



Q Exchange 4: insight summary for applicants

Bringing together the worlds and methods of improvement and digital, to
enable better outcomes and faster, more sustainable change

January 2022

Led by




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Contents

- [About Q Exchange](#)
- [About this insight summary](#)
- [Bringing together the worlds and methods of improvement and digital, to enable better outcomes and faster, more sustainable change](#)
 - [Why this theme?](#)
 - [Three things we already know](#)
 - [What are the challenges and opportunities?](#)
- [Supporting service change, in particular the opportunity and need to enable care at home or in the community](#)
 - [Why this area of interest?](#)
 - [Four things we already know](#)
 - [What can we learn from Q Exchange-funded projects?](#)
- [The role digital technology can play in staff wellbeing](#)
 - [Why this area of interest?](#)
 - [Three things we already know](#)
 - [What can we learn from Q Exchange-funded projects?](#)

 Use the links to navigate to different sections of the document

Contents

- [Digital and improvement communities: sharing skills and perspectives between these groups](#)
 - [Why this area of interest?](#)
 - [Two things we already know](#)
 - [What can we learn from Q Exchange-funded projects?](#)
- [More general learning on digital change projects](#)
 - [More general learning on digital change projects](#)
 - [Learning from Q Exchange-funded projects](#)
 - [Learning from elsewhere](#)
- [References](#)

 Use the links to navigate to different sections of the document

About Q Exchange

Q Exchange is Q's participatory funding programme. This round of the programme is jointly funded by the Health Foundation and the NHS, in partnership for digital health and care. We will award up to £40k each to 20 improvement projects focused on the following theme: **Bringing together the worlds and methods of improvement and digital, to enable better outcomes and faster, more sustainable change.**

Within that, bidders are encouraged to consider bids:

- supporting service change, in particular the opportunity and need to enable care at home or in the community
- focusing on the role digital technology can play in staff wellbeing. Staff-facing technology is within this scope, as well as work looking at enhancing the experience of technology in the workforce.
- focusing on the digital and improvement communities, for example looking at sharing skills and perspectives between these groups.

About this insight summary

This summary brings together Q's existing insight on the topics of the 2022 Q Exchange theme. It aims to inform, engage and inspire members on the theme, and help members access insight and learning relevant to their areas of interest.

It is not a comprehensive summary of the evidence. In the collaborative spirit of Q Exchange, we would encourage others to share their own learning and reflections as members are developing improvement ideas on the [Q Exchange site](#).

It draws on learning predominantly from the Health Foundation and the NHS including:

- Health Foundation-funded research by the Nuffield Department of Primary Care at Oxford University: [Video consulting during and beyond the COVID-19 pandemic: Implications for scale up and sustainability](#).
- IPSOS Mori evaluation for the NHS of the [Regional Scale Programme and National Innovation Collaborative](#).
- Case studies and resources shared on the [Innovation Collaborative Digital Health workspace on FutureNHS](#).
- Examples and learning from projects funded from previous rounds of Q Exchange are used to illustrate and contextualise this evidence for the Q Exchange programme.

A full list of references can be found at the [end of this document](#).

*Bringing together the worlds
and methods of improvement
and digital, to enable better
outcomes and faster, more
sustainable change*

Why this theme?

“The key thing for any successful implementation of a large and complex system, it's about the people and the processes as well as the technology. ...we found that we could really usefully apply that quality improvement agenda to the way in which we were taking forward the delivery of the digital strategy”

*Kevin Jarrold
(Joint Chief Information Officer, Imperial College Healthcare Trust and Chelsea and Westminster)²*

*Breid O'Brien
(Deputy Director, Digital Health, NHSX)¹*

“I cannot think of an improvement use case in health and care that wouldn't involve digital at the moment; or a digital implementation piece that wouldn't have an improvement wraparound [...] but we're having separate conversations and are telling separate stories. There is so much opportunity if we start having joint conversations. How do we move from co-existence to a collaborative model? What are the things that make it happen?”

