluation, as the hubs were required to spend more time developing themselves, identifying their offer and added value, and developing plans for sustainability.
- ▶ The evaluation provided a unique opportunity to observe what happens when a novel catalyst for innovation, in the form of an innovation hub, is introduced into an existing, complex innovation-implementation ecosystem. From this, we have identified numerous enablers to promote and support innovation adoption (see Figure ES2).

Lessons learnt

- ▶ Complex innovation-implementation ecosystems can be navigated by stakeholders willing to engage in strengthening the system, using creative and flexible approaches; the evidence from this programme would lead us to reject a counsel of despair that 'nothing works'.
- ▶ For innovation-implementation ecosystems to operate successfully, there must be a means to coordinate, inform and convene the work of individuals, groups and organisations, as represented by the three, identified core functions of the hubs.
- ▶ The innovation hub model may be one way of achieving the abovementioned coordinating, informing and convening functions, but other models could potentially fulfil these functions.

Figure ES3. Skills and capacities required for leading and navigating innovation-implementation ecosystems



- ▶ While the ICS is a natural place for the functions of hubs to sit, it is unclear whether and how the ICS, as currently constituted, will have sufficient capacity to support this.
- ▶ Evidence about how local innovation-implementation ecosystems function, and how to strengthen them, is limited; the evidence presented in this report represents a partial but helpful step forward.
- ▶ If we are to measure, see and understand the impact of hubs (or similar organisations), they need to be funded and evaluated over substantially longer periods of time to allow for set-up and impacts to be observed.

What do innovation-implementation ecosystem leaders need to know?

Leading and navigating innovation-implementation ecosystems requires skills and

capacities which we have combined under the acronym BRASS: Behaviours, Relationships, Actions, Sustainability and Systems thinking (Figure ES3).

Recommendations

For individuals involved in local innovation adoption and spread:

- ▶ Include the core functions of central coordination, information dissemination and catalysing partnerships as part of an overall strategy to build or strengthen innovation ecosystems.
- ▶ Identify and map individuals, teams and organisations within the local ICS that are involved in innovation.
- ▶ Identify current barriers or gaps to innovation, adoption and spread and agree to these with stakeholders.
- ▶ Develop a compelling case for a specific 'innovation offer' that could better support innovation adoption in your local system.

- ▶ Align goals and objectives of innovation offers to system priorities, connecting the dots between what is important to frontline staff and senior leadership to facilitate innovation activities.
- ▶ Obtain, early in the process, organisational support and leadership endorsement and involvement to ensure there is support for innovation activities.
- ▶ Make sure that your innovation offers, including processes and activities, are co-produced with a range of stakeholders, including innovation end-users, system leadership, partner organisations and members of the public.

For national policy makers:

- ▶ Leverage the establishment of ICSs to inform policies that support local innovation-implementation ecosystems, which in turn can help to deliver on national priorities for innovation uptake and spread

and improve health and social care outcomes.

For evaluators and researchers:

- ▶ Future innovation research should prioritise understanding how local innovation adoption systems work.
- ▶ Evaluations should be embedded with implementing teams to strengthen relevance, learning and an understanding of how value is added (or not).
- ▶ When evaluating multiple sites, local data should include some datasets used across each site to support comparison and strengthen learning. This should include a systematic basis for describing local context.

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Chapter 1. Context

1.1. Innovation matters: an urgent need

The UK's National Health Service (NHS) has been under increasing pressure for more than a decade, struggling to keep pace with the demand for services and the ability to provide quality healthcare that is free at the point of use. These pressures have been identified by the British Medical Association as applying to the whole of the UK and across most services within the NHS (British Medical Association 2024). They have their origins in population growth and the shifting needs of society, including an ageing population and the increased prevalence of chronic conditions and multimorbidity. The COVID-19 crisis has worsened these pressures, but most commentators emphasise that even in the absence of COVID-19 the situation would be critical (Horton 2023) and the NHS itself recognises the severity of the pressures it faces (NHS England 2024). Such factors, in

addition to stagnating wages, have negatively impacted the healthcare workforce, leading to burnout, lower levels of productivity and, consequently, a shortage of qualified healthcare professionals (Dixon-Woods et al. 2024), which have further reduced the supply of services and exacerbated challenges. In short, the health system in the UK that was envisaged in the aftermath of the Second World War was designed to serve a very different population with different needs, and with very different technologies and practices, than the one that exists today.

Whilst UK health spending since 2019 has increased less than was planned and below the long-term average rate (Health Foundation 2024), few would suggest that money alone is sufficient to address the pressures facing the NHS. Indeed, at the time of writing, it appears unlikely that significant increases in spending on the NHS will materialise in the near future (Stoy et al. 2024).

Innovation is widely seen to be an important part of how the NHS responds to the challenges that it faces. This requires not only the generation of relevant and appropriate innovations but also their adoption and integration with the delivery and management of services. It is the latter challenge that is the focus of this report. Specifically, the NHS must become more adept at identifying and bringing into practice evidence-based healthcare innovations, including drugs, devices and diagnostics, as well as models of service delivery, that provide better value for money, whilst maintaining or improving service user safety, outcomes and experiences.

Given this importance, understanding how the NHS can more readily implement proven innovations has unsurprisingly been the focus of much attention in recent years. Reports by the Nuffield Trust (Castle-Clarke et al. 2017), the Health Foundation (Horton et al. 2018) and RAND Europe (Marjanovic et al. 2020) have highlighted key barriers to innovation adoption and have discussed the capacities required to strengthen the likelihood that proven innovations can be adopted, spread and scaled up. Whilst more is known now than a decade ago about the importance of innovation and the ingredients for success, a fundamental gap remains in terms of what is known to be necessary for the NHS to be more innovative and how to put this knowledge into practice.

1.2. Minding the innovation-adoption gap: the Adopting Innovation Programme

Within the context of needing to better understand and strengthen the ability of the

NHS to bring innovations more readily to health and social care settings, in 2021 the Health Foundation launched the Adopting Innovation Programme. The objective of the programme was to build and create innovation hubs which would act as centres of expertise and support within and for provider organisations and their local health system to help people within the NHS become better adopters of innovation (Health Foundation 2021). As part of the programme, four 'innovation hubs' across England were funded for two and a half years, located in NHS organisations from Bradford and Craven, Cambridge and Peterborough, Dorset, and Manchester. These organisations were selected from a pool of applicants based on their regional diversity, demonstrated commitment to local adoption of innovation, understanding of their local context, and hub aspirations. The remit of each innovation hub was to help to build knowledge, skills and confidence and create a culture more supportive of innovation and to accelerate the adoption and spread of innovations in health and social care.

The Health Foundation was not prescriptive in its requirements for innovation areas of focus, or how hubs should achieve their remit; however, it did expect that each hub would partner with other local organisations, such as Health Innovation Networks (HINs),² universities, and voluntary, community and social enterprise organisations (VCSEs), drawing on their local resources and expertise. As part of the Adopting Innovation Programme, the Health Foundation appointed the Innovation Unit (IU)³ as an external learning partner. Throughout the programme, the IU offered bespoke capacity building and learning support, in the form of one-to-one

2 Formerly Academic Health Science Networks (AHSNs).

3 The Innovation Unit (IU) is a not-for-profit organisation, whose mission is to grow and scale innovations that deliver long-term impact. For more information see: <https://www.innovationunit.org/> (As of 4 November 2024).

hub coaching and cross-hub peer-to-peer engagement to facilitate knowledge exchange. Each hub also appointed a local evaluator to monitor progress and measure local impact.

The Adopting Innovation Programme created a unique opportunity to observe what happens when a novel catalyst for innovation is introduced into a local health system's innovation-implementation ecosystem. Local innovation-implementation ecosystems can be thought of as spatially co-located organisations and relationships that work together to open 'windows of opportunity' to adopt, scale and spread innovations⁴ that are relevant to local needs and priorities (Granstrand & Holgersson 2020). The establishment of innovation hubs is an important development in advancing our collective understanding of how to bring innovations into practice more readily, closing the gap between what we know is required for the NHS to be more innovative and how to put this knowledge into practice.

1.3. About this report

The Health Foundation commissioned RAND Europe, a not-for-profit policy research organisation, to conduct an independent, programme-level evaluation across the four hubs and of the programme itself. This report describes findings from this evaluation.

The overarching goals of the evaluation were to:

- ▶ Understand how hubs were established within their local healthcare settings, including the development of conditions, infrastructure, systems and partnerships;
- ▶ Examine hub activities and mechanisms related to building innovation cultures and supporting innovation adoption and spread;
- ▶ Examine the added value of the hubs within their local settings, as well as the added value of the Adopting Innovation Programme; and
- ▶ Identify transferable lessons for other local healthcare systems across the UK to build cultures that are more conducive to innovation and support the accelerated adoption and spread of innovations.

In the next section of this report (**Section 2**), we provide a brief overview of the methodological approach to the evaluation. In the ensuing sections, we describe hub journeys from their inception (**Section 3**); the activities, challenges and enablers to fulfilling their remit (**Section 4**); and the value that they have added to their local innovation-implementation ecosystems, as well as the value of the Adopting Innovation Programme itself in supporting the remit of the hubs (**Section 5**). Finally, we conclude with a summary of key insights, lessons learnt and recommendations for health system leaders, researchers and policy makers (**Section 6**).

This report summarises a large body of work that was conducted over a two-year period and is intended for a broad audience, from health and social care practitioners, NHS managers and leaders to policy makers and the general public. It has been written and structured with this in mind.

⁴ Adoption, scale and spread are part of the implementation process, where 'adoption' refers to the initial implementation in a given place within a system, 'scale' refers to the increasing the level of implementation in a given place, and 'spread' refers to the implementation (adoption) in additional places within the system.



Chapter 2. Approach

2.1. Overview of approach and methods

The programme-level evaluation was conducted over a two-year period, in two phases: formative and summative. The aim of the formative phase, conducted between July 2022 and March 2023, was to understand the set-up and implementation of the hubs. The aims of the summative phase, conducted between October 2023 and June 2024, were to

consider ongoing developments, added value and evaluate learnings from the hubs during the later stages of the programme. The two phases of the evaluation were designed to provide an integrated and coherent account of the impact of innovation hubs on their local innovation-implementation ecosystems.

Each phase included document review, surveys and stakeholder interviews. We describe these activities in detail below.



Document review: We reviewed and extracted progress reports, surveys and other documentation from the four innovation hubs, the local evaluation teams, the Health Foundation, and the IU. Any gaps we observed were examined in follow-up interviews with stakeholders.



Surveys: We conducted three surveys. The first, as part of the formative evaluation, was conducted between July and August 2022, and was sent to each of the four hub teams as a learning exercise to understand their approach to adopting innovation. The second survey, also part of the formative phase, was conducted between January and February 2023 as a partner-mapping exercise, comprising questions regarding the frequency, relevance and nature of interactions between the innovation hubs and each of their partner organisations to date. This survey was sent to the hub teams; an adapted, shorter version, only including questions directly related to the associated hub, was also shared with named partner organisations. The third survey, as part of the summative evaluation, was sent to each of the four hubs between November 2023 and January 2024 as a follow-up exercise to understand each hub's approach to adopting innovation during this later period. The survey covered examples and approaches to innovation selection, other activities the hubs are conducting, alignment with our identified enablers, and partnerships.



Stakeholder interviews: We conducted semi-structured virtual interviews with selected individuals from each of the hubs (e.g. hub leads) and other wider programme stakeholders. For the formative phase of the evaluation, we conducted 19 interviews with 20 individuals: nine interviews with the hubs, four interviews with local evaluator teams, three interviews with hub partner representatives, two interviews with the Health Foundation, and one interview with the IU (with two individuals). These initial interviews were conducted between September 2022 and February 2023. For the summative phase of the evaluation, we conducted 20 interviews with 21 individuals: seven interviews with the hubs, four interviews with local evaluator teams, six interviews with hub partner representatives, two interviews with the Health Foundation and one interview with two individuals from the IU. Interviews were conducted between February and April 2024. Where possible, we interviewed the same individuals at both stages of the evaluation.

Data collection and analysis was facilitated by the Consolidated Framework for Implementation Research (CFIR), which considers innovations in terms of 'what works, where and why across multiple contexts' (Damschroder et al. 2022). All data were cross-analysed and synthesised to address

the abovementioned aims of the evaluation. We also sought to apply a realist perspective in our conclusions to – at least provisionally – assess what works in what contexts based on findings on the hubs and the Adopting Innovation programme.

