TINDER FOUNDATION

HEALTH & DIGITAL:
REDUCING INEQUALITIES, IMPROVING SOCIETY

An evaluation of the Widening Digital Participation programme.

JULY 2016

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FOREWORD

Anu Singh,
Director of Patient and Public Participation and Insight, NHS England

Widening Digital Participation in Health

Just over three years ago, NHS England embarked on a journey with Tinder Foundation. Our partnership had a clear mandate which lent its name to the programme: Widening Digital Participation.

The programme started in July 2013 to address the challenges of reducing health inequalities, engaging with groups at risk of poor health and increasing digital inclusion. Yes, this would save money in the long run, but with digital skills, service users can access online health resources like www.nhs.uk, be involved in their own care and help to increase positive health and wellbeing.

In our changing world, most information, social interaction, shopping and services like banking are now online and accessed using computers and smartphones. An estimated 12.6 million people in the UK do not have the basic skills needed to make use of some of these services. Research suggests that these people are most likely to be socially excluded, hard to reach, and suffer from poor health.

Borrowing the phrase from Martha Lane Fox, this programme was aiming to 'reach the furthest first' and not leave anyone behind.

As we continue to implement the Five Year Forward View, we will continue to try and improve the NHS by becoming better partners with voluntary organisations and local communities. We will continue to promote self-care, and support people living with long term conditions to manage and make decisions about their own health and wellbeing.

Hopes for the future

The work of the Widening Digital Participation Programme has laid a very firm foundation for one of our key priorities which is to tackle health inequalities. We know that there is a strong correlation between digital exclusion and health inequalities. We will address this via our vision set out in the Five Year Forward View by further increasing the digital skills, knowledge and confidence of those people who experience health inequalities and have been previously excluded from fully participating in their health and care. We will do this by ensuring that digital health literacy is addressed alongside our work on and support for self-care.

We also know that we cannot do this on our own – so we will work alongside our colleagues in other parts of the system to ensure that digital health is an integral element of digital skills training and digital inclusion support and that it is integrated into lifelong learning, particularly in communities which experience the most health inequalities.

Pat. Doncaster West Development Trust.
Digital health literacy is being addressed alongside support for self care.

Ron. Inspire Communities, Hull.
Giving people digital health skills means they are empowered to take control of their lives.

Helen Milner,
Chief Executive, Tinder Foundation

Digital health skills: Reducing inequalities, improving society

With all of the challenges we currently face as a society, and with all of the pressures on the NHS, giving people digital health skills may seem like it's not that much of a priority.

I'll try and explain why it is.

There are 12.6 million people in the UK who don't have basic digital skills and these people are those who are most likely to be suffering from poor health. They are also those most likely to be further disadvantaged by age, education, income, disability, or unemployment.

The fact is that there is a huge crossover between those who are digitally excluded, those who are socially excluded, and those at risk of poor health. The Widening Digital Participation programme aimed to see how action on one front could influence the others.

Ron first went into Inspire Communities – a UK online centre in Hull and one of our pathfinder centres for this programme – because he was about to be sanctioned by Jobcentre Plus for not meeting his job search commitments. Ron was homeless, had a gambling habit, as well as serious mental health issues, including anxiety and depression. He was living in a tent on the motorway, on the occasional pot noodle and coffee. He was often hungry and cold, and his physical and mental health were going downhill.

Part of the problem was that Ron's relationship with his GP surgery had deteriorated, and he refused to go. With the help of Inspire Communities, he was able to look at NHS