Three things we already know

1. Closer alignment between improvement and digital is **strategically important for the NHS and organisational leaders of improvement and digital**.³ Q members also recognise that introducing digital innovations effectively and working in a more integrated way across teams and organisations are key priorities for improvement.⁴
2. It is widely acknowledged that implementing digital technologies in health and care organisations is a complex, adaptive change process.^{5, 6, 7} **Applying improvement capabilities and approaches during design and implementation is beneficial** for enabling buy-in and ownership from the bottom up, and for testing how a new product or process is implemented to respond to local dependencies, relationships, contexts and procedures.^{7, 8, 9} By enabling people with improvement, digital, design and technical expertise to collaborate and work together, it will help to realise the potential of the collective skills and strengths of the health and care workforce.²

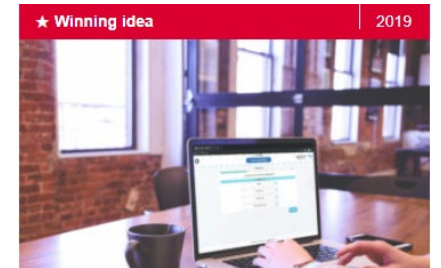
Three things we already know

3. We've heard from previous Q Exchange-funded projects how **valuable digital skills and expertise are for improvement initiatives**, and how much improvers have to learn:



“Stepping into the unknown world of digital development has been incredibly interesting and an area in which we are continually learning more about.” [Virtual Q! simulations and games – supporting online learning](#)

“The ICT and information governance people at the trust were the important ones and we didn’t think about those early enough.”¹⁰ [Reducing unnecessary out-patient appointments in kidney care](#)



What are the challenges and opportunities?

Challenge


While the pandemic necessitated a move towards digital to support remote working and delivery of care, there is still work to do to assess the impact of these changes and understand how to maximise the potential for digital technologies longer term.¹¹ Many of these changes will need to be reoriented and developed to meet the needs of the recovery and improve quality of care.¹²

These include:

- improving access and experience of care
- working collaboratively across systems
- ensuring solutions:
 - can work as part of a 'hybrid' offer
 - are achieving the outcomes that are important to staff, patients and carers
 - are cost-effective and enable high quality care in the long term.^{8,13}

Opportunity

This theme provides Q members with opportunities to build on collaborations and new ways of working between improvement, digital, operations and clinical teams developed in response to the pandemic. They can together embed sustainable changes to support long-term recovery and improvement for health services.

 *Has this sparked an idea for a project, or do you have learning to share on this topic?*
*Get ready to share with the community when Q Exchange opens for ideas on **Tuesday 15 February 2022***

Supporting service change, in particular the opportunity and need to enable care at home or in the community

Why this area of interest?

Through virtual consultations, remote monitoring and remote self-management tools, digital technologies have the potential to enable more care at home or in the community. This can benefit patients, staff, and the wider health and care system.

"I feel empowered, in control of my condition rather than it letting it control me."

Steve, a patient sharing his virtual ward experience in an NHS case study¹⁴



Four things we already know

1. There is a need for ‘real-world’ evaluation, testing and adaptation using improvement methods

Traditional evaluation approaches may not be appropriate or feasible for digital health products.¹⁵ Even if a piece of technology or service model has been shown to work elsewhere, improvement methods, approaches and data are valuable for helping to understand how it works in practice for different populations and contexts.

This includes:

- exploring potential issues related to health inequalities or access to technology
- how the technology affects the burden of treatment, workload or the skills-mix needed in a service
- how the technology interacts with existing systems, processes, pathways, cultures and ways of working.¹⁶

"Too often the temptation is to focus on the technology itself rather than on how people use [...] or experience it."¹²

Four things we already know

2. Co-design and collaboration are important

The importance and value of co-design shines through in the learning from evaluations of technology projects.⁹

Co-design and collaboration with a diverse mix of stakeholders from the early stages of a project (including patients, carers, staff, developers, data protection experts, community organisations, policy makers) ensures those with different expertise, expectations and perspectives can work together to solve emergent problems and sustain engagement at different stages of implementation.