Throughout this report, we refer to the source of the findings as follows: documents are referred to by the hub name and year (e.g. Manchester Hub 2023); survey data are referred to as 'Survey data'; and interviews are denoted as 'Int' followed by a unique interviewee number to preserve the anonymity of each participant (e.g. Int_01). Because we often interviewed the same individuals at the time of the formative and summative phases, these individuals have the same interviewee code throughout, where necessary. Where identification may have been possible, we have redacted the interview number to ensure anonymity.

2.2. Ethics

This evaluation was classified as a 'service evaluation' by the UK's Health Research Authority. Local R&D offices within the NHS Trust of each hub were contacted to inform

them that this evaluation was taking place, which led to registration or recognition of project activities.⁵

2.3. Limitations

Data for this evaluation relied upon qualitative information representing the views of a small number of individuals involved in the Adopting Innovation Programme – members of hub teams, partner organisations, the Health Foundation and the IU. Their views may not be representative of broader views within their local systems (or the NHS at large) on what is needed to successfully support innovation adoption and spread. Furthermore, through this evaluation we cannot determine whether hub activities are causal mechanisms for supporting innovation adoption and spread, as we do not have a control group for comparison.

5 While some local R&D offices formally registered the project as a Service Evaluation, in other settings approval by the R&D office was not required for projects recognised as Service Evaluations.



Chapter 3. Hub journeys: multiple pathways to strengthening innovation-implementation ecosystems

3.1. Introduction

The Health Foundation was intentionally not prescriptive about how the hubs should be established, who they should partner with, their activities, or their substantive areas of focus. Rather, to encourage creative and locally relevant approaches, the hubs were required to identify ways in which they could best contribute to meeting the needs and priorities of local systems, each of which had distinct innovation-implementation ecosystems, with pre-existing cultures and mechanisms around innovation. This presented both opportunities and challenges for hubs, requiring them to respond and adapt to their local environments

while attempting to create a culture where innovation adoption and spread was part of 'business as usual'. On the one hand, the hubs did not start from a blank slate; they had resources to build on and draw from. On the other hand, however, as hubs began to establish themselves, some environments were more rigid and less conducive to change and concerns about roles and responsibilities around innovation arose.

In the following sub-sections, we discuss the innovation-implementation ecosystems prior to hub inception (Section 3.2) and then the areas of focus, early activities of each hub, their challenges, and progress over time (Section 3.3).

3.2. Innovation-implementation ecosystems prior to hub inception

Hubs were established in local healthcare systems across England, each of which had existing, complex innovation-implementation ecosystems, albeit with varying degrees of coherence and strength. For example, whilst the processes for identifying innovations for adoption were present in these local systems (e.g. the 15 regional Health Innovation Networks, or HINs, across England), they differed in their approach to how innovations were selected or prioritised. Whilst leadership teams within local systems were considered to have a shared vision regarding the importance of innovation, there was uncertainty around whether this vision and the capabilities to embed innovation processes, including co-production, were shared by wider staff. Regarding their local innovation-implementation ecosystems, hub team members expressed concerns over an absence of systems or clarity for piloting and implementing innovations, which represented a gap that could be filled by the hubs.⁶ Furthermore, and with regard to the scope and ambitions of the proposed hubs, some had concerns about limited system funding and resources for implementing innovations; the need for more defined governance and business procedures; disconnected capacities and infrastructures; and the need for stronger processes to ensure learning and improvement through evaluation.⁷

3.3. Hub pathway overview

Hubs were not expected to replace existing parts of the innovation-implementation ecosystem. Rather, they were intended to either add to this system or to create new synergies across existing organisations and activities. Figure 1 below illustrates hub pathways from inception in 2021 to early 2024, when data were collected for the summative phase of the evaluation. The figure highlights the initial areas of focus and early activities, challenges to hub implementation and maturation, and later developments and plans for sustainability. We discuss each of these in turn below. More details on hub journeys can be found in Annex A.

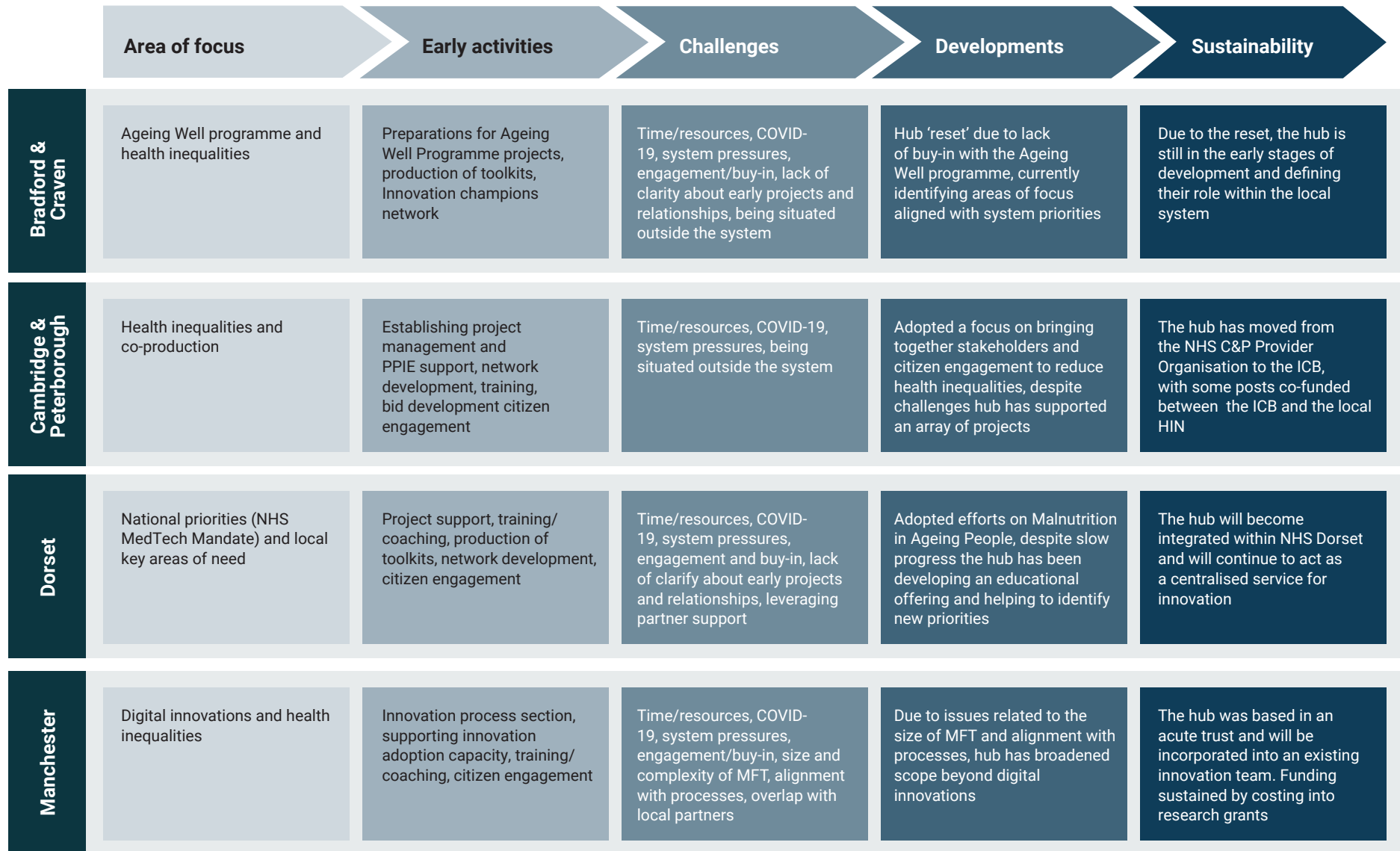
3.3.1. Inception, areas of focus and early activities

The four innovation hubs were established in 2021 in Bradford and Craven, Cambridgeshire and Peterborough, Dorset, and Manchester. Three hubs were initially hosted by their respective NHS Provider Organisation, whereas one (Manchester) was hosted by their NHS Foundation Trust. At their inception, hub teams were relatively small (about three individuals each with varying roles and commitment levels), remaining as such throughout their journeys. Each hub also appointed a hub leader, but for several of the hubs those in the leadership role changed over the course of the programme. Due to their small size, each hub necessarily drew on wider support from external partners and organisations. Benefit in kind was also a requirement of the grant, for hubs to utilise expertise within their local

6 Formative evaluation document review.

7 Formative evaluation interviews.

Figure 1. Hub pathways



Note: C&P, Cambridgeshire and Peterborough; HIN, Health Innovation Networks; ICS, Integrated Care System; PPIE, patient and public involvement and engagement; MFT, Manchester Foundation Trust.

systems. These partnerships took varying forms, some providing oversight and advice on steering groups or advisory programme groups, and others supporting specific projects or resource provision (e.g. of PPIE expertise and innovation frameworks, respectively).

Hubs each selected different areas of focus in response to local needs and priorities.

These were identified through existing programmes/mandates in place at local levels and engagement with wider stakeholders. These areas included ageing (Bradford and Craven), health inequalities and co-production (Cambridgeshire and Peterborough), national priorities (the NHS MedTech Mandate)⁸ and local priorities identified as key areas of need by partners (Dorset), and digital innovations (Manchester).

Despite these differences in focus, in the early phases of implementation, all hubs engaged with selected partner organisations and stressed the importance of partnerships and co-production as well as PPIE in identifying innovation priority areas. Hubs were also engaged in, or planned to engage in, wider activities to support adoption, including network development, staff and citizen engagement and resource development.

3.3.2. Challenges to hub implementation, development and maturation

During the early stages of implementation, hubs perceived their local systems to have

several challenges related to innovation adoption, as described above (Section 3.2). These included lack of:



A shared vision and capabilities for innovation among wider healthcare staff.



Funding and resources for piloting and implementing innovations.



Defined governance business procedures, capacities and infrastructure for innovation.



Processes for ensuring learning and development through evaluation of innovations.

Over time, these factors, as well as additional challenges faced during the development and maturation of the hubs, **hindered progress within the original time frame⁹ and made it difficult for them to become firmly established in the way that they may have expected.¹⁰** Several hubs referred to the need to realign expectations and goals, particularly with regard to what had initially been planned for versus what was possible in practice.¹¹

8 As of 4 November 2025: <https://www.england.nhs.uk/publication/medtech-funding-mandate-policy-guidance-for-nhs-commissioners-and-providers-of-nhs-funded-care/>

9 Document review; Int_10, Int_11, Int_13, Int_15.

10 Int_7, Int_5, Int_11, Int_13, Int_15.

11 Int_10, Int_11, Int_12, Int_15.

Additional challenges in the development and maturation of hubs related to:



Limited time to accomplish ambitious goals set by the Adopting Innovation Programme.



The need to balance a structured approach to hub processes with being flexible and responsive to local system needs.



Limited workforce capacity due to the small size of hubs and their reliance on in-kind support from the system.



Building relationships, stakeholder engagement, and defining roles and responsibilities.



Other contextual factors, such as the COVID-19 pandemic, actual NHS spending falling behind planned spending, and changes to ICS structures.

We describe each of these in more detail below.

3.3.3. Time and resources

The Adopting Innovation Programme was ambitious in scope, considering its relatively short time frame and limited funding.¹² The initial funding was intended to last two and a half years, and while some received a no-cost extension, this was still a short period to set up an organisation and have significant impact in a highly complex innovation-implementation ecosystem. A primary

challenge for many hubs during their set-up and development was determining their position within the system. Challenges included defining the problem(s) they would seek to address and identifying the hub's role in their local systems. Hubs also had to establish a level of shared commitment from partners and seek support for 'disruptive work' when working differently from others in their system, for example when testing new processes.

This recognition of a need for more time is emphasised by hub sustainability plans which indicate how each plans to evolve and develop into the future, building on lessons learned in the programme and ultimately seeking to deliver on the aim of supporting the adoption of innovation.¹³

3.3.4. Balancing structure, flexibility and responsiveness

Striking a balance between having a structured approach to hub processes, including a clear vision and framework, whilst remaining flexible and responsive to system needs, was also a challenge. Hubs are a small part of a large system and their contribution to that system will always be mediated by the organisations and processes it sits amongst. Therefore, they need to both protect their particular contribution and respond to the needs of others in their environment. Whilst some hubs felt that a clear vision and framework had helped them succeed,¹⁴ others felt that sticking too rigidly to a goal could alienate others in the system, ultimately to the detriment of their hub.¹⁵ Thus, it was important to remain flexible and responsive to the needs of the local system to ensure alignment with wider

12 Int_01, Int_03, Int_04, Int_19.

13 Int_06; Dorset Hub, 2023; Manchester Hub, 2023; Innovation Unit, 2023.

14 Int_11.

15 Int_10.

priorities and others working in the system.¹⁶ Most likely, this is a feature of working to effect change in any complex system, and the skillset required might be different from leading more hierarchically managed change.

