Reflecting on and evaluating the impact of our Wave 1 Innovation Test Bed

CARE CITY

Foreword

We have come a long way since the announcement of our success as a Wave 1 Innovation Test Bed back in 2016. As one of seven Test Beds funded by NHS England and the Department of Health and Social Care, we committed to testing high-potential digital technologies combined with new service pathways and systems. Our aim was to do work of benefit to East London and of significance nationally. We sought to improve the outcomes and experiences of healthcare, and to reduce its cost.

The testing generated a lot of learning, which is now put to work, improving services in East London and helping solutions to spread beyond our locality. This report details these findings and shares some of our successes, which include the development of a new pathway for finding and treating atrial fibrillation and the roll out of a new social prescribing tool across GP practices in Barking and Dagenham.

Care City is an innovation centre for healthy ageing and regeneration, and every project we take on is about improving both health and the determinants of health. We believe the challenge of ageing is an opportunity to re-make places and turn around lives. Being part of the Test Bed programme has felt like a validation of that vision, and it has strengthened our work and our partners.

A huge thank you to all of the partners, stakeholders and patients and service users who participated in this programme. Also a big thank you to the Care City team, who were enthusiastic and relentless in their quest not just to put new ideas to work, but to really make them work.

We are delighted to now be working as part of the second Test Bed programme, and to be developing new programmes of work at Care City in parallel. For all that excitement, we agree with the Long-Term Plan – the benchmark for a Test Bed is the difference it makes for citizens.

John Craig, Chief Executive

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As our work on Test Bed Wave 2 starts to build momentum we reflect on our evaluation from Wave 1 to ensure key learnings are robustly adopted and embedded.

Our aim for Wave 1 was to help improve our health and care system and patient pathways and promote healthy ageing across a million-strong population in North East London. By working with researchers, innovators, clinicians, patients and the community, we wanted to understand the challenges that are being faced by people living with dementia and long term conditions, and their carers and families, and test and implement innovative solutions designed to improve quality of life and independence.

The data from the Test Bed can now be used to understand the benefits of each innovation and, where successful, assist with implementation and ultimately feedback to a health and social care system to enable it to become good at identifying, implementing, testing and sharing innovation.

> “The data from the Test Bed can now be used to understand the benefits of each innovation...”

Identifying the Need

The Five Year Forward View recognised the possibility of combining technology with service change or other interventions to deliver improvements to patient experience and health outcomes, at the same or lower cost to the health and social care economy, and in 2016 announced Care City as one of seven 'Test Beds' and the only London-based collaborative.

Our geography includes the London Borough of Havering, which has the highest proportion of older people and, although Barking and Dagenham is one of London's youngest boroughs, it's population does not age healthily, with comparatively low healthy life expectancy.

As with other parts of the country, our region also faces the challenge of caring for and supporting a growing population of people with Dementia. We therefore set out to facilitate access to innovations intended to support more person-centred care, and peer-to-peer support intended to reduce isolation.

Did you know?

Across our Boroughs of Barking and Dagenham, Havering, Redbridge and Waltham Forest…

People living with long term conditions

- There are approximately **69,000** older people living with multiple long term conditions
- In 2014, **2,734** people over 65 were predicted to have been admitted to a hospital because of falls. This figure is predicted to rise further to **3,766** by 2030

Carers

- There are over **21,000** people who provide unpaid care for more than 50 hours a week
- **1 in 9** workers is also a carer – and **20%** will eventually give up work
- **66%** of people with dementia are supported by unpaid carers

Dementia

- In 2014, **9,465** people over the age of 65 were thought to have dementia across the four boroughs – this will rise to **13,437** by 2030
- **1 in 4** patients in hospital beds have dementia

Did you know?

In the UK...