This includes issues relating to privacy, clinical governance, consent, accessibility, suitability and acceptance for different groups, useability, procurement, fit with existing processes, sustainable funding and workload.^{9, 18}

“The co-design has been a fantastic experience and the end result of our work goes far beyond our initial expectations.”¹⁷

💡 Find out more about previous winning Q Exchange projects with knowledge of co-design with people who are vulnerable or often excluded:

★ Winning idea

2020

- [Making primary care accessible to women with experience of trauma](#)

★ Winning idea

2019

- [Supporting colorectal cancer patients self-management](#)

★ Winning idea

2019

- [Redesigning outpatients through inclusive participatory co-design](#)

Four things we already know

3. The value of collaborating as a system

Learning from digital change projects implemented during the pandemic highlights the inequality of digital capability and infrastructure across different population groups, organisations and parts of the health and care sector.⁸

This needs:

- funding and support to upgrade digital infrastructure* (particularly among the least digitally mature organisations);¹⁹
- local collaborations, strategic regional or local system leadership;
- shared resources and learning to help local health systems to work effectively together to minimise the risk that some parts of the local health system are left behind.²⁰

*which is out of scope for Q Exchange funding

4. There are a wide range of skills, capabilities and guidance needed, at all levels of the system, to make this work

For health professionals, communication skills are needed to increase confidence in conducting remote consultations, and digital skills to use technology alongside knowledge of data security and information governance.²¹

Decision making about the appropriateness of remote models of care involves a nuanced appreciation of the different risks and is complex.²²

As learning from implementing video consultations during the pandemic highlights, this requires enabling leadership, to create an 'ethos and infrastructure within which professionals could be creative and locally adaptive.'²¹

What can we learn from Q Exchange-funded projects?

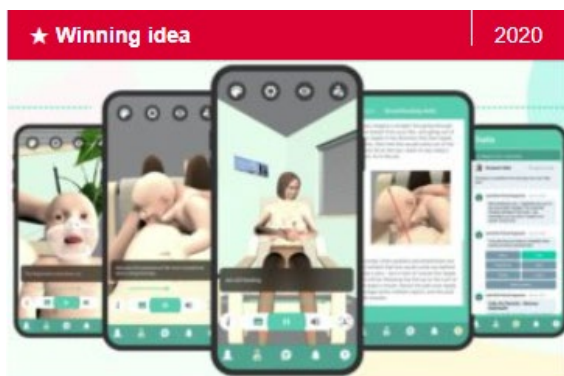
Embedding video consultation services inclusive of non-English speaking communities



This project, supported by a collaboration between secondary care, local authority and community sector organisations, aims to improve access, experience and take-up of video consultation services by non-English speaking patients. So far, their learning highlights the importance of developing relationships for collaborations. ***“The project has required a lot of ‘ground work’ i.e. relationship building, understanding the pressures that people are under and developing trust so that people don’t feel judged but are keen to work together to make improvements.”*** By engaging with different community groups, it helped to identify a barrier to uptake relating to poor experiences of services during the pandemic.

“This work touches on a lot of wider issues of trust and engagement with the hospital / NHS and the impact of the pandemic on relationships with health services.”

What can we learn from Q Exchange-funded projects?



Helping all families access top quality breastfeeding support

This is a pilot project incorporating a breastfeeding support app, LatchAid, within several NHS Trusts. Learning from their work so far highlights the benefit of accessing implementation and evaluation expertise from a university and an AHSN. The pilot has been designed for scale and will need a robust business case to secure ongoing licencing: ***“we have worked on meeting a higher level of data protection than required for this pilot, we have co-developed business cases for what this partnership would look like beyond the Q Exchange funding and pilot programme and have worked to build senior level buy-in across the board from the outset.”*** The team reflected the importance of keeping the technology development process agile: they needed additional time and costs to make improvements to the software, for seeking Trust approvals and information governance processes.

What can we learn from Q Exchange-funded projects?