3.3.5. Workforce capacity and skills

Ways of navigating complex innovation-implementation ecosystems and small team sizes were issues for the hubs,¹⁷ which made them dependent on other individuals and organisations within the local systems to effect change and drive momentum. Even where those individuals outside the hub leadership were willing to commit time, capacity issues and system pressures may have prevented them from being able to commit sufficient time on a consistent basis.¹⁸

Many of the hubs struggled with hiring and retaining core team members. From time to time, hubs were understaffed, reducing their capacity and, therefore, the amount of work the team could deliver.¹⁹ This often resulted in an over-reliance on certain individuals pushing the hubs forward. This proved to be problematic when people moved on or became ill.²⁰ The capabilities and skills of individuals within the hubs, such as the ability to navigate across complex systems and engage with stakeholders, were also described as having the potential to be either a barrier or driver to success and something that needs to be considered when staffing teams.²¹

3.3.6. Building relationships, stakeholder engagement, and defining roles and responsibilities

Challenges related to relationship building included the time it takes to build relationships and foster meaningful partnerships, alongside the ability to convene the right people.²² In the context of the ongoing challenges facing the NHS and aforementioned workforce capacity issues, small hub teams would need to be able to effectively engage other networks and teams in a complex and ever-changing environment. This would require skills and capabilities which were not always embedded within these small teams from the beginning.²³

Partnerships and relationships can also be challenging when there is perception of threat or duplication of efforts. As mentioned above, hubs were established within existing innovation-implementation ecosystems that had organisations and activities with aims that may have overlapped with those of the hubs. Some hubs experienced tensions and contentious relationships within their systems, due to perceived threats to institutional interests, and others experienced a lack of engagement from partners who initially committed to being involved but disengaged as other pressures and priorities became apparent.²⁴ One example of this perceived threat was seen to dissipate after engagement and support with the hub at the chief executive

16 Int_02, Int_04; survey data.

17 Int_04, Int_09, Int_13, Int_14, Int_18, Int_20.

18 Int_12.

19 Int_13.

20 Interview code removed to preserve anonymity.

21 Interview code removed to preserve anonymity.

22 Int_02, Int_07, Int_08, Int_10, Int_11, Int_12, Int_14, Int_15, Int_18.

23 Int_08, Int_11, Int_12, Int_18.

24 Int_03, Int_05.

level.²⁵ This highlights the importance of role clarity and ensuring buy-in across systems,²⁶ but also indicates the possible fragility of 'soft' power and networking.

Relationships between each hub and their ICS also proved challenging for some hubs, in both identifying and articulating their place within the system.²⁷ Whilst some hubs built strong relationships with HINs, ICSs and ICBs, others noted initial challenges and resistance from HINs who saw innovation hubs as a threat or competition.²⁸ Staff turnover was also noted as a barrier to maintaining relationships.²⁹

Despite core funding from the Adopting Innovation Programme, hubs often had to rely on in-kind support from partners for activities and delivery. There were experiences where this has been helpful and other instances where partners were less responsive or did not action in-kind support.³⁰

Having buy-in from partners was key to a successful partnership for the hubs in their work.³¹ Hubs have also needed to ensure that the right partners were engaged with the work,³² with one noting that some partners were initially dismissed due to perceived competition, where in reality these

organisations could be utilised to each partner's and the system's benefit.³³ There is also the additional challenge of keeping people engaged,³⁴ particularly when the hub is not necessarily a tangible thing.³⁵

3.3.7. Other contextual challenges

The hubs were established in 2021, coinciding with many external and unforeseen challenges, including the COVID-19 pandemic, when intermittent lockdowns were still in place, resulting in the need to navigate online working and changes in regulation.³⁶ Hubs were also established in the context of actual NHS spending that fell behind planned spending, staff strikes, and the development of ICS structures – a particularly uncertain and challenging time to be working in and alongside the healthcare sector.³⁷ Furthermore, stakeholders recognised that making a system innovation ready is a significant task in itself, especially in the case of the NHS, and transformation of any system takes time, especially when it requires building relationships and changing ingrained culture.³⁸

25 Int_03.
 26 Int_05, Int_14.
 27 Interview code removed to protect anonymity.
 28 Interview code removed to protect anonymity.
 29 Interview code removed to protect anonymity.
 30 Interview code removed to protect anonymity.
 31 Int_05, Int_08, Int_10, Int_18.
 32 Int_02, Int_10.
 33 Int_10.
 34 Int_02; Int_10; Int_16; Int_18.
 35 Int_12.
 36 Int_05, Int_15, Int_16.
 37 Int_11, Int_12, Int_14.
 38 Int_12.

3.3.8. Progress over time

Ongoing developments

Each hub has been on a journey since its establishment, requiring the navigation of unique challenges arising from the local context of their health systems. The Bradford and Craven hub undertook a hub reset following challenges around their initial focus, which had a lack of buy-in and engagement. Following this reset and restart, the hub has since made efforts to define a clearer role within the system and identify areas of need relating to inequalities. With a similar focus on inequalities, the Cambridgeshire and Peterborough hub also experienced challenges situating itself within the system but has had success working on inequalities and co-production through its Citizen Participation Group (a group established by the hub, largely comprised of public stakeholders from across Cambridgeshire and Peterborough with an interest in innovation). Although the Dorset hub made slow progress initially due to a lack of clarity about early projects and difficulty engaging partners, they have now supported a range of projects through their work, including related to the NHS MedTech mandate, and they have developed a substantial educational offer. Finally, the Manchester hub has broadened its mandate beyond digital innovation amidst difficulties working in a complex system of hospitals like Manchester University NHS

Foundation Trust (MFT) and the need for alignment with existing processes.

The following sections detail how the development and maturation of the hubs has been impacted by evolving partnerships and the need to consider long-term sustainability.

Evolving partnerships

As noted above, establishing relationships and meaningful partnerships has been a challenge faced by all the hubs, and has also been a key part of their journeys over the course of the programme, related to both their progress and also the work/activities they have been undertaking. As hubs have progressed, and in some cases changed course, partnerships have needed to adapt and evolve to reflect needs of the hub (and its aims/focus) and wider system needs.³⁹

The roles of partners have varied, and have included: support and guidance; leadership support; presence and participation on steering and/or programme groups who have provided guidance and oversight of hub work and activities; provision of methodologies; in-kind funding; and PPIE support.⁴⁰ Some partners were involved from the time of the original hub bid, with roles in driving priorities and themes.⁴¹ Partnerships have also varied in terms of the direction of support, with some being reciprocal and others being more one-sided with the partner supporting the hub.⁴²

Hub-level examples are provided below.

39 Int_06, Int_08, Int_10, Int_15, Int_16, Int_18.

40 Int_15, Int_16, Int_17, Int_18, Int_19, Int_20; survey data.

41 Int_17, Int_18, Int_20.

42 Int_12, Int_15, Int_16, Int_17, Int_20.

Evolving partnerships by hub

<p>Bradford and Craven</p>	<p>During the earlier stages of the programme, the hub was drawing on its partners for support on innovation implementation, adoption and selection. Partners were also intended to provide mentoring and support to the hub team. However, due to the changing nature of the hub and reset, relationships with partners changed and adapted. Partnerships are still being developed, with ongoing work to rebuild relationships, particularly where some organisations may have initially been dismissed due to misconceptions of competition or duplication. The hub is also looking to build their PPIE portfolio and is working to engage patient and community groups in its work going forward.</p>
<p>Cambridgeshire and Peterborough</p>	<p>Partnerships were initially used for specific projects, for example, joint scoping, funding opportunity collaboration and providing expertise to the hub. Partners were also intended to provide oversight and advice on, for example, delivery design and strategy. The hub also engaged with partners specific to co-production, including both the public and patients, alongside experienced innovation adopters. Partners have continued to have similar roles, and the hub has continued to put effort into forming strategic partnerships to facilitate local innovation projects. Here, the hub has also worked closely with local and system innovation partners to ensure strategic alignment, as exemplified in their plans for sustainability and next steps.</p>
<p>Dorset</p>	<p>The hub was drawing on partners for various aspects of support, including support for horizon scanning activities, innovation adoption advice, PPIE and governance at the start of the programme. Partners included local enterprise partnerships, universities to local councils, among others. Several partners were and have continued to be active members in the hub's programme group and evaluation working group. The hub also stressed its role as a 'facilitator', helping partners to identify, plan and implement innovative solutions to address their own needs. As the programme and hub progressed, partnerships adapted and changed, with some partners taking steps back due to other pressures across the system or changing views. Partners also highlighted the importance and potential value of having hubs placed within the system context, to support hub resilience to broader challenges.</p>
<p>Manchester</p>	<p>The hub initially drew on partners for evaluation and methodological advice, PPIE support, data science capacity and quality improvement. Partners were also intended to support project scoping and work with the hub to ensure wider strategic alignment across the Trust (e.g. to the wider digital strategy). Partnerships have largely stayed consistent at this hub, with the roles of partners continuing throughout the programme duration. PPIE work has progressed in particular, with a specific specialised partner to foster this collaboration and ensure further capacity.</p>

Plans for sustainability

All hubs have been considering their longer-term vision and strategy, and how to sustain themselves after the end of Health Foundation funding and support from the Adopting Innovation Programme. Considerations around proving the business case for innovation hubs and proving their value within the system have been central to discussions of sustainability.⁴³ A large part of the hubs' sustainability has also

centred around embedding themselves within their local system and the relationships that they established during the programme.⁴⁴ Whilst hubs have approached this differently, it has often involved building strong partnerships and networks across the system.⁴⁵ Some hubs have established themselves as business-as-usual and have become embedded into their systems.⁴⁶

Hub-level examples are described below.

Plans for sustainability

Bradford and Craven

Due to the reset, the hub has an extended timeline on its work in the programme, and as such it is less clear how it will be sustained after programme end. The hub is in the earlier stages of development and is still defining its role within the system.

Cambridgeshire and Peterborough

The hub will move into the ICB (including the current team) and continue its activities. It is this partnership working that will enable the sustainability of the hub activities and the buy-in that the hub had from clinical staff and NHS trusts. The hub is also working in an embedded way as part of the system, with some of their posts co-funded between the ICB and HIN.

Dorset

The hub is awaiting confirmation for its local priority project programme following the publication of the ICB 5-year forward plan. The hub is also assessing how its function will change within the ICS. Overall, the hub team intend to build on the work they have achieved through the programme. Following a 14-month negotiation, the hub will continue to act as a centralised service within NHS Dorset (where it was previously hosted by University Hospitals Dorset). Reflecting on the programme, stakeholders highlighted the importance and potential value of having hubs placed within the system context (i.e. within ICS or ICB), to support hub resilience to broader challenges.

Manchester

The hub has been assimilated into the provider organisation and is incorporating itself within the MFT innovation team (part of MFT's Research and Innovation team), and has sustained funding by costing itself into research grants. Its longer-term goals include continuing project management support within innovation and building a business case to secure a position for dedicated staff including a project manager and programme manager. Going forward, the hub also will not rule out non-digital projects in an effort to be more inclusive. The hub is also considering recruiting a clinical lead for innovation.

43 Int_06.

44 Int_06, Int_07.

45 Int_02, Int_08, Int_15.

46 Int_07.



Chapter 4. Creating the conditions and mechanisms for innovation adoption: activities and enablers

4.1. Introduction

Whilst the previous section focused on a high-level overview of hub journeys, from inception to sustainability, in this section we move to a discussion of specific activities that hubs have engaged in to create the conditions and mechanisms for innovation adoption.

Hubs have engaged in different activities to create the conditions and mechanisms for innovation adoption. Their foci are a consequence of their original proposals to the Health Foundation (which in all cases followed some local consultations) and adaptation to changing circumstances (as interpreted by the hub leadership and engaged partners). For example, some hubs emphasised learning and education around innovation, whereas others

focused on project management support or providing bespoke end-to-end support for specific innovation projects based on perceived local needs and priorities.⁴⁷ Nevertheless, there were some common activities across hubs. Specifically, all were engaged in signposting individuals involved in innovation to relevant stakeholders and to innovation resources, and they were all involved in convening partners for innovation across their respective systems. Hubs also all engaged with the Innovation Unit to support and guide their activities, with hub leads and teams meeting with colleagues from the Innovation Unit each month (or fortnightly where additional support or planning might have been needed).⁴⁸ Some key features of hub activities are described below.

