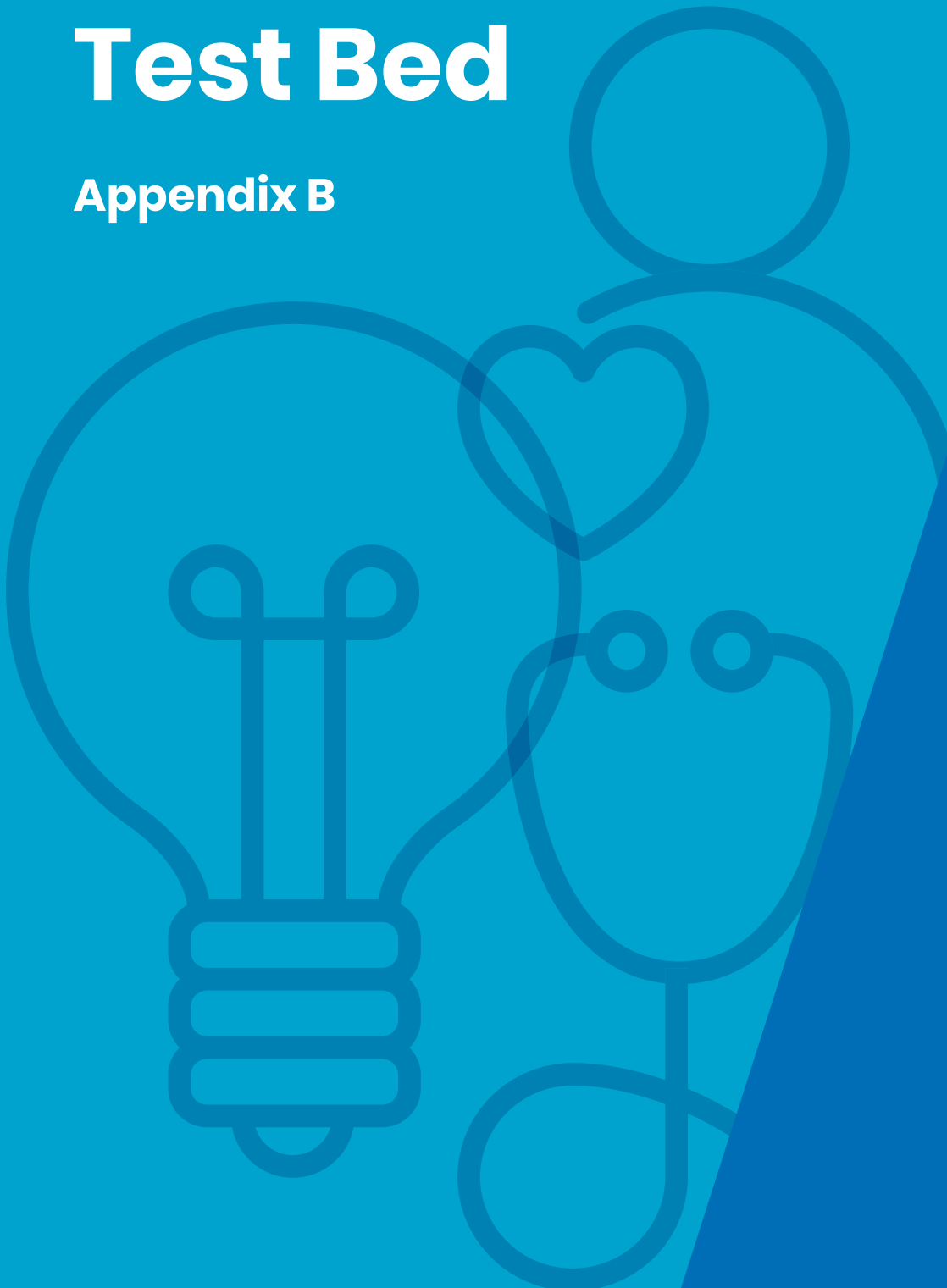


Key Lessons Learnt from The Care City Test Bed

Appendix B



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Key Lessons Learnt from The Care City Test Bed

This document provides an overview of the key lessons learnt by Care City as part of its delivery of the Wave 2 NHS England Innovation Test Bed.