People living with long term conditions

- 4 million older people in the UK have a limiting long standing illness, this could be over 6 million by 2030
- If rates continue to rise, older people with moderate or severe disabilities could increase by 54% by 2022
- In total, around 70% of the total healthcare spend is attributed to caring for people with long term conditions
- It is predicted that over £14 billion will be spent on disability care by 2022

Carers

- The 2011 Census figures for the UK show an 11% rise in the number of carers since the last Census in 2001 – increasing by over **620,000 to 6.5 million** in just 10 years
- Over **2 million** people have given up work at some point to care for loved ones, **3 million** have reduced working hours
- **1 in 5** people aged 50-64 are carers
- Almost **1.3 million** people in England and Wales aged 65 or older are carers
- In 2014, almost half of carers (**49%**) said they feel society does not think about them at all
- Most carers care for just one person (**83%**), but **14%** care for two people and **3%** are caring for at least three people

Dementia

- In 2013, **1,340,000,000 hours** were spent for caring for people with dementia, that's more than **150,000 years**
- **1 in 20** people with dementia are under 65
- Unpaid Care for Dementia equates to **£11.6 billion**
- The total cost of dementia to society is **£26.3 billion**, with an average cost of **£32,250** per person

This data is courtesy of http://www.horizonscanning.org

Overview of the Test Bed Innovations

Having initially selected nine innovative interventions, we conducted substantive tests of three. These technologies were combined with service changes to deliver more effective patient pathways:

For those at risk of falling

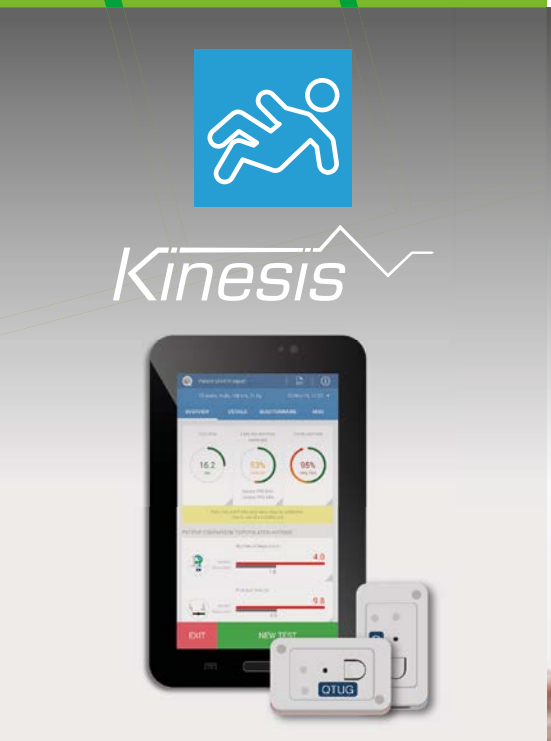
Kinesis QTUG™ technology was used among over 65s by pharmacy assistants in community pharmacy and by health care assistants in primary care to assess mobility of patients. Kinesis QTUG™ assesses falls risk and mobility providing objective assessments of gait, mobility impairment and frailty using body worn sensors combined with a clinical risk questionnaire. Based on the outcome patients are then prescribed a set of exercises, aimed to reduce their risk of falls.

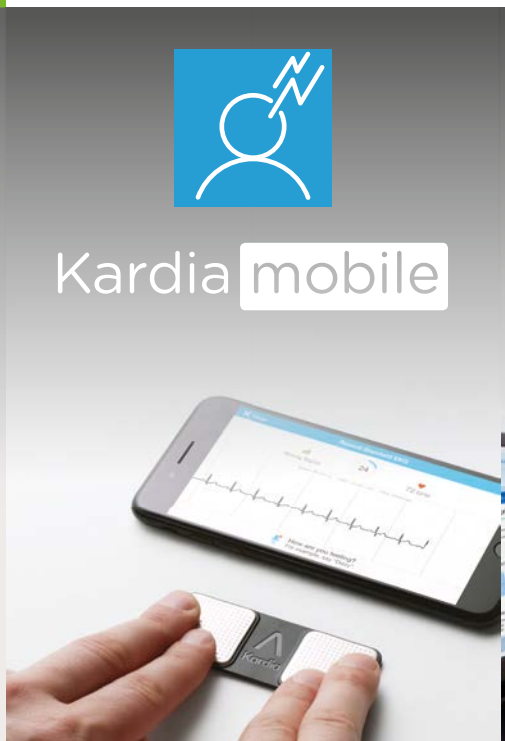
For those at risk of a stroke

KardiaMobile™ technology is being used in Barking, Dagenham and Redbridge GP's to screen patients for atrial fibrillation. In Waltham Forest, a new Atrial Fibrillation (AF) pathway has been piloted where patients with an abnormal screen result from KardiaMobile™ are referred from community pharmacy, are triaged and seen within two weeks for confirmed diagnosis and treatment initiation, where appropriate, at a One Stop AF Clinic at Whipps Cross University Hospital, Waltham Forest.