47 Int_04, Int_07, Int_10.

48 Innovation Unit, 2023.

Key features of hub activities

Bradford and Craven	Due to their reset, the Bradford and Craven hub was still in the phase of understanding and defining its role within the system. However, facilitation support was one of its main functional roles.
Cambridgeshire and Peterborough	The hub took a leading role in co-production and engaging public and patient representatives in their work; they were further described as being 'invested in the system' in the way they conducted their activities, including work related to fundraising.
Dorset	The hub outlined several different workstreams with one being around education, which it is continuing to develop and grow.
Manchester	The hub focused on providing two types of support. Firstly, end-to-end innovation project management support, from scoping projects to piloting them, setting up evaluations, and providing the business case; secondly, wrap around services for projects as and when needed.

As part of our evaluation, several themes emerged in terms of hub activities:



Developing tools to support innovators in their local systems, including frameworks, benefit realisation tools and checklist criteria for evaluation of innovations.



Providing bespoke innovator support, including project management support throughout the course of innovation adoption and innovation evaluation.



Developing an educational offer to support the creation of local skills and communities of practice around innovation.



Networking and partnership building to connect local innovators to relevant stakeholders.



Facilitating and encouraging patient and public engagement in the prioritisation, selection and at times the development of innovations.



Signposting stakeholders within and across their local systems to innovation resources and guidance and directing innovators to relevant stakeholders and organisations.

In the following section we describe each of these thematic areas across the four hubs (Section 4.2). We then discuss key enablers related to their respective activities (Section 4.3).

4.2. Hub activities

4.2.1. Developing tools for innovators

Hubs have created and are continuing to develop a variety of tools to support their own staff and external stakeholders and innovators in their local systems. The Cambridgeshire and Peterborough hub is building an innovation framework and innovation portal which will serve as a guide to which it can refer stakeholders.⁴⁹ Dorset is developing benefits realisation tools and frameworks (to help understand and measure benefits of potential innovations), and a checklist to support potential innovations.⁵⁰ Manchester has a three-stage framework to support and prioritise projects, along with an online portal for staff inquiries.⁵¹ They use a set criterion to evaluate digital innovations, considering technical feasibility and patient/public engagement, and have checklists to assess innovation readiness.⁵² The Innovation Unit also provided support for the hubs with provision of tools and frameworks to support them in their plans.⁵³

4.2.2. Bespoke innovator support

Hubs have also been looking to provide support directly to innovators in various ways. For example, the Cambridgeshire and Peterborough hub has been working with key stakeholders

and innovations across its local system and building upon their work.⁵⁴ The hub has been offering support to innovation teams through bid development/funding and provision of resources, such as the NHS's Innovation for Health Inequalities Programme⁵⁵ and case study development for the implementation of digital remote monitoring, such as the KardiaMobile device (a smart device for recording of medical-grade electrocardiograms for patients with atrial fibrillation),⁵⁶ and Minuteful for Wound⁵⁷ (a smart device for managing wounds).⁵⁸

The Manchester hub is looking to provide support to innovators through its two key types of support noted above: end-to-end project management support and wrap-around support. For example, the hub plans to provide guidance to innovation teams for scoping projects, taking them through the hub's framework, and supporting innovation pilots.⁵⁹ This also includes working with teams to support evidence gathering for evaluation and for developing business cases.

For the Dorset hub, project management and benefits realisation is a large work stream.⁶⁰ This includes various activities, such as project management support and working directly with clinical teams in their local system to support, advise and upskill teams.⁶¹

49 Interview code removed to preserve anonymity.

50 Interview code removed to preserve anonymity.

51 Interview code removed to preserve anonymity.

52 Interview code removed to preserve anonymity.

53 Innovation Unit, 2023.

54 Interview code removed to preserve anonymity.

55 As of 4 November 2024: <https://www.england.nhs.uk/aac/what-we-do/innovation-for-healthcare-inequalities-programme/>

56 As of 4 November 2024: <https://store.alivecor.co.uk/products/kardiamobile>

57 As of 4 November 2024: <https://healthy.io/eu/services/wound/>

58 Cambridgeshire and Peterborough Hub, 2023; interview code removed to preserve anonymity; survey data.

59 Interview code removed to preserve anonymity.

60 Interview code removed to preserve anonymity.

61 Interview code removed to preserve anonymity.

4.2.3. Educational offering

Several hubs are developing an education offer as part of their work, with the aim of enhancing the capacity and ability of teams and local system stakeholders.⁶² This includes technical assistance and allocation of resources to enhance domain knowledge, skills and infrastructure within innovation projects.⁶³ For example, the Manchester hub supported the set-up of the MFT Digital Academy training, which aimed to develop and upskill the local workforce in terms of their digital skills.⁶⁴ The hub also has an Innovation Academy, an online platform which provides guidance documents around innovation for stakeholders.⁶⁵ The Cambridgeshire and Peterborough hub has hosted several learning events, including their Innovation Showcase Day, and has tried to develop the infrastructure to provide guidance on developing bids.⁶⁶ Reflecting on this, stakeholders highlighted the benefits of these events and that it would be valuable to see more regular and consistent education offers from the hubs, but that contextual factors (i.e. COVID-19) have hampered these efforts.⁶⁷ The Dorset hub ran several education offerings through their work and initiated a community of practice as part of their education programme to consider approaches to innovation and

information access.⁶⁸ Their education offering has been a core function of the hub, and there are plans to continue this development.⁶⁹

4.2.4. Networking and building partnerships

Another central function of the hubs has been networking and building partnerships to bridge local innovators with relevant stakeholders. Hubs have been working across their ICSs, exemplified through partnerships with HINs. Indeed, to some extent this was considered when the programme was designed, and during bid writing.⁷⁰ Hubs have also been fostering partnerships and connections to prevent siloed working,⁷¹ and one interviewee emphasised the importance of embracing all types of partners, even when doing similar things, as there can be mutual benefit.⁷² Furthermore, with Innovation Unit support, hubs have attended monthly peer coaching sessions and learning events which have provided additional opportunities for networking and making connections across hubs and wider partners.⁷³ The Innovation Unit has also supported and guided hubs with engagement and partnership working, where appropriate.⁷⁴

62 Int_04, Int_11, Int_13.

63 Int_11.

64 Manchester hub, 2023.

65 Interview code removed to preserve anonymity.

66 Two interview codes removed to preserve anonymity.

67 Interview code removed to preserve anonymity.

68 Interview code removed to preserve anonymity.

69 Interview code removed to preserve anonymity.

70 Int_06, Int_08.

71 Survey data.

72 Int_10.

73 Innovation Unit, 2023.

74 Innovation Unit, 2023.

The Cambridgeshire and Peterborough hub has demonstrated efforts to create strategic directions for local adopters of innovation, addressing the shortcomings for those who may have lacked networking knowledge and experience, by forming strategic partnerships to facilitate local innovation projects.⁷⁵

Several activities were implemented by hubs to engage and build new relationships with staff from stakeholder organisations. For example, the Dorset hub created a local innovation community on FutureNHS⁷⁶ to help innovation adopters and spreaders develop skills and knowledge and learn about best practices under the community of practice, with 208 members. The hub offered online webinars and events on various topics related to innovation adoption, such as lessons from the COVID-19 pandemic and explaining innovation complexities to organisations.⁷⁷ This hub also established partnerships and networks to connect stakeholders with the right services.⁷⁸

The Manchester hub collaborated closely with Health Innovation Manchester to develop its framework and resources. The hub was also on the committee for the Digilab launched at the Royal Manchester Children's Hospital. Staff also collaborated with other Trusts through local contacts and innovation networks, such as the Innovation Exchange.⁷⁹

Additionally, the Cambridgeshire and Peterborough hub collaborated with industry sectors and academia, including the local ICS, University of East Anglia, University of Cambridge and Anglia Ruskin University. These collaborations allowed the hub to share insights with different stakeholders, such as ICB executives and other innovation stakeholders.⁸⁰ The hub also highlighted that a clearer systematic innovation process was established as a result of hub activities and the engagement of stakeholders in the local system, for example through the development of decision trees and logic models for system-wide engagement in their innovation workshops.⁸¹

Strong partnerships were ultimately an important factor in achieving sustainability of hub activities, for example by engaging clinicians and other stakeholders in NHS trusts.⁸² Stakeholders noted the importance of the relational aspects of the hub, such as building a supportive culture and strong relationships across the system.⁸³ Some hubs also emphasised the importance of having a strong patient voice and PPIE and clinical buy-in (e.g. from a medical director). Hubs highlighted the importance of PPIE in influencing local innovation project selection, and that they should become part of the governance of the project navigation, such as the ICB Citizen Group from Cambridgeshire and Peterborough.⁸⁴

75 Interview code removed to preserve anonymity.

76 As of 4 November 2024: <https://www.england.nhs.uk/futurenhs-platform/>

77 Dorset hub, 2023.

78 Interview code removed to preserve anonymity.

79 Survey data.

80 Survey data.

81 Survey data.

82 Int_01, Int_06.

83 Int_06.

84 Interview code removed to preserve anonymity.

4.2.5. Patient and public engagement

Hubs have been involved in facilitating and encouraging patient and public engagement in the prioritisation, selection and at times the development of innovations. The Cambridge and Peterborough hub, for example, has focused on supporting local innovations and promoting citizen participation, especially through co-production.⁸⁵ For example, it engaged individuals with experience of personality disorder services to help design a support website.⁸⁶ The hub also looked to ensure that the Citizen Participation Group was engaged from the start and supported the selection of innovations.⁸⁷ The Manchester hub embedded their team, a local partner VOCAL,⁸⁸ and PPIE members into their work, for example looking at PPIE involvement in the governance stages of innovation adoption.⁸⁹ It offered training sections and workshops for capacity building in terms of PPIE to develop principles of patient and public involvement in innovation within Manchester.⁹⁰ The Dorset hub has also engaged with PPIE representatives as part of its work, with three members who are part of the NHS Dorset patient engagement group. This group meets regularly, and the PPIE members work with the hub.⁹¹ The Bradford District and Craven hub is also building its PPIE

portfolio and is working to engage patient and community groups in its work going forward.⁹² As part of its work as the learning support partner, the Innovation Unit has also worked with the hubs to develop their co-production and engagement offers, for example by supporting them to develop their plans and co-designing their 'vision' for engagement.⁹³

4.2.6. Signposting

All hubs, as part of their role, are signposting stakeholders within and across their local systems to innovation resources and guidance and directing innovators to relevant stakeholders and organisations to support uptake and spread. Innovation systems, and general local healthcare landscapes, are often complex and can be difficult to navigate.⁹⁴ As such, hubs were often providing a 'front door' for questions, liaising where needed with relevant stakeholders, and signposting resources.⁹⁵ Hubs also, in part, functioned to provide an overview of the health innovation space for stakeholders and internally.⁹⁶ The hubs were overall looking to increase awareness and seeking to become a focal point in their systems for innovation adoption.⁹⁷ For example, the Cambridgeshire and Peterborough hub described itself as a 'landing

85 Two interview codes removed to preserve anonymity.

86 Interview code removed to preserve anonymity.

87 Interview code removed to preserve anonymity.

88 As of 4 November 2024: <https://wearevocal.org/>

89 Interview code removed to preserve anonymity.

90 Interview code removed to preserve anonymity.

91 Interview code removed to preserve anonymity.

92 Interview code removed to preserve anonymity.

93 Innovation Unit, 2023.

94 Int_06.

95 Int_06, Int_08.

96 Int_10.

97 Int_06.

zone', where people could go to for advice, resources, support for bids and funding, and support to land projects within the local system.⁹⁸ Similarly, the Manchester hub described itself as a focal point for staff, and in future hope to also do so for patients and the population.⁹⁹ In Dorset, the team emphasised that a key role for the hub was connecting people to the right services and signposting resources and support.¹⁰⁰ The Bradford and Craven hub also described its function in signposting potential innovators to other stakeholders or innovators within the system.¹⁰¹

4.3. Enablers

As part of the formative phase of the evaluation, 12 enablers emerged as supporting the hubs in carrying out their activities and helping build a culture that is more conducive to innovation adoption. We mapped these enablers to the six principles for the successful adoption and spread of innovation, as developed by the Health Foundation (in collaboration with the Care Quality Commission, NHS England, NHS Improvement, and other organisations) (Horton et al. 2018) as well as the domain levels of the Consolidated Framework for Implementation

Research (CFIR) (Damschroder et al. 2009), where the **individual level** refers to the people involved in bringing innovations into practice; the **process level** refers to considerations for selecting and prioritising innovations, as well as the development of plans for implementation; the **local level** refers to the relationship between innovators and other stakeholders in the ICS involved in delivering innovations; and the **system level** refers to wider policies and other contextual factors. This mapping is presented in Figure 2. In our view, the six principles provide guidance on 'what' is needed to support innovation adoption, whereas the enablers provide guidance on the 'how' to support adoption. Thus, we consider the enablers to be complementary to and build on these six principles.