The virtual hug of support



This project aimed to evaluate how patients best understand and want to consume health information, including testing digital information delivered through an avatar-led interactive programme. Their co-design process identified that there are ***“differences between what medical information clinicians feel needs to be portrayed and what information patients really want to hear about.”*** Through co-design they were able to ensure their resource includes information that matters to patients. Developing an interactive patient information programme has been shown to encourage people to engage longer with the content than standard patient information leaflets. They also had to overcome a barrier with existing paper-based processes within secondary care preventing them sending digital information to patients.


Co-designing NHS Near Me

Q Exchange funding supported the co-design of the next phase of implementation of a video consultation service, to enable people to access it at home. The co-design and use of systems thinking in the development of this service has been fundamental to its success.²³



What can we learn from Q Exchange-funded projects?

Q Exchange funding provides an opportunity to enhance digital change programmes to respond to this learning. Previous award holders have co-designed a specific aspect of development, implementation or evaluation as well as early-stage idea development and prototyping.

 *Has this sparked an idea for a project, or do you have learning to share on this topic?*
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*The role digital technology can
play in staff wellbeing*

Why this area of interest?

Concerns around staff wellbeing are front and centre for many Q members and organisation leaders. While wellbeing means different things to different people, it is a priority for health and care because of concerns for staff health and quality of life; the impact of stress and burnout on clinical performance; and the risk of staff leaving the profession, creating additional workforce and skills shortages.²²

There are different angles that improvement projects may take to address wellbeing:

using digital technology for staff-facing initiatives to promote wellbeing

- using digital technology to improve the quality and value of work, which in turn can improve staff wellbeing
- making the introduction and use of technology easier for staff.



Three things we already know

1. Staff-facing initiatives can use digital technology to promote wellbeing

Embedding a culture of compassion, psychological safety and Joy in Work are key components to improving quality and safety of care.²⁴

3. Co-design and collaboration is a valuable mechanism for understanding the experiences and impact on staff. The current Q Lab UK project is considering the role of staff skills and confidence in technology-enabled care. Emerging learning from contributors reinforces the value of genuine co-design to address barriers and issues of staff experience when implementing and using technology, the quality of work and the impact of role changes on professional identities and boundaries between different specialists.²⁷

2. Application of digital technology to improve the satisfaction, quality and value of work for staff

Evidence highlights that the application of digital technology can improve efficiencies and the quality of care that staff can provide. For example, reducing the time it takes for GPs to receive expert advice from specialists;²⁵ support patients to safely leave hospital to be cared for at home; take on more administrative tasks to improve the quality of work.¹⁵ Learning from recent projects highlights the potential for digital technologies to improve job satisfaction²⁶ and the ability for staff to work more flexibly has the potential to increase retention. However, some staff experience remote monitoring and consultations as demotivating and challenging for their sense of professional purpose and identity,²² making it an important concern for improvement efforts.

 More detail on co-design in [Supporting service change](#) section of this document

What can we learn from Q Exchange-funded projects?

Q members have used different digital tools to promote and implement initiatives to support staff wellbeing, and to foreground the importance of the skills needed for managing the relational and human side of change.



Psychology 4 Improvement

Now an active [online group](#) on Q's website and [Twitter](#) this project shares learning and resources that use psychological concepts to support change.

'Start Well>End Well'. Psychological safety through compassion, connectedness and courage

A project implementing a three-step model to enhance collaboration and wellbeing by fostering psychological safety and peer-to-peer support.



Creating the conditions for a culture of joy in work

A project to test and spread an approach to improve staff engagement and morale, using digital tools to enable collaboration and gather feedback from staff.

*Digital and improvement
communities: sharing skills and
perspectives between these
groups*

Why this area of interest?

The benefits of sharing skills and perspectives between the digital and improvement communities is important for ensuring teams have access to specialist expertise that exists across the system.