For those with unmet health and social needs

For those with unmet health and social needs such as low mood, weight loss and social isolation, a digital social prescribing tool has been developed by HealthUnlocked (HU). HU has been embedded into GP patient management system, EMIS and was enabled within 10 GP practices, allowing GPs to generate and email to patients a tailored set of recommendations for community services and online resources to support their wellbeing.





Key Findings

For those at risk of falling

The use of Kinesis QTUG™ by health care assistants in General Practice led to an increase in recorded falls risk assessment and, among those assessed, an increase in the provision of falls risk advice and referrals to falls prevention services, compared to comparator practices.

The testing of the combination of Kinesis QTUG™ with the Salaso online platform of physiotherapy exercises is ongoing. Health economic analysis suggests that this innovation could be cost-effective but only if compliance is consistent with the literature and could be more cost-effective if targeted at the over 75s.

A new pilot is underway for healthcare assistant-led Gait Clinics at a GP practice in Barking and Dagenham using GaitSmart. Work continues with the CCG to explore the potential of gait analysis for community-based falls prevention.

> “The use of Kinesis QTUG™ by health care assistants in General Practice led to an increase in recorded falls risk assessment.”

Key Findings

> “... a patient to access treatment has been reduced from an average of twelve weeks nationally, down to 2-3 weeks.”

For those at risk of a stroke

Use of KardiaMobile™ by health care assistants in General Practice led to an increase in AF diagnoses not seen in comparator practices but was not associated with an increase in the proportion of diagnosed cases that started on anticoagulation within 3 months of diagnosis. Screening in community pharmacy was shown to be feasible but onward referral to general practice was inconsistent. However due to the ease of use of the technology, counter assistants working under the supervision of pharmacists could conduct the testing, bringing less evidenced benefits such as workforce skills development, transforming an individual's sense of their career and potential.

Health Economic modelling of the pathway suggests that annual screening of over 65s using such a pathway would be a cost-effective use of NHS funds. The pathway appears cost-effective even with low utilisation of the clinic and a low rate of confirmed diagnoses.

Evidence suggests that the new pathway that enables direct referral to a one-stop clinic at Barts Health is quicker, as the time for a patient to access treatment has been reduced from an average of twelve weeks nationally, down to 2-3 weeks. Further evidence suggests it also has the potential to prevent 1,600 strokes nationwide.

The BHR Provider Alliance has committed to rolling out our Atrial Fibrillation (AF) Pathway across Barking, Havering and Redbridge, working with local community pharmacies and hospitals to find and treat AF and prevent strokes. The pathway was also recognised by the AF Association and entered into the Healthcare Pioneers Report 2018, and we are in discussions with three others health systems about the adoption of the pathway.

For those with unmet health and social needs

The HealthUnlocked social prescribing tool was successfully incorporated into EMIS and used by 67 GPs across 10 practices to send social prescriptions to patients by email. The prescriptions related most frequently to resources on healthy eating, weight loss and getting active. Just under half of patients emailed a social prescription clicked through to access it.

The HealthUnlocked social prescribing tool has now been scaled across GP practices in Barking and Dagenham, and we are in advanced discussions with a second East London borough about a second borough-wide implementation.

> “Just under half of patients emailed a social prescription clicked through to access it.”

Key Lessons

NatCen, Social Research provider, conducted a number of interviews with Test Bed participants to gain additional feedback on Test Bed participation. Key findings included:

Training

- Delivery partners were offered additional support throughout their time in the project after the initial innovation setup-related training. We identified that some frontline sites also received extra support from the innovators when a particular technology used was technically more complex.
- Due to capacity and staff availability, broader training of GP practice staff and other delivery partners was shown to be challenging to coordinate. To address this issue, Care City has made extra efforts, including more flexibility in offering training on site and multiple attempts to arrange training sessions.

> ***I think one of the lessons learnt was the importance of practical use of the AliveCor (known as KardiaMobileTM) and from role playing to demonstrate the benefit. So whilst, in theory, you can watch a YouTube to show you how to use it, that's helpful, but actually there are some fine-tuning that could optimise the traces to give us the greatest benefit.***
> **Delivery partner, KardiaMobile™**

Care City is now working with partners including Barking and Dagenham College, Skills for Care and the Community Education Providers Network to develop training packages – possibly including apprenticeship programmes – to turn its service innovation work into structured learning opportunities for staff. The aim is to harness the opportunities created by innovation to help local people to progress into and through health and care careers.