As part of the summative phase of evaluation, we sought to further explore these enablers by identifying if and how hubs were putting them into practice. Hub practices related to the 12 enablers are described below. **These enablers have practical value for staff within the NHS looking to build, or further strengthen, local innovation ecosystems that are more conducive to innovation adoption.**

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101 Interview code removed to preserve anonymity.

Figure 2. Mapping of key enablers that support a culture conducive to innovation adoption to the six principles of innovation adoption and spread, and the Consolidated Framework for Implementation Research domain levels

		6 Principles of Innovation Adoption & Spread					
		(1) Develop a culture where innovation can happen	(2) Develop and deploy innovations with the people who will use them	(3) Support your people	(4) Adopt the best ideas and share your learnings	(5) Focus on outcomes and impacts	(6) Be flexible in managing change
Consolidated Framework for Implementation Research	Individual level	Serve as a conduit to build a shared goal of innovation adoption		Bring together the right expertise Build capacity to support the desired scope and scale of innovation projects			
	Process level		Co-produce with end-users		Use a systematic approach to selecting innovations	Develop suitable metrics	
	Local level	Align with local healthcare system needs and priorities Establish a collective vision and purpose for innovation adoption			Build supportive partnerships Involve partner organisations throughout the innovation process		
	System level	Obtain support from system leadership					Be aware of operational and wider system challenges

Key enablers to strengthening innovation-implementation ecosystems

<p>1. Align with local healthcare system needs and priorities</p>	<p>Hubs are selecting innovation projects identified by areas of need by partners and they will focus their future work around agreed local plans.</p>
<p>2. Obtain support from system leadership</p>	<p>Hubs have worked to engage system leadership, for example through progress updates, reporting into system boards, workshop attendance, and presence on steering groups/panels and programme groups. This has been further supported where hubs have begun to become integrated and embedded in their systems, linking with existing identified priorities.</p>
<p>3. Establish a collective vision and purpose for innovation adoption and spread</p>	<p>Hubs have engaged with leadership in their local contexts and developed partnerships with relevant organisations. These organisations have often been involved in planning and advising hub activities. Hubs have presented to various stakeholders and organisations within their systems, for example through dissemination sessions and workshops, alongside sharing of resources on shared platforms. Some hubs have led training sessions, for example to foster a collective vision and shared understanding of innovation adoption. Hubs have also been co-developing innovation principles with partners, patient and public representatives, and wider partners to create a collective understanding across systems.</p>
<p>4. Serve as a conduit to build a shared goal of innovation adoption and spread</p>	<p>Hubs have been developing tools and resources to share within their systems and beyond. In addition, some hubs are offering drop-in sessions for innovation advice and support, alongside training sessions around innovation adoption. Hubs are working within their ICSs and existing strategies to bring together partners and ongoing activities. This includes representation on hub steering and/or programme groups, with representation from ICS leads, HINs/AHSNs, and beyond. Hubs are also beginning to serve as a local channel for innovation adoption programmes and innovators, as a centralised resource.</p>
<p>5. Co-produce with end users</p>	<p>Patient and public involvement, and co-production work, has been part of each of the hubs in varying ways. In some hubs, patient representatives have been involved in evaluating innovations and in the groundwork of the hub. For some hubs this still under development and in plans for their future work (for example PPIE engagement work on the selection of innovations and implementation). Aims for some hubs are that PPIE and co-production will become embedded and standard practice in innovation adoption going forward.</p>
<p>6. Bring together the right expertise</p>	<p>Hubs have aimed to bring teams together with the necessary expertise for the hub work. This includes hub teams themselves, and the partners they work with alongside steering groups and governance committees. Programme groups and core teams have aimed to contain a range of individuals to ensure diversity in skills, background and expertise.</p>

7. Build capacity to support the designed scope and scale of innovation projects	Hubs have sought to support people and build capacity through their partnerships (i.e. across different sectors and industries including health and social care, industry and academia). Groups put together by hubs, like steering committees and governance groups, have also intentionally involved a range of individuals.
8. Build supportive partnerships	Developing partnerships and convening stakeholders has been central to hub work and activities, ultimately enabling them in their work. Hubs have established partnerships across their local systems to support their activities. This includes support in selection and assessing innovations, developmental support for tools like innovation portals, and co-creating frameworks.
9. Use a systematic process to select innovations	Considerations for innovation selection processes were a central part of early hub work and have continued to be throughout the programme. Hubs are taking varying approaches to this, including horizon scanning approaches with local partners, developing innovation selection tools and checklists/frameworks, setting up online innovation portals to manage innovations, and a prioritisation checklist. The Innovation Unit has also supported hub teams in their work to develop innovation select processes, alongside how to understand and codify innovations.
10. Involve partner organisations throughout the innovation process	As mentioned above, partnerships have been central to the hubs and their work. Involving partner organisations throughout the process (i.e. through advisory roles or guidance or PPIE support) has enabled hubs to ensure they align to national and local priorities, supporting them to have a place within their wider system, and enabling their activities.
11. Develop suitable metrics	Across hubs, this has often been an area still under development, partly due to the time it takes to set up a hub and the timescale of the programme versus the time needed to implement and adopt innovations. Hubs are intending to use existing checklists and outcomes frameworks which are used in their local systems, supporting them to align with local processes and become embedded whilst also enabling them to measure impact (of the hub and the innovations selected).
12. Be aware of operational and wider system challenges	Hubs have been working with steering groups and local and system leadership to support work and monitor wider priorities and ongoing pressures. The hub teams often report into and work with wider groups, as such keeping informed on wider activities. Hubs have also needed to be flexible in their work following challenges in staffing, leadership changes, and ongoing wider contextual challenges (such as COVID-19). Furthermore, timelines have been adapted where needed and some hubs have 'reset' in order to reconsider their approach to supporting and delivering innovation adoption. Hubs have adapted their roles in their systems to meet local needs and priorities, for example updating frameworks to be more flexible and less rigid, alongside offering added services like training, providing resources, and offering innovation drop-in sessions to support their local systems.



Chapter 5. Adding value to complex innovation-implementation ecosystems

5.1. Introduction

As previously mentioned, the hubs have been established in local health systems with existing innovation-implementation ecosystems. At times, this presented challenges with regard to other individuals, teams or organisations with similar or overlapping roles (see Section 4 on Challenges). As a result, hubs have necessarily had to develop their own unique offers,¹⁰² which often required changing ways of working and areas of focus.

At the outset, it was expected that the hubs would bring value to their local health systems

by accelerating the adoption of innovation and helping to identify specific, proven innovations and getting them into practice more quickly; however, their value to date has been only indirectly related to bringing specific innovation projects into practice. Below, we describe how local hubs can bring value to local innovation-implementation ecosystems (Section 5.2) and provide evidence of specific functions that have added value to the local innovation-implementation ecosystem (Sections 5.3–5.5). We then discuss the added value of the Adopting Innovation Programme (Section 5.6) and, finally, the overall impact of the hubs on their local innovation ecosystems (Section 5.7).

5.2. What are local innovation-implementation ecosystems and how might hubs add value to them?

As mentioned earlier, local innovation-implementation ecosystems can be thought of as spatially co-located organisations and relationships that work together to open ‘windows of opportunity’ to adopt, scale and spread innovations that are relevant to local needs and priorities (Granstrand & Holgersson 2020). Their importance has often been underplayed in the literature.¹⁰³ Yet, despite important and valuable national programmes, schemes and incentives, decisions to adopt innovations are usually taken at the local level.

The analysis presented here suggests that such locally based decisions are shaped by the systems in which organisations operate. Hubs were quickly oriented towards working within and aiming to support local systems. The fact that their functions will likely continue – albeit in various ways – after funding is complete appears to support the idea that these functions are perceived to add value and, as such, potentially represent needs that were otherwise unidentified and/or unarticulated prior to the establishment of the hubs.

In Figure 3, we present our initial understanding, based on this evaluation, of what local innovation-adoption systems for healthcare include. We should stress that this is only a preliminary view based on a small sample of local systems and that further research is warranted. However, in our view, the hubs have added value by strengthening

local systems and helping actors within these systems to recognise their need to work together across these systems.

The activities performed by the hubs (see Section 4.2) can be organised into three core, interdependent functions, which relate to their unique offer (added value) and potentially represent unidentified and/or unarticulated needs prior to the establishment of the hubs that could better support and strengthen the existing innovation-implementation ecosystem:



Providing central coordination of innovation activities and serving as a resource for innovation in their local system.



Disseminating information and raising awareness about innovation towards the goal of shifting the current innovation culture.



Catalysing partnerships by connecting and convening key players involved in innovation activities.

To add value in this space, **it has also been important for the hubs (and their teams) to have system knowledge and awareness of local context.**¹⁰⁴ This has been particularly pertinent in the case of the hub leads, in terms of being able to access and network effectively across the system.¹⁰⁵ The hubs have needed to complement and fit in with partners and the wider system,¹⁰⁶ with some acting as an extension of other partners and the local

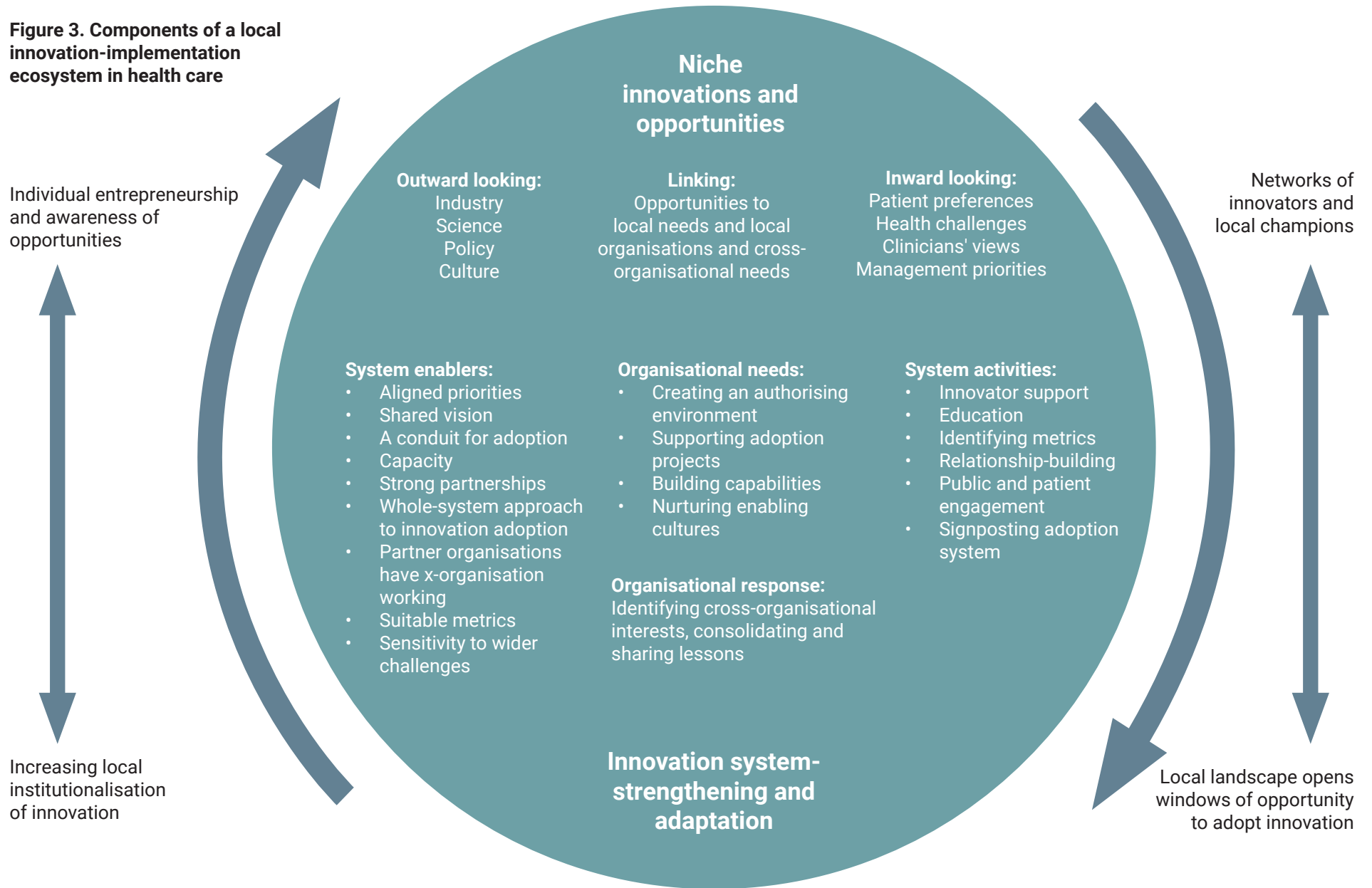
103 For example, a Google Scholar search for ‘local health innovation systems UK’ generates several million results but only a handful of these are about local or regional systems rather than national or global systems.