This document is an appendix to the Care City Co-design Report.

Key lessons learnt across the Test Bed programme

Uniting pathway innovation and workforce innovation is rewarding but highly complex

- Historically, workforce change has been driven nationally by national agencies and the Royal Colleges, and hyper-locally by individual departments, employers and leaders. Part of Care City's vision was to show how Integrated Care Systems could work at an intermediate level, to drive workforce innovation and system and pathway innovation together. Our reflection is that we have shown what is possible in this space, but also that we are continuing to build the coalition locally to enable us to do this systematically. At present, engineering local system-wide adoption of new roles and training offers associated with novel services and pathways is difficult. However, we believe that this is starting to change, as many areas – like Barking and Dagenham, Havering and Redbridge – created health and care workforce academies to bring their systems together around these kinds of ambitions, and to work together locally to 'grow the workforce of the future'
- We think that particularly in relation to the care workforce, ICSs will be able to achieve huge changes in opportunities, skills, roles and service if they work together to simultaneously change care pathways for those receiving care and career pathways for those delivering care. The work of this Test Bed has hugely helped Care City to demonstrate this, and to drive forward this agenda locally.



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Testing innovation in health and social care requires a flexible, test and learn, approach

- Testing innovation requires space for evolution – a balance between having clear service spec and protocols agreed upfront, and the flexibility to iterate the service delivery model as we learn in light of new knowledge/data
- Care City's approach – rather than focusing on one innovation in one place – was to focus on eight innovations in three clusters across a large number of test sites. This creates space for learning, failure and evolution
- However, within a large, national programme it can be difficult to realise benefits of an iterative approach when it can be extremely difficult to change goals, partners or deliverables (where we did try to do this a year ago, the administration process is still not completed)
- As an ambitious national programme, the expectations of Test Bed delivery partners are unsurprisingly high. Getting the balance right between ambitious success metrics and local programme agility and iteration can be difficult. The reporting focus of the Test Bed were the participant recruitment numbers established prior to launching the programme. Although achieving sufficient participant numbers is important, especially for building a robust business case, there is a risk that other important learning may be lost through a sole focus on participant numbers. The Nuffield Report – *Achieving Scale and Spread* (2020), highlights the importance of determining metrics which go beyond measures of spread (number of sites lives, patients recruited, products sold etc) and instead place value on desired outcomes of local implementers and innovators – which may include the innovators ability to adapt their innovation in response to local need. Establishing a level of flexibility and agility within the programme monitoring may generate much deeper and richer learning, with application beyond the local Test Bed team. Therefore, metrics are important, but need to be managed carefully because there is a risk of diverting attention/focus to detriment of delivering good work
- There needs to be a recognition of the amount of time it takes for innovations (no matter how 'good' they are) to be embedded into the service pathway – this is mostly due to behavioural change required by the workforce which takes capacity, incentive and trust in the innovation but may also be determined by:
 - The local behavioural change required from patients and staff
 - The level of local pathway redesign required
 - Significant upfront resources and staff time to embed the technology – early stages of implementation often can't be done within business as usual
- Technical implementation/integration – a one size fits all approach does not work – it is difficult to translate models to other test sites because each test site has a different working structure, priorities, and workforce (skills and motivations). Therefore, we need to ensure that delivery of innovation will be suitable and adaptable for each test site. Implementation plans need to be localised for each partner (each domiciliary care agency, each GP practice etc.) due to these differences. Implementation has worked best where test sites have demonstrated strong organisational leadership and adapted to the specificity of their own setting.