Recruitment

- The more demanding the innovation for both the delivery partners and the patients/service users, the more difficult the recruitment process.
- Recruiting patients face to face is better than over the phone. More personal involvement is emphasised as potentially very beneficial for developing rapport with the patients and for stimulating their interest.

> ***It was pretty much informing them of the service that was available; asking them if they've had a recent blood pressure check; informing them that we could offer a blood pressure check. And, alongside it, an ECG check, which used our portable machinery… so then we would tell them that, 'This is what we're willing to offer.' If they were available to do it, if you were free, you could have done that with them. If not, later book a date to come in and get that done.***
> **Delivery partner, KardiaMobile™**

Relationships and Communication

- Innovators sometimes found it challenging to receive sufficient feedback from the frontline staff regarding the challenges experienced during testing. However, in most cases concerns around implementing innovations were down to work load pressures.
- More flexibility, openness to feedback and dialogue and the ability to respond to local requirements of the delivery partners were emphasised as key to success of innovations and smooth communication.

> ***Care City were the hands-on delivery arm in terms of the project management of the process and making it happen. So my remit was more clinical support, clinical advice and, where possible, act as an enabler amongst the profession.***
> **Delivery partner, KardiaMobile™**

Benefits for Innovators

- For innovators the benefits of the programme were related to the opportunity to test innovations in a real world setting.
- The programme enabled innovators to transition from delivering a consumer product to providing a service and that this helped them understand where their product might fit within the broader NHS structures.

> ***Tests really only drive forward if our provider partners think it's solving challenges that they face day-to-day. That is what real world testing is about. It's not an artificial testing environment. We are working to make the case for testing within the Test Bed, and as a result I think we kind of learnt quicker, because the feedback we got was very real as to what did excite people about the innovations we were testing, and what they felt was working less well.***
> **Delivery partner, KardiaMobile™**

> This helped innovators understand where their product might fit within the broader NHS structures

Care City has built on the lessons learnt through the Test Bed programme to develop further innovation support for the health and care system. Care City is working with UCLPartners to deliver and Innovation Exchange for East London – a programme funded by the Office for Life Sciences to help leaders and clinicians connect and collaborate with innovators – and it is now part of the second Test Bed programme. Care City was the only Test Bed to progress from Wave 1 of the programme to Wave 2.

Sustainability

- Local capacity of delivery partners seems to be an important determinant of sustainability of the use of innovations.
- The other element of sustainability is the increased openness and engagement of delivery partners, and their networks, to working with innovations beyond the life of the programme.

> ***Even though we've near enough completed the pilot, we're still actually using it for our over-75s because we think it's a tool worth using.***
> **Delivery partner, KardiaMobile™**

The Test Bed programme provided a fantastic opportunity for Care City to build its knowledge, networks and traction within the health and care system. Now a sustainable social enterprise, currently delivering eight funded projects, Care City is now preparing to spin out from North East London Foundation Trust (NELFT), its host Trust, as an independent community interest company.

Successful Test Bed Collaborative Working

Our Test Bed was a multi-stakeholder partnership between organisations representing health and social care providers and commissioners; academia; industry; the voluntary sector and patient networks. Many thanks to you all.

Our partners include:

AliveCor®

Kinesis Health Technologies

Canary Care

London Borough of Barking & Dagenham lbbd.gov.uk

East London Health & Care Partnership

NHS England

HealthUnlocked

NELFT

GaitSmart™

UCLPartners Academic Health Science Partnership

Next Steps

As with many innovations, further spread is likely to be reliant on sharing of learning from implementation and on local adaptation rather than simple roll-out. To this end, the development of new resources such as a service blueprint, standard operating procedures etc. for sharing with other regions is particularly valuable. Should you be interested in learning more about these resources, please get in touch.

For more information

An in depth report that summarises an evaluation of our work was conducted by a team of Operational Researchers and Health Economists from University College London. It had two overarching aims: to assess the extent to which the innovations selected by Care City were adopted by the local system, assessing their likely impact through analysis of routinely available data and, where appropriate, health economic modelling; and to identify broader learning relevant to the design and operation of an innovation Test Bed within this and other health and social care systems.

The evaluation report can be read in full at **www.carecity.london/publications/reports**

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