104 Int_06, Int_09, Int_12, Int_18.

105 Int_10, Int_18, Int_20; Cambridgeshire and Peterborough, 2023.

106 Int_02, Int_10.

Figure 3. Components of a local innovation-implementation ecosystem in health care



systems' goals and priorities.¹⁰⁷ Ensuring alignment to wider priorities has been a key factor around hubs' added value.¹⁰⁸ This, in part, is why some hubs are starting to become embedded in their systems and shifting their

roles. For multiple hubs there is now the potential for them to move further into their systems and become more embedded (e.g. into ICBs or the local ICS).¹⁰⁹

Partner organisation testimonials related to hubs' added value

Central coordination

'I think the convening element of it as well was obviously really, really, (...) beneficial. And I was shocked, actually, I can remember being in one of the sort of early meetings (...) and there was a group of probably 20 folks who were all working in the innovation space across the ecosystem. But many of them have never met, so it was really fascinating to see. (...) you just kind of think that was the power of [the hub] that, you know, because somebody that's got their full attention on it can kind of convene people in a neutral way' (Int_15)

Dissemination of information and awareness raising

'It seems to me that [the hub] has done a great job in making being innovative, visible and culturally acceptable and desired in the NHS (...) and it would seem to me that that was not that apparent in the beginning, which is why there was a need for [the hub]. So I think it has encouraged people to do more innovating and to be innovative of mind' (Int_16)

'The biggest contribution is around trying to raise the profile of innovation and [the hub] started to (...) train and educate people about the basics of implementation of innovation adoption. I think that's the key thing really is the training bit' (Int_18)

Catalysing partnerships

'It's also enabled us to be more joined up across organisations across this agenda, particular on the ground, so the programme came about at the same time as we landed quite a bit of money for our [own local] project. (...) It's like a big jigsaw and putting in a different piece so it enabled us to will be aware of each other's activities and link up some things even though they probably weren't linked [at] strategic bidding point' (Int_16)

'It's partnership working, enabling the sustainability of its activities. And ultimately this stuff all works through people who are in mainstream roles and responsibilities. In other words, clinicians and people in NHS trusts, GPs (...) the hub is always going to be the enabler' (Int_20)

107 Int_15, Int_17, Int_20.

108 Int_06, Int_12, Int_20.

109 Int_06, Int_09, Int_11, Int_12, Int_15, Int_17, Int_20.

We reflect on the core hub functions below, as well as the value of the overarching Adopting Innovation Programme.

5.3. Providing central coordination

Hubs have played a role in the central coordination of innovation activities and have served as a resource for innovation in their local systems.¹¹⁰ One hub has been described as a 'landing zone' for innovation in its system.¹¹¹ Hubs are also looking to provide support around innovation adoption by understanding local demand and considering national mandates.¹¹² Hubs have also been viewed, by some, as an extension of existing bodies in the system, such as HINs, and an extension of their priorities and goals.¹¹³

5.4. Disseminating information and raising awareness about innovation

Culture change has been an important consideration for the four hubs from the inception of the programme,¹¹⁴ and was built into their thinking and work. All hubs strongly agreed that culture was and continues to be an important part of their activities and work,

both at later stages and during the initial survey conducted in the formative evaluation.¹¹⁵

Hubs have played an important role in disseminating information and raising awareness about innovation, towards a goal of shifting the current culture. This has included creating conversations and increasing the visibility around the role of innovation, engaging with senior leadership (with innovation now being part of regular conversation and chief executives across systems being further involved in conversations around innovation).¹¹⁶ The hubs have supported increasing the profile and highlighting the value of innovation adoption through communications activities (e.g. webinars, newsletters) and training/education offerings.¹¹⁷

The hubs have started and encouraged conversations to influence thinking around adoption of innovation.¹¹⁸ This includes supporting organisational learning within systems,¹¹⁹ including work around ensuring similar understandings/definitions of innovation terminology and using a shared innovation language.¹²⁰

Findings also emphasise the importance of hubs needing to align and be a part of their wider system, and as such, not separate from wider objectives in their context.¹²¹ So, whilst

110 Interview code removed to preserve anonymity.

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112 Int_06.

113 Int_20.

114 Int_05, Int_10, Int_16, Int_17, Int_18.

115 Survey data.

116 Int_02, Int_03, Int_04, Int_05, Int_06, Int_13, Int_17, Int_18; Dorset Hub, 2023; survey data.

117 Survey data; Innovation Unit, 2023.

118 Int_17.

119 Int_05, Int_12, Int_17, Int_18.

120 Int_17.

121 Int_20.

trying to influence and work counterculturally,¹²² it has been important to have leadership engaged in their work and for hubs to work with their systems, understanding what the system (and the people within this) want and need from innovation.¹²³ The hubs have also acted as a mechanism on the ground for system leadership,¹²⁴ adding value through this. Examples include patient and public engagement and highlighting the importance of this involvement in innovation.¹²⁵

Hubs have been positive disruptors in their systems,¹²⁶ worked in countercultural ways and encouraged people to talk about innovation.¹²⁷ Their work has initiated conversations and networks between stakeholders,¹²⁸ created communities around innovation,¹²⁹ and built capabilities.¹³⁰ Some hubs have also worked on innovation readiness within their health systems.¹³¹

Whilst considering the above, it is important to reflect that in some cases it is difficult to unpick what the specific hub added-value to the innovation culture has been, when in all systems there have been other contextual factors and activities taking place.¹³² Also,

there is still considerably more work to do, and all hubs are still progressing their work. The programme is viewed as the start of a journey. Culture change is not a quick transformation and will be ongoing for all hubs in their next steps.¹³³ Furthermore, hubs are moving beyond the hub model itself, with teams now thinking beyond this structure and looking towards being embedded within their systems.¹³⁴

5.5. Catalysing partnerships

As discussed above, *developing partnerships and relationships has been one of the hubs' central activities, and this has also been an important part of their added value in their systems, by connecting and convening key players involved in innovation activities.*

This relational aspect has been essential for bringing people together around shared ideas or goals.¹³⁵ Stakeholders have reflected on how powerful this role can be.¹³⁶ One local system was likened to a large jigsaw puzzle, where the hub moves the different pieces around seeing what fits and connects.¹³⁷ The hubs have also enabled some partners to be more aware of

122	Int_17.
123	Int_10.
124	Int_15.
125	Int_15, Int_17, Int_19.
126	Int_11.
127	Int_17.
128	Int_02, Int_04, Int_05, Int_15, Int_16, Int_17; Dorset Hub, 2023.
129	Int_04, Int_06, Int_16.
130	Int_03, Int_17.
131	Int_03, Int_06.
132	Int_07, Int_13.
133	Int_10, Int_16, Int_17.
134	Int_17, Int_20.
135	Int_05, Int_06, Int_07, Int_16; survey data.
136	Int_06; Int_16; survey data.
137	Int_16.

what else is happening in their system as well as possible opportunities to link.¹³⁸

5.6. Added value of the Adopting Innovation Programme

The Adopting Innovation Programme itself has added value to the local innovation-implementation ecosystems, by providing the hubs with key resources to do their work. These include the following:



The funding from the Health Foundation allowed for the hubs to conduct focused work around innovation, including the ability to be creative in their work and add value in the following ways: strengthening central coordination; contributing to learning, culture change and influence; and catalysing partnerships.



The Innovation Unit, as a learning partner, provided support for hub activities by engaging with hubs in one-on-one support and cross-hub peer-to-peer knowledge exchange.



Local evaluation teams provided feedback in terms of 'real-time' insights that helped hubs to iterate and change course as needed.

5.6.1. Funding support

Funding from the Health Foundation has enabled four locations to dedicate time, resource and energy into furthering innovation adoption in their local health systems. This has allowed teams to be creative in their work and also add

value through strengthening central coordination; contributing to learning, culture change and influence; and catalysing partnerships.

The desire for developing new approaches to innovation adoption that work in particular settings is reflected in the flexibility of the funding, which has allowed for changes in workplans and budget allocations to meet local contexts and, in particular, emerging challenges hubs have faced over the course of the programme.

While the funding has created a unique opportunity, there is a perceived mismatch between the scale of the Adopting Innovation Programme's ambitions and the available time and resources.¹³⁹ This is a relatively small-scale project and as such reflections on the programme highlight that this is just the start of the journey for the hubs and their local systems. Whilst the programme is coming to an end, the hubs' work is not, and there may be further and clearer, tangible added value in the future. A related consideration has been the need to demonstrate impact within the funding period and that the time frame may not allow hubs to have sufficient space to demonstrate wider benefit within their local health systems, as already discussed in this report.

5.6.2. Learning support

As part of the programme, hubs engaged with the Innovation Unit (IU) as a learning partner, who provided bespoke capacity building and learning support. The hubs have benefited from engagement with the IU through tailored one-to-one support as well as from peer-to-peer learning across hubs. In terms of one-to-one support, the offering of the IU has ranged from broad advice and consultation regarding innovation adoption to addressing

138 Int_16.

139 Int_05, Int_12, Int_21.

specific challenges that hubs are working on at any given point in time,¹⁴⁰ for example by supporting hubs during ‘reset’ periods, advising in times of uncertainty, or providing coaching support for hub leads. The IU also provided focused support including workshops and ‘development days’,¹⁴¹ with hubs highlighting the value that the IU has offered to the programme particularly in their capacity as a ‘critical friend’.¹⁴² As relationships developed over the course of the programme, hubs also reflected that engaging with the IU often felt like a ‘safe space’ where teams go to for advice and support when needed.¹⁴³ The IU have also hosted several learning events, many of which held in-person, where the aim was to focus on key areas and topics relevant to each of the four hubs. This included sessions on culture, co-production and sustainability.

The IU’s support offer to hubs has evolved over time and has largely been a role where they respond to hub needs. From an initial focus on identifying ‘gaps’ in local technical capabilities and capacities, the IU has with time developed an appreciation of the extent of infrastructure, capabilities and capability building mechanisms already in place within local systems.¹⁴⁴ As such, in addition to plugging specific technical gaps, an important part of the IU’s support offering has been helping hub teams to better consider how they might access and leverage existing capacities within the system, and then most recently

how they can consider sustainability looking to the future.¹⁴⁵

In working with the IU, the hubs articulated gaps to be filled and capacities to be developed to strengthen their local innovation-implementation ecosystems. These were helpfully summarised in the IU’s Adopting Innovation Wheel (Innovation Unit 2024).

5.6.3. Evaluation feedback

Local evaluators were commissioned by hubs to provide a ‘live’, formative role in the development of the hubs, producing insight and information that can help hubs to iterate and improve ‘in real time’.¹⁴⁶ There was a recognition that embedding the evaluation teams within the hubs should be balanced with independence. As the findings of local evaluations are likely to be key in establishing the business case for the sustainability of hubs within their local systems beyond the lifespan of the programme – and potentially for the wider adoption of the hub model – there is a requirement for these findings to be robust, objective and not influenced by the hubs themselves.¹⁴⁷

5.7. Measuring and assessing the value of innovation systems

Arriving at judgements about value relate, in part, to identifying results. Our initial understanding of this task was to assess four largely similar initiatives in four different local

140 Int_07, Int_23.

141 Int_05, Int_07.

142 Int_02, Int_05, Int_24.

143 Int_02, Int_05, Int_24.

144 Int_07.

145 Int_07.

146 Int_12, Int_14, Int_21.

147 Int_12, Int_07, Int_21, Int_22, Int_23.

circumstances and apply a realist perspective to conclude – at least provisionally – what works in what contexts. There was no intention to rank each hub against the others, but there was a sense that outcomes could be measured, and outcomes attributed to, hub activities. In this view, the value created would be in the innovations that were adopted and, ultimately, in the benefits this provided for citizens, service users and the efficient running of health and social care.