The set-up and early phases of innovation projects is key. National funders looking to release value from partnerships with small organisations need to understand the risks incurred by small organisations when funding is delayed or demands lengthy and time consuming administrative processes

- As an organisation we understand that robust scrutiny and detailed due diligence is vital to the integrity of large, publicly funded programmes. However, Care City faced a number of challenges in the early months of the Test Bed programme, some of which undoubtedly impacted our early delivery. Notification of the final outcome of our application was delayed, with several indications that the grant may be withdrawn. Once the agreement was finally secured, there were multiple layers of due diligence which took some time and intensive organisational resources to work through. The impact of such uncertainty for a small organisation like Care City can't be underestimated. Large national programmes seeking to realise value through local partnerships must consider the financial risk to smaller organisations through the lengthy and bureaucratic processes which are often generated
- Decisions and contracts are often delayed and difficult, and Care City is skilled in successfully kickstarting projects despite high levels of uncertainty, maintaining a clear, confident narrative for project partners. However, the scale of the risk and pressure on the team in the Test Bed context meant we didn't do this as well as we would have liked, which is an important leadership lesson for the organisation
- When organisations face significant risks and challenges from the beginning of a programme this can reduce room for creativity and agility in programme delivery. Rather than investing energy in finding creative solutions to any challenges which may emerge, organisational focus can be skewed towards risk management often at the detriment of the overall programme. Funders can mitigate against this through getting a balance between robust programme monitoring and minimising unnecessary financial risk or payment delays to smaller organisations.

Despite the best of intentions, successful implementation can't be achieved by good will alone and strong financial levers are often required to ensure sustained testing of innovation in real world settings

- Without a doubt, testing innovation in health and social care is more likely to have traction if there is financial incentive. This means that it is essential to both remove the disincentives to engagement with technology and incentivise and reward uptake. There is significant motivation and interest across health and social care to realise the value of digital technology. However, in a context of restricted budgets and multiple pressures, it is unlikely that good will alone will achieve change
- One of the programme's most significant successes was delivered through the smartphone based ACR (albumin creatinine ratio) testing. ACR testing is crucial in detecting and managing kidney disease. GP practices are measured against the number of ACR tests they complete as part of the NICE Quality and Outcomes Framework and receive financial reward for meeting specific targets. There were a large number of people who our partner GP practices had struggled to reach with ACR testing which meant they risked losing the associated financial payment as well as gaining the cost of poorer health outcomes for their patients. The Healthy.io ACR tool demonstrated immediate value in obtaining ACR test results from a large number of these individuals, some of whom had an abnormal result and were able to be treated promptly. The simplicity and tangible financial value of the digital tool resulted in rapid uptake and acceptance of this technology

- In contrast, despite strong leadership buy-in and payment for staff backfill for the testing of Liva in primary care we had less successful engagement. Even with backfill payments, there simply wasn't the staff capacity to draw on and therefore the Care City team picked up many of the tasks. The lack of capacity combined with less instant visibility of the financial and health outcome benefits may have had some impact on the motivation of staff involved with the project. This demonstrates that senior leadership is not enough to achieve success in innovation – but delivery staff also need to tangibly connect with the benefits of the technology

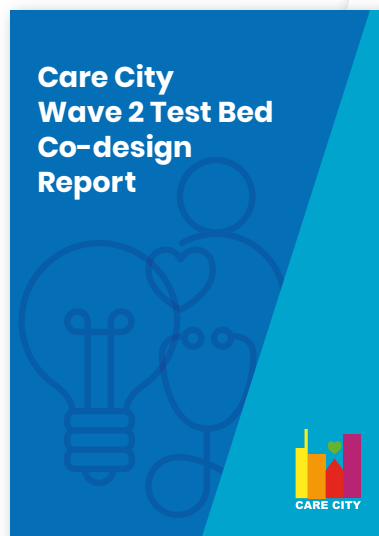
We were successful with the testing of Whzan in domiciliary care even though it was an additional, non-compulsory and non-profit-making area of their work. However, crucially, the agencies agreed to do so because the Test Bed programme was able to pay backfill for the additional staff time required to deliver the testing. If this work were to be extended beyond the Test Bed, a detailed conversation would need to happen between health and care providers about funding the additional time required for carers to undertake these tasks.