This includes expertise in:

- ICT and product development
- working with technology suppliers
- information governance, cyber security and data sharing
- co-design and community engagement
- change management, project management and strategic leadership.²⁸

“Recognising the more we could do together, the sum of our parts would be greater, has been really key [...] [It’s] this marriage of people who are working clinically, who understand the improvement and change at a people level, with the technical capabilities. [...] I’m never going to be a technical expert [...] but actually I don’t need to be if I’m working in close partnership with the teams”

Bob Klaber

(Director of Strategy, Research & Innovation and Consultant Paediatrician at Imperial College Healthcare NHS Trust)²

Two things we already know

1. Increasing both improvement and digital capability and maturity is important for enabling digital change

Learning from recent work highlights the importance of prioritising this increase in health and care.²¹ Establishing multi-disciplinary transformation teams can help to address issues with organisational and team siloes to enable people with different expertise and resources to work together.^{29, 30}

2. Building improvement capabilities across boundaries

This was a theme for a [previous round of Q Exchange](#).

We know from these projects, and others, that developing relationships across health and care is important, but it takes time. Teams need to remove barriers of language (specialist and technical jargon), identify and work with shared objectives in mind and encourage focus on the relational, human side of change.

What can we learn from Q Exchange-funded projects?

Q members have undertaken a range of projects to improve collaborations and build improvement capabilities across boundaries.



Everyone can be at the front line of Quality Improvement

Drawing on learning from the 'Bedside Learning Coordinator' role from the London Nightingale Hospital, this project is adapting the role within a new organisation to upskill and enable staff from all disciplines, clinical and non-clinical, to be part of improvement.

Virtual QI simulations and games – supporting online learning

This project is moving face to face improvement methods to virtual settings and the team have worked with a digital developer to create a digital QI game.



Quality coach development programme

This project co-designed resources and an approach for upskilling front-line workers in QI.

What can we learn from Q Exchange-funded projects?



Improvers without borders

This project aimed to develop improvement capabilities across a local health system, and found that removing jargon and taking a systems approach was important.



Hexitime the Healthcare Skill Exchange Time Bank

Hexitime is an online time banking platform that allows people in clinical and non-clinical roles to exchange time for improvement-related work. The collaborative processes of Q Exchange enabled two separate healthcare time banking projects to come together, providing funding and feedback from members to develop a prototype platform.³¹ Hexitime is [supporting](#) another Q Exchange-funded project, [Making data count](#) (2018) to spread learning to upskill analysts, clinicians and managers to make better use of data.³²

*More general learning on digital
change projects*

More general learning on digital change projects

Lack of evidence on effectiveness and efficiency makes buy-in and ongoing funding more challenging

Digital projects are easier to implement if there is clear case of their benefits and cost-effectiveness; even marginal benefits are hard to justify with the opportunity cost of implementation.⁹ Evidence on the impact on patient outcomes from new remote models of care is currently limited, and can affect projects securing funding to support ongoing licensing.^{8, 26}

However, evidence highlights several efficiencies (for staff and patients):

- reducing travel
- early identification of deteriorating patients through remote monitoring
- reassuring patients can result in a reduced reliance on emergency care
- improving the person and staff-centredness of care delivered.³³

Learning from Q Exchange-funded projects suggests that some evaluation measures may not be appropriate for remote models of care³⁴ and there are benefits for using co-design to understand what outcome measures matter to patients. Using digital and analytical expertise can also enable improvers to draw on, and make sense of, better quality data to consider outcomes more objectively.³⁵

More general learning on digital change projects

Aligning to organisational and system priorities and capabilities is important

New digitally-enabled models of care that were introduced during the pandemic need to be reviewed and adjusted to align with wider health and care priorities in order to be sustainable in the long term and to fulfil the potential to improve services.

This includes:

- progressing existing work to address waiting times and improving access to services
- aligning to the personalised care agenda
- increasing integration of health and social care
- applying technology to address inequalities and poor outcomes.⁸

The time needed for scoping digital change projects is often underestimated

Q Exchange teams frequently report that they underestimated the time needed for scoping and completing documentation and processes linked to data protection, security, information governance and procurement.