Our evaluation led to a different conclusion. Hubs from the outset aimed to support shared outcomes over which they had influence but no direct control. Our conceptualising of ‘added value’ therefore takes this into account and considers how hubs help increase an orientation of the local system towards innovation uptake, and how they help people to collaborate, build trust and learn. Hubs were also concerned not to replicate functions being carried out elsewhere. Accountability, in this framework, is not linked to results in a standard Outcomes Based Performance Management approach (Lowe 2013) but rather to an older notion of accountability which is that they should be required to give an account of their actions in the context of their intended outcomes.

Hubs offered such accounts (albeit in subtly different ways). They adapted their initially held priorities to align with systems, in some cases, and looked to see where there may be opportunities to link¹⁴⁸ and articulate their distinct purpose and role,¹⁴⁹ to ultimately add additional value into their systems. Hubs had differing views about the boundaries and nature of these systems. Some paid particular attention not to become an extension of

existing bodies in the system, such as HINs, and aimed to extend their priorities and goals,¹⁵⁰ rather than duplicating them. The hubs, or the functions they fulfil, therefore need a legitimate place where they (in whatever form) can sit, or secure other opportunities where they can be further embedded (i.e. as integrated as part of other ongoing activities) to reduce potential for duplication.¹⁵¹

Over the course of the Adopting Innovation Programme, there was a shift of focus from the proximal adoption of innovations to the distal aim of hubs supporting their systems more widely in alternate ways as discussed throughout this section and the report. Hubs have adapted to their contexts, local needs and partners to seek to add value in ways most appropriate. The hubs themselves have become an enabler, rather than just another organisation in their already complex systems, seeking to add value in ways that benefit their local context, and ultimately the health of the populations that they serve.

5.8. What impacts have the hubs achieved?

The remit of each innovation hub was to (1) serve as a centre of expertise and support within its local health system, helping to build knowledge, skills and confidence to build a culture conducive and supportive of innovation and (2) to promote the accelerate adoption and spread of innovations within health and social care.

With regard to the first aim, the hubs appear to be on their way to building local cultures that are more conducive and support of innovation.

148 Int_10, Int_16, Int_18; survey data.

149 Int_10.

150 Int_20.

151 Int_12.

This is evidenced by their abovementioned activities (see Section 4.2), as well as through their core functional offerings (see Sections 5.3–5.5). Nevertheless, shifts in culture take time to develop and take hold.

Regarding the second aim, there is less evidence that hubs have promoted the accelerated adoption of innovation, despite some hubs playing roles supporting partners and innovators in their local systems (see section above). It was perhaps underappreciated by the Health Foundation, and the hubs themselves, the time, effort and resources required for innovation hubs to establish themselves within their local systems, due to the abovementioned challenges (see

Section 4.3). Consequently, the hubs have spent much of the past two-and-a-half years defining their roles and building relationships across the system¹⁵² and many of the initial aims of the hubs have changed since their inception.¹⁵³

Culture change around innovation is a key part of accelerating adoption and spread, and the hubs are just beginning to make headway in this regard,¹⁵⁴ leading some hubs to feel that their impact and ‘journey’ are only now beginning.¹⁵⁵ As such, it is too early to have a clear understanding the current impact.¹⁵⁶ This process may require years to deliver measurable change.¹⁵⁷

152 Int_13, Int_16.

153 Int_03, Int_05, Int_08, Int_13.

154 Int_04, Int_05, Int_13.

155 Int_05, Int_13.

156 Int_11, Int_13, Int_18.

157 Int_11, Int_12.



Chapter 6. Conclusions

6.1. Key insights from the evaluation

- ▶ Hubs established themselves within local healthcare settings each of which had complex innovation-implementation ecosystems, including distinct cultures and mechanisms that, to varying degrees, already supported innovation adoption. Through their development and maturation, and via adaptation to myriad challenges, the hubs identified their added value and built a case for sustainability by becoming absorbed into the local system.
- ▶ Each hub started from a different place but converged towards integrating more closely with local systems and providing a unique offer in terms of three core functions: central coordination, information dissemination and catalysing partnerships. These functions potentially represent unidentified and/or unarticulated needs to better support the existing innovation-implementation ecosystem.
- ▶ All hubs tended to select from a similar suite of activities. These included developing tools for innovators; bespoke innovator support; educational offerings (e.g. staff training, webinars, upskilling staff and innovators); relationship building; patient and public engagement; and signposting to resources. It is possible that these activities were selected because of their 'fit' with what was practical and acceptable, building on previous experiences rather than being an optimal means to strengthen the adoption of relevant and proven innovations.

- ▶ Whilst one of the original goals of the hubs was to promote the accelerated adoption of innovation, this was not specifically achieved during the timescale of this evaluation, as the hubs were required to spend more time developing themselves, identifying their offer and added value, and developing plans for sustainability.
- ▶ The evaluation provided a unique opportunity to observe what happens when a novel catalyst for innovation, in the form of an innovation hub, is introduced into an existing, complex innovation-implementation ecosystem. From this, we have identified numerous enablers to promote and support innovation adoption (see Figure ES2).
- ▶ Evidence about how local innovation-implementation ecosystems function, and how to strengthen them, is limited; the evidence presented in this report represents a partial but helpful step forward.
- ▶ If we are to measure, see and understand the impact of hubs (or similar organisations), they need to be funded and evaluated over substantially longer periods of time to allow for set-up and impacts to be observed.

6.2. Lessons learnt

- ▶ Complex innovation-implementation ecosystems can be navigated by stakeholders willing to engage in strengthening the system, using creative and flexible approaches; the evidence from this programme would lead us to reject a counsel of despair that 'nothing works'.
- ▶ For innovation-implementation ecosystems to operate successfully, there must be a means to coordinate, inform and convene the work of individuals, groups and organisations, as represented by the three identified core functions of the hubs.
- ▶ The innovation hub model may be one way of achieving the abovementioned coordinating, informing and convening functions, but other models could potentially fulfil these functions.
- ▶ While the ICS is a natural place for the functions of hubs to sit, it is unclear whether and how the ICS, as currently constituted, will have sufficient capacity to support this.

6.3. What do local innovation-implementation ecosystem leaders need to know?

We have concluded that there is a role to be delivered in informing, convening and coordinating local innovation-adoption systems. Leading and navigating local innovation-implementation ecosystems requires skills and capacities which we have combined under the acronym BRASS: Behaviours, Relationships, Actions, Sustainability and Systems thinking.

6.3.1. Behaviours

The Innovation Unit wheel discussed earlier (Innovation Unit 2024), identifies four sets of behaviours critical to the success of hubs: creating an authorising environment, supporting adoption projects, building capabilities and nurturing enabling cultures. In practice, this includes modelling the behaviour that sets a tone for collaborative working for innovation adoption, providing tools such as horizon scanning and prioritisation, supporting learning networks, engaging with evaluations and sense-making to normalise innovation adoption as a shared priority. No hub exhibited all of these behaviours, but all exhibited at least some.

Figure 3. Skills and capacities required for leading and navigating innovation-implementation ecosystems



6.3.2. Relationships

Given the limited resources available to hubs, relationship building was seen to be critical to success. Relationships were easiest to build where the hub had a clear and distinct role and had something to offer others (providing tools, helping submit grant applications, convening events) and less easy where there were overlapping or unclear responsibilities. Relationships were strengthened where clear structures and processes allowed innovation adoption resources to be mobilised. As the Health Foundation has noted in a different study: ‘Leaders who are used to exercising their positional authority to drive change in their own organisation need a different skillset (Burgess et al. 2019) when operating at system level. In this place-based context, progress is contingent on leaders’ *relational* authority, which is built on trust and mutual respect, and requires well developed influencing and relationship skills’ (Jones et al. 2022).

6.3.3. Active learning

The Innovation Unit support and Health Foundation-hosted learning events provided significant learning opportunities. Interactions with the national evaluation teams provided further opportunities for reflection throughout the duration of the programme. Local evaluations differed in the degree of embeddedness and their engagement with learning. All these more formal learning opportunities were important but so too was learning from experience. One hub had a significant reset once it was learned that their approach was not working. Other hubs learned from what worked previously and built on that. There was learning across hubs but, in our experience, this was limited.

6.3.4. Sustainability

Sustainability can have many meanings but here we simply mean taking decisions that support long-term success. In practice, this was challenging when funding for the hubs was

time-limited, and staff inevitably looked for some long-term security. However, by embedding themselves within other priorities and working across organisations, hubs found (different) ways to ensure that potential benefits would continue after the Health Foundation funding, as planned, came to an end.

6.3.5. Systems thinking

According to the WHO, 'Systems thinking works to reveal the underlying characteristics and relationships of systems. They are non-linear, unpredictable and resistant to change, with seemingly obvious solutions sometimes worsening a problem' (de Savigny & Adam 2009). The WHO report goes on to identify two areas where systems thinking can be developed. The first is in designing the intervention (or, in this case, the hubs) and the second is designing the evaluation. The practical steps towards this, as identified in the report, resonate with what the hubs did in practice: convening stakeholders, collectively brainstorming, conceptualising effects and adapting and redesigning activities. Alongside this, the report recommends evaluation activities to support this approach.

6.4. Recommendations

For individuals involved in local innovation adoption and spread:

- ▶ Include the core functions of central coordination, information dissemination and catalysing partnerships as part of an overall strategy to build or strengthen innovation ecosystems.
- ▶ Identify and map individuals, teams and organisations within the local ICS that are involved in innovation.
- ▶ Identify current barriers or gaps to innovation, adoption and spread, and agree to these with stakeholders.

- ▶ Develop a compelling case for a specific 'innovation offer' that could better support innovation adoption in your local system.
- ▶ Align goals and objectives of innovation offers to system priorities, connecting the dots between what is important to frontline staff and senior leadership to facilitate innovation activities.
- ▶ Obtain, early in the process, organisational support and leadership endorsement and involvement to ensure there is support for innovation activities.
- ▶ Make sure that your innovation offers, including processes and activities, are co-produced with a range of stakeholders, including innovation end-users, system leadership, partner organisations, and members of the public.

For national policy makers:

- ▶ Leverage the establishment of ICSs to inform policies that support local innovation-implementation ecosystems, which in turn can help to deliver on national priorities for innovation uptake and spread and improve health and social care outcomes.

For evaluators and researchers:

- ▶ Future innovation research should prioritise understanding how local innovation adoption systems work.
- ▶ Evaluations should be embedded with implementing teams to strengthen relevance, learning and an understanding of how value is added (or not).
- ▶ When evaluating multiple sites, local data should include some datasets used across each site to support comparison and strengthen learning. This should include a systematic basis for describing local context.