Co-designing the care pathway with delivery partners and innovators ensures that the intervention best meets the need

- From the outset we were ambitious about the role of co-design in our work. We knew that genuine co-design can bring diversity of thought and perspective to innovation work and determine its success or failure. We had learnt from Wave 1 of the programme and as a result, we recruited a co-design lead to join the Test Bed programme team. We also partnered with the Good Things Foundation to bring additional expertise to this element of the programme
- Bringing innovators together with staff and users was important to our iterative approach to innovation and those innovators who contributed the most to co-design were the ones who saw the most success within the programme. Having the innovators present during the co-design sessions allowed them to understand the implementation team's and patients' concerns/issues/perspective first hand which facilitated more collaboration and understanding and developing an innovation that better met the needs (i.e. TickerFit)
- Co-design facilitated a sound understanding on the clinical and care pathways within each cluster, which helped with implementing the innovation in question, leading to successful implementation of innovations in two clusters (Domiciliary Care and Primary Care) – with clear routes to scale and knowledge sharing.

Further details on the co-design process and outputs are contained within the Co-design Report.

 [View the Report here](#)



Digital exclusion still presents a significant issue for the groups with the highest need in our community and risks a digital health inverse care law effect

- Digital exclusion is typically understood as one or a combination of the following – hardware (e.g. not owning a laptop or iPhone), connectivity (e.g. running out of data), understanding (e.g. confidence using software) or motivation to get online
- However, digital exclusion manifests in a number of different ways for our communities (e.g. exclusion because there are cultural barriers to engagement including English not being the first spoken language)
- A place-based approach to implementation of health and social care technology is critical to its success and ensuring that there is opportunity (through co-design for example) for a diverse range of voices and perspectives to identify challenges and solutions. For example, one unanticipated challenge with the remote cardiac rehabilitation tool that some of the participants did not have space in their homes, due to overcrowding, to undertake their exercises. A solution to this, worked through with patients and clinicians was to offer a drop-in group in a local community centre where patients could work through the app together. This did not happen due to COVID-19, but this was an issue which could have very much been missed had we not had active participation in co-design and feedback sessions
- It is likely that a lack of diversity in the digital sector, and a one size fits all approach, leads to the development of products that do not reach digitally excluded communities. Testing of innovation requires the capability, capacity, and funding to evolve products to meet the needs of those we are trying to reach – we worked with TickerFit to develop their app to ensure it was more widely accessible within the population, by developing the exercise videos and FAQs on the app to be available in two spoken languages
- Until everyone has the same access to technology, digital solutions will need to be paired with more traditional approaches to service delivery to ensure we are not excluding the people with the greatest need.

Buy-in from senior leadership is not enough

- Despite leadership buy-in at the start of the programme, once the programme had launched we encountered some challenges in securing the support of frontline staff This is important learning about the essential need to invest time in more user groups and consultation beforehand, to ensure programmes deliver what people need rather than what we think people need
- Innovation must be seen with an equal footing to traditional methods by both staff and patient, in order to be successfully embedded within the service pathway.

Innovation must be seen with an equal footing to traditional methods by both staff and patient, in order to be successfully embedded within the service pathway.

KEY LESSONS

Domiciliary Carers



Consider the importance of language in engaging staff and users with technology

This part of the programme sought to exploit the value of Whzan and Dip.io working together to ensure there is a rich data set when escalating deteriorating clients (based on NEWS score) for clinical advice and action.