Co-design is something that teams also say takes longer than planned. Learning from others highlights how it is useful to spend time assessing the digital maturity and capabilities within the organisation. Technology can then be selected to match the infrastructure and skill set of the organisation, and ensure fit into existing processes and workflows.^{8, 36}

More general learning on digital change projects

Consider the human resource needed to support implementation and ongoing use

A common challenge reported by Q Exchange teams is how to engage busy health care staff when improvement work is considered discretionary. Successful implementation will need funding to backfill roles. This will free up staff time to be involved in development, delivery and co-design to understand impact on workload and ‘work as done not work as imagined.’³⁸ Having a detailed change management plan and project management support is identified as being useful for work that involves collaboration with different teams and ongoing involvement of technology providers; however, teams said that recruitment processes can be lengthy and a barrier to timely delivery. Looking to partners and collaborators elsewhere in the local system may be helpful to overcome this challenge by utilising the specialist knowledge and expertise in project management and digital innovation within ICSs, CCGs, AHSNs.⁹

Learning from Q Exchange-funded projects

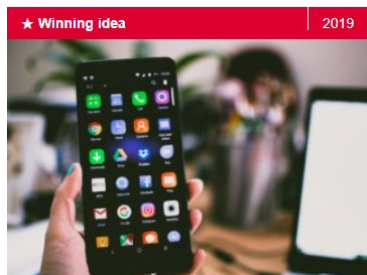
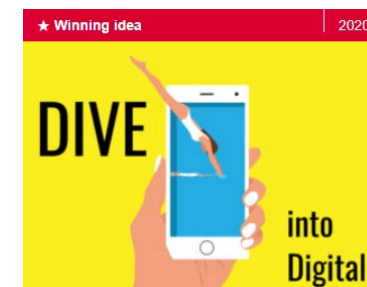


Talk To Us Together! Enhancing Parent Experience Of Neonatal Encephalopathy

This project is developing a new app to embed digital communications with families. They shared that they would benefit from project management support, and have had to learn a lot about IT regulations, procurement processes and navigating NHS bureaucracy. Sourcing ideas and learning from others in the Q community provided them with a useful framework to undertake parent engagement. But this potentially came too late in the process as it highlighted a difference in understanding of the problem from clinicians' and parents' perspectives.

Dive into Digital: Enabling Digital Inclusion

This project aims to develop and upskill staff in digital by creating an online database of digital literacy learning resources and training digital mentors and champions. However, they have struggled to get staff time to attend training, and participants have had mixed experiences of hybrid, face to face and remote attendance options.



Gamification for Human Factors

This project developed an app to engage staff with Human Factors training. Their experience of developing the app highlights the importance of clarifying roles and responsibilities in the partnerships needed for this type of technical product development, including around ownership of intellectual property.

Learning from Q Exchange-funded projects

The importance of aligning service-level improvement projects involving technology, with broader organisational and system priorities is illustrated by two contrasting experiences from Q Exchange-funded projects.



Digital integration at primary-secondary care interface to streamline blood tests

The project was delayed while waiting for Trust approval of the technology. But as a result of this process, the Trust will be expanding the application of the technology to more services, resulting in wider improvements for the organisation.


Using telehealth to support patients on cancer treatment at home

In contrast, this project realised they were relatively isolated within the trust, and after meeting with the digital team within their CCG they recognised that their project would need to be put on hold while a new, trust-wide remote monitoring system is put in place.



Learning from elsewhere

- The NASSS framework has been frequently used in evaluations of technology projects as it provides a framework to understand the complex interdependencies within the system that affect success.³⁸ The research team behind this have further developed their understanding of what influences take-up of a technology innovation based on evaluation of remote services during the pandemic. The resulting PERCS framework, provides a useful tool for design, that incorporates different dynamics and considerations including risk, digital maturity and digital inclusion.¹⁶
- Digital Playbooks provide solutions and best practice examples from different NHS organisations, searchable by specialty.³⁹

 *Has this insight sparked an idea for a project, or do you have learning to share on this topic?*
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