References

- British Medical Association. 2024. 'An NHS under pressure.' As of 20/06/2024: <https://www.bma.org.uk/advice-and-support/nhs-delivery-and-workforce/pressures/an-nhs-under-pressure>
- Burgess, N., et al. 2019. 'Improving together: collaboration needs to start with regulators.' *British Medical Journal*. As of 20/06/2024: <https://www.bmj.com/content/367/bmj.l6392>
- Castle-Clarke, S., N. Edwards & H. Buckingham. 2017. 'Falling short: Why the NHS is still struggling to make the most of new innovations.' The Nuffield Trust. As of 20/06/2024: <https://www.nuffieldtrust.org.uk/research/falling-short-why-the-nhs-is-still-struggling-to-make-the-most-of-new-innovations>
- Damschroder, L.J., D.C. Aron, R.E. Keith, S.R. Kirsh, J.A. Alexander & J.C. Lowery. 2009. 'Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science.' *Implementation Science* 4(1):50.
- de Savigny, D., & T. Adam (eds). 2009. 'Systems thinking for health systems strengthening.' Alliance for Health Policy and Systems Research. WHO. As of 20/06/2024: https://iris.who.int/bitstream/handle/10665/44204/9789241563895_eng.pdf
- Dixon-Woods, M., C. Summers, M. Morgan & K. Patel. 2024. 'The future of the NHS depends on its workforce.' *British Medical Journal*. As of 11/10/2024: <https://www.bmj.com/content/384/bmj-2024-079474>
- Granstrand, O., & M. Holgersson, M. 2020. 'Innovation ecosystems: A conceptual review and a new definition.' *Technovation*. As of 11/10/2024: <https://www.sciencedirect.com/science/article/pii/S0166497218303870?via%3Dihub>
- Health Foundation. 2021. 'Four innovation hubs to be established as part of the Health Foundation's programme to improve the adoption of health care improvements.' As of 20/06/2024: <https://www.health.org.uk/news-and-comment/news/four-innovation-hubs-to-be-established-as-part-of-the-health>
- Health Foundation. 2024. 'Health care funding: Three key questions about funding in England.' As of 20/06/2024: <https://www.health.org.uk/publications/long-reads/health-care-funding>
- Hoddinott, S. 2023. 'The NHS crisis.' Institute for Government. As of 20/06/2024: <https://www.instituteforgovernment.org.uk/sites/default/files/2023-01/NHS-crisis-does-government-have-a-plan.pdf>
- Horton, T., J. Illingworth & W. Warburton, W. 2018. 'The spread challenge. How to support the successful uptake of innovations and improvements in health care.' The Health Foundation. As of 20/06/2024: <https://www.health.org.uk/publications/the-spread-challenge>
- Innovation Unit. 2024. 'Adopting Innovation Wheel.' As of 20/06/2024: <https://www.innovationunit.org/thoughts/adopting-innovation-wheel/>

Jones, B., T. Horton & J. Home. 2022. 'Strengthening NHS management and leadership.' The Health Foundation. As of 20/06/2024: <https://www.health.org.uk/publications/long-reads/strengthening-nhs-management-and-leadership>

Lowe, T. 2013. 'The paradox of outcomes: The more we measure the less we understand.' *Public Money and Management* 33(3):213–16.

Marjanovic, S., et al. 2020a. *Innovating for improved healthcare: Policy and practice for a thriving NHS*. Santa Monica, Calif.: RAND Corporation. RR-2711-DH. As of 20/06/2024: https://www.rand.org/pubs/research_reports/RR2711.html

NHS England. 2024. 'Pressure on NHS services remains high.' As of 20/06/2024: <https://www.england.nhs.uk/2024/03/pressure-on-nhs-services-remains-high/>

Stoy, G., M. Warner & B. Zaranko. 2024. *The past and future of UK health spending*. Institute for Fiscal Studies.

Annex A. Hub-level progress findings

Bradford District and Craven hub

At the time of data collection and analysis for the formative evaluation, the Bradford District and Craven hub was still in the process of reconsidering its approach to the selection of innovation projects and undergoing a 'reset' following challenges relating to the implementation of the Comprehensive Geriatric Assessment (CGA) as part of Bradford District and Craven Health and Care Partnership's 'Ageing Well' programme. Most of the early activities undertaken by the hub at this time were in relation to the CGA, although there were also plans to engage in the production of toolkits on prioritisation/adoption and establish an Innovation Champions network. Our formative evaluation found that the hub had experienced challenges in developing partnerships and that it was looking to re-engage and strengthen connections in the future. The partnerships cited at this early stage included Yorkshire & Humber Improvement Academy and West Yorkshire HCP.¹⁵⁸ The challenges experienced by the hub were attributed to a range of factors including resource pressures on partner organisations, and limited support for the intervention among frontline clinicians.¹⁵⁹ Most of the original team had also left or were leaving by March 2023, and it was identified that the hub lacked appropriate support and senior backing.¹⁶⁰ Finally, it has

been suggested that the hub being situated outside of the wider healthcare system was a barrier to it developing influence.¹⁶¹

The new approach for the hub post-reset has aimed to engage with relevant stakeholders to better align innovation selection with frontline needs and agreeing to local priorities. Data collected since the formative evaluation indicate that the hub has a clearer vision and alignment to system priorities, and that lessons from the earlier stage of implementation are being taken on as the hub integrates more closely with the ICB/ICS approach to innovation.¹⁶² This has included consideration of how the work of the hub could align with broader aspirations within the system to 'improve as one' through thinking about improvement, innovation, organisational development and workforce development. The hub hosted a priority development workshop in October 2023 with stakeholders to sign off on an innovation adoption tool checklist and confirm areas of focus for the hub. Building on this work, the hub aimed to hold up to five 'innovation adoption development days' to support the development of innovations related to these aforementioned priorities.¹⁶³ These core activities will be accompanied by resource development such as the development of a co-production toolkit, the establishment of a

158 Formative evaluation data collection.

159 Formative evaluation data collection.

160 Innovation Unit, 2023; interview code removed to preserve anonymity.

161 Two interview codes removed to preserve anonymity.

162 Survey data.

163 Survey data.

community of practice network and the hosting of regular innovation drop-ins.

Cambridgeshire and Peterborough hub

At the time of data collection for the formative evaluation, the Cambridgeshire and Peterborough hub planned to bring together regional innovation, health and care, and academic stakeholders to understand how innovations can reduce health inequalities. The hub used a checklist-based approach to choosing innovation projects, considering whether an innovation is 'proven', whether it falls within system priorities, and whether it relates to or has the potential to address health inequalities.¹⁶⁴ There was also a focus on co-production and the hub had begun to organise co-production and co-selection sessions, although it was noted these may have been failing to capture certain under-engaged members of the population. As of the end of the formative evaluation, the hub was working to improve its processes for co-production and engagement in relation to underrepresented communities. Hub activities included the creation of an innovation 'Culture Club' (a space to convene clinicians and explore how to develop a culture for the successful adoption of innovations¹⁶⁵) and a Citizen Participation Group (a group largely comprising public stakeholders from across Cambridgeshire and Peterborough with

an interest in innovation¹⁶⁶), as well as the development of the online Citizen Lab platform making the hub's offerings available to those interested in innovation. Finally, several key partners were identified at baseline including the Eastern AHSN and the University of East Anglia Impact Group.¹⁶⁷

Following the formative evaluation, the hub now appears to have made progress with securing sponsorship and engagement. Similar to the other hubs, the Cambridgeshire and Peterborough hub has been thinking about its long-term sustainability, in this case via joint funding from the Health Foundation and the ICB.¹⁶⁸ There are plans for the Hub Support Officer and Citizen Lead positions to migrate into the ICB under the new Head of Innovation and hub lead, incorporating key workstreams like the Adopters' Network and Citizen Participation Group.¹⁶⁹ The hub has been active in co-producing bids and has supported a diverse range of local projects. This includes co-writing bids for 'Minuteful for Wound',¹⁷⁰ supporting the roll-out of KardiaMobile ECG/EKG devices, and assisting with co-production of the Obesity Tier 3 service re-tendering.¹⁷¹ The range of wider activities undertaken by the hub includes the Adopters' Network and the Innovation Showcase, a networking and engagement event featuring 32 market stalls representing industry, NHS innovators, support organisations and the Citizen Participation Group.¹⁷² Finally, the hub has also organised

164 Formative evaluation data collection; interview code removed to preserve anonymity.

165 Formative evaluation data collection.

166 Formative evaluation data collection.

167 Formative evaluation data collection.

168 Interview code removed to preserve anonymity.

169 Cambridge and Peterborough hub, 2023.

170 As of 4 November 2024: <https://healthy.io/eu/services/wound/>

171 Cambridge and Peterborough hub, 2023; survey data.

172 Cambridge and Peterborough hub, 2023; Innovation Unit, 2023.

Innovation Selection Workshops with the Institute for Manufacturing which featured representatives from CPFT, NWAFT, Eastern AHSN and Cambridge University Health Partners.¹⁷³

The key challenges which have been highlighted by the hub include those relating to sustainability and maintaining the momentum, values and relationships of the hub following the move into the ICB and the departure of key team members.¹⁷⁴ According to hub plans, potential harmful effects from the programme ending are being mitigated through having a substantial plan and a managed hand-over for integration into the ICB and the continuity of the hub support officer role.¹⁷⁵

Dorset hub

At the time of data collection for the formative evaluation, the Dorset hub had planned to support several key goals: the identification and establishment of innovation projects in key areas of need, implementation of innovation projects under the NHS MedTech mandate, training in innovation adoption, implementation and evaluation, and coaching of implementation leads. The hub had adopted an approach to innovation selection based on identifying areas of local need through partner organisations, followed by initial plans for a horizon-scanning process in collaboration with Wessex AHSN to identify innovations relative to each area. At the time of data collection for the formative evaluation, the hub was seeking to provide support to innovation projects and

had hosted events including a training course on the 'Fundamentals of Innovation' for all, but predominantly staff across the Dorset ICS. Finally, several key partners were identified at baseline including Wessex AHSN, University Hospitals Dorset and Dorset County Hospital.¹⁷⁶ BCP Council and Dorset Council have also been key partners beyond those in the ICS.

The Dorset hub has transitioned to align more closely with the central strategy and priorities of the ICS, and has been considering several innovation priorities identified as areas of need within the system as part of aims to address system pressures. The hub has continued to support the MedTech and Malnutrition in Ageing programmes, while a renewed focus on networking and education has seen the hub work in partnership with the Health Sciences University (previously AECC) and NHS Dorset to offer awareness sessions, develop a Community of Practice and develop six-day practitioner training to be delivered in May 2025.¹⁷⁷ Finally, the hub will hold a Dorset Innovation Hub summit with a focus on using innovation to 'support communities to live their best lives', and a Development Day for the Malnutrition in Ageing project focused on the benefits and implementation of two different innovations.¹⁷⁸ Nonetheless, the progress has been a 'slow burn' as Dorset has – like the other hubs – experienced delays in delivering impact due to system pressures and capacity issues. For example, progress on the Malnutrition in Ageing programme in particular was limited by an inability to bring the right people together within a busy system.

173 Cambridge and Peterborough hub, 2023.

174 Cambridge and Peterborough hub, 2023.

175 Cambridge and Peterborough hub, 2023.

176 Formative evaluation data collection.

177 Dorset hub, 2023; interview code removed to preserve anonymity.

178 Survey data; interview code removed to preserve anonymity.

Manchester hub

The baseline findings from the formative evaluation indicated that the Manchester hub was focusing on digital innovation, with the aim of improving health outcomes for its diverse population, with North Manchester seen as a test-bed for data collection for one of their projects. The hub triaged new innovation projects using an innovation checklist which included consideration of: relevance (e.g. whether it is digital and can be considered innovative); interoperability; potential impact; digital inclusivity; data protection; cyber security; procurement challenges and information governance.¹⁷⁹ Nonetheless, the need for alignment with the local system, particularly in relation to the implementation of the HIVE digital system in Manchester, was presenting challenges with relation to identification and implementation. The hub had still not identified any projects at baseline, as one project was no longer suitable under the hub framework and would require further development work, while another was postponed due to the integration of care records.¹⁸⁰ Hub activities included the development of a toolkit and an engagement and communications plan, and creation of a network of Digital Champions within MFT hospitals. Finally, several key partners were identified at baseline including VOCAL, Health Innovation Manchester and GM ARC.¹⁸¹

Following the formative evaluation, the Manchester hub has made progress in a number of key areas. A new project manager

has been appointed from Health Innovation Manchester while several team members have attended a Digital Leadership Programme course organised as part of the Developing Our Digital Workforce Programme (DODW). The hub has continued to develop and embed hub infrastructure and support within the system and increase the profile of the hub locally through webinars, masterclasses and the recruitment of a digital champion.¹⁸² A new sustainability plan is also being developed to utilise the hub underspend and use benefits realisation to make a case for the continuation of the hub.

Finally, a PPIE plan has been drafted with VOCAL to support the programme-level activities of the hub. This includes the creation of a patient advisory group, bespoke training for members of hub staff, the development of a PPIE road-map and the development of core principles of PPIE in innovation. This work is aiming to embed patient perspectives into the innovation process at MFT, rather than these only being considered when a project is up and running.¹⁸³ The close integration into the system has also presented some challenges for the Manchester hub. Due to the complex system in Manchester, the hub has faced challenges ensuring activities are spread and penetrated across the system, whilst also needing to consider the contextual factor of the HIVE, which is the implementation of a Electronic Patient Record system across the Trust, slowing processes.¹⁸⁴

179 Formative evaluation data collection; interview code removed to preserve anonymity.

180 Formative evaluation data collection; interview code removed to preserve anonymity.

181 Formative evaluation data collection.

182 Manchester hub, 2023.

183 Manchester hub, 2023; interview code removed to preserve anonymity.

184 Innovation Unit, 2023; two interview codes removed to preserve anonymity.