To ensure that a combinatorial approach to an intervention like this is to work, it is important that all innovations that are involved are seen as one tool. This means introducing them together and being clear about how they work and interact. This is both helpful for contextualising this for carers as well as creating a clear and simple narrative for their clients. Carers and clients are not necessarily interested in the 'how' a product works or the company behind it, but will connect with the 'what' it does and 'why' that is important. The way language is used to talk about technology can either discourage and disengage or enthuse and engage people with the product. Together.

Digital programmes provide the opportunity for new skills development – ensure that there are opportunities to for staff to continue to use and develop these

Implementing these technologies, meant that staff had the opportunity to escalate NEWS details to primary care or 111. Prior to the Test Bed programmes, when staff had concerns about a client's health they had no tools to collect objective clinical data to augment their conversation with health professionals. Care staff reported that they benefited from the programme, both through increasing confidence in liaising with health staff as well as developing skills in understanding their client's long-term condition and factors which may indicate deterioration. Carers also told us that GPs found their conversations more focussed, with clear health status information which enabled improved and more efficient clinical decision making. Importantly for the individuals receiving care, this creates the opportunity for much quicker and more skilled intervention.

In summary, we believe that there is enormous potential in enhancing the clinical skills of domiciliary carers, providing that this is done within a supported clinical pathway with well developed local escalation protocols. When initially implementing such changes, there is the hance of unintended consequences, such as a sharp rise in unnecessary requests for GP support. However, as non-clinical staff become more skilled at using the technology and confident in support from primary care, this can be avoided. Just as Enhanced Health in Care Homes is now being rolled out nationally, we believe that related models will come to homecare in the future, and that this Test Bed will make a significant contribution to that change.



KEY LESSONS

Digital Prescribers in General Practice



Understand IT systems, map integration needs and mitigate for any delays or challenges

General Practice has often been the leader in healthcare in terms of uptake and spread of technology. However, the design of primary care means that GP practices operate as independent businesses and therefore there is wide variety in terms of facilities and IT infrastructure. It is essential that primary care related innovation and technology starts with an in-depth understanding of the relevant IT system, has secured the necessary integrations and can facilitate smooth data reporting and evaluation. Whilst many innovators and technology companies claim various levels of integration, this needs to be fully understood and tested before implementation. We faced a challenge early on in the project where one company lost a contract with a large primary care IT system provider which virtually made any further partnership impossible.

Don't expect successful innovation delivery without upfront investment. Be clear with staff about the initial upfront resource cost but place this within the context of long-term value

It is widely understood, particularly during the current COVID-19 pandemic that our primary care system is stretched to capacity. GP practices are managing unprecedented demand and as highlighted earlier, despite the best of intentions they will often have limited time and energy to commit to anything beyond business as usual. Although digital technology can produce significant time and resource savings, these are rarely realised immediately and such projects often require upfront investment. The public sector is often guilty of expecting staff to work above and beyond their roles in service of the public and many services are maintained due to staff goodwill and a high level of public service motivation. Particularly in innovation, progress often relies on a small number of highly motivated staff. However, such energy and additional workload cannot be maintained in the long-term without risk of burn-out. Therefore, when planning such projects it is essential to understand workforce resource and resilience and plan for additional capacity, at least in the short-term.

Establish the baseline level of digital skills across the team you are working with and be aware of assumptions around this

A further important learning from this part of the programme was around the wide range of levels of digital literacy and exclusion amongst staff. For example, a large proportion of the HealthCare Assistants (HCAs) we worked with did not have email addresses. This presented difficulties around ongoing communication and the project team had to work around this to identify the most effective ways of collaborating and communicating with the HCA staff. Establishing this at the onset could have prevented some of the challenges which emerged at a later date.



KEY LESSONS



Cardiac Rehabilitation

Prioritise transparent information governance and data protection processes and engage people in conversation about their data

Ensuring robust and effective information governance and data protection in innovation projects is necessarily a lengthy and complex process. There is no greater asset than our personal data, and concerns about use of personal data often presents a barrier for people to engage with emerging technology. The language and processes used to ensure data safety can often appear opaque to those not conversant in information governance language. Engaging staff and patients in plain English conversations about data, how it will be used and its impact on health services and planning can play a role in securing more wide support for the technology and addressing any concerns that may be raised.

We faced two key challenges for the cardiac rehabilitation part of the programme in relation to information governance. Firstly, NHS organisations have their own internal information governance protocols and in some cases this differed from the Test Bed. Thus this created a lengthy administration project to achieve the relevant approvals. Secondly, and unsurprisingly the timetable within NHS organisations for their information governance appraisal and approvals differed significantly from the Test Bed programme. This had further impact on the implementation of the cardiac rehabilitation testing and the start date was significantly pushed back. As a Test Bed, we should have understood and mapped these processes before the launch of the programme to mitigate, as far as possible, for delays.

The differences in information governance processes between NHS England and a large NHS Trust demonstrated how information governance, rather than a tool for safe innovation, can end up feeling like a barrier to progress. At a national level there is a need to consider how we can support information governance processes which both ensure safety of data but embrace innovation and an acceptable level of risk. The length of time that existing processes currently demand (and the central requirements on NHS organisations) mean that innovative ideas can be crushed before they have had the opportunity to deliver value.

“
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Where a digital technology is implemented alongside existing pathways of care, its additional value must be explicitly obvious to both clinicians and patients or risk both staff and patients remaining with the status quo

TickerFit is an innovation that is offered by the cardiac rehabilitation service as part of the menu of options they offer patients as part of their cardiac rehabilitation programme. It can be used either on its own or complementary to the traditional face-to-face programme depending on the patient's condition. A key learning with embedding this type of innovation – where it complements, not replaces, a traditional service – is that both clinicians and patients must understand the innovation's added value and see it with equal footing to the traditional service.

When embedding new services, whether involving technology or otherwise, it takes a long time to be successfully adopted

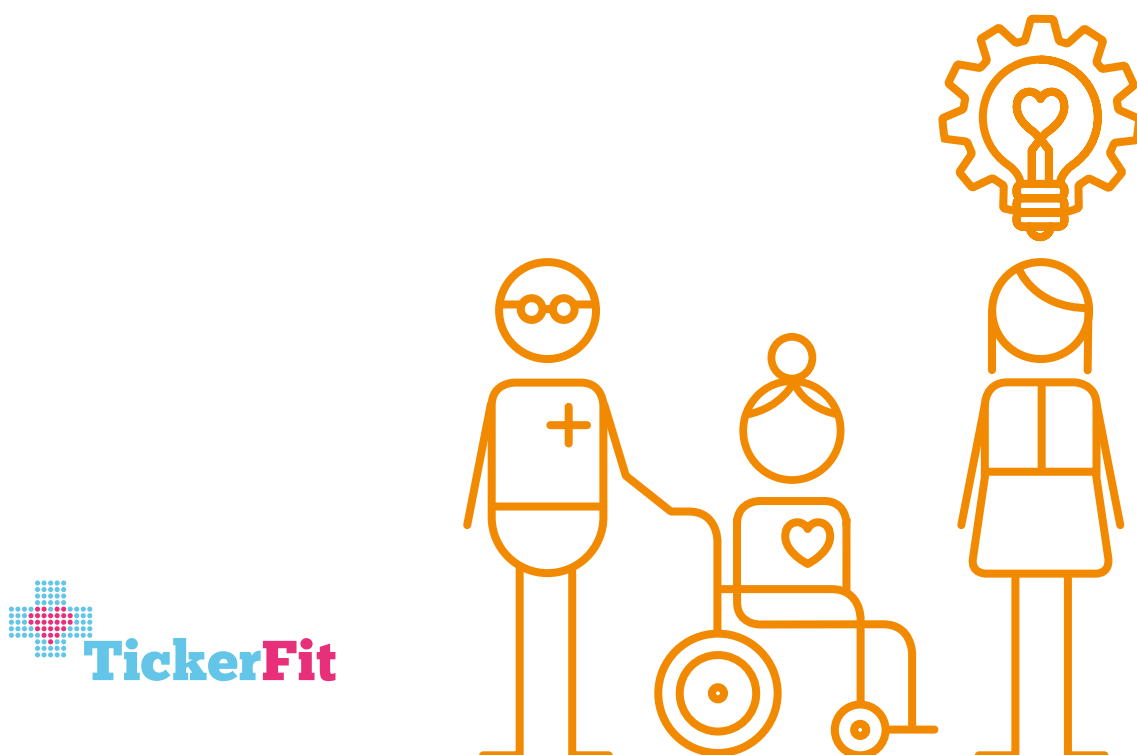
The Test Bed programme, which is only 18 months long, isn't necessarily enough time to see the full potential of the innovation.

Identifying what motivates people to take up cardiac rehabilitation will aid in understanding whether people are more likely to use the technology

For example, those that choose to do the traditional face-to-face cardiac rehabilitation programme value the opportunity to share their journey with people with the same lived experience. Innovations seeking to augment current service pathways must take these reasons into consideration and explore ways in addressing these with their offering.

Collaborative working across the project team has been a great enabler throughout this project. Providing a safe place for all stakeholders to explore issues and solutions meant that we were able to address issues within a timely manner

Having an external facilitator leading these sessions was a great asset because it allowed all the stakeholders to focus on the matters in hand, and feel confident that the co-design was led with no bias.



Conclusion

Innovation projects are hard and there is no magic bullet. The ability to iterate, be flexible and responsive to feedback and evaluation is essential to building a successful end product. As a result, in health and care we need technology partners who understand and have capacity to adapt their product and this has been the value of our Test Bed innovation partners.

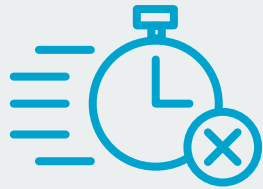
Some of the best innovation ideas won't deliver what was expected, with multiple reasons and factors for this. In these cases it is better to rapidly adapt or fail quickly and move on. Those products which are simple to explain, offer tangible solutions to a real world problem and can deliver financial value quickly are much easier to embed and scale and will more easily capture the imagination and commitment of the workforce.

Ultimately, harnessing the power of digital innovations in health and care is still determined by people rather than the technology. People are involved in the procurement, technical integration, information governance, user recruitment, testing and evaluation and will be the storytellers of the success or failure of the project. Engaging the right people effectively, investing in and rewarding early champions and being upfront and transparent about the additional demands which may be required in the short term will help navigate the project successfully from early testing to more widespread adoption and scale.

The ability to iterate, be flexible and responsive to feedback and evaluation is essential to building a successful end product.



Our Top Tips From The Test Bed



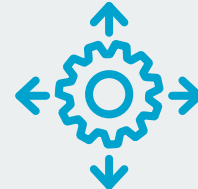
Don't rush engagement or investment in behavioural change

1



Invest in local champions

2



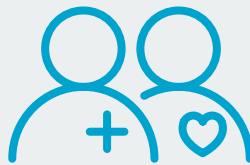
Expect to invest in additional capacity at the start of the project

3



Be clear on the shared understanding of success and ensure staff can see the impact the technology is making

4



Understand your population – staff and patients

5



Understand the organisation and any relevant timetables for required approvals (e.g. ethics or information governance)

6



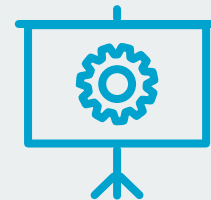
Be careful with performance metrics to ensure these support and don't hinder learning and success

7



Understand the IT system in use and its capabilities

8



Offer training/support throughout the project

9



Keep reporting simple

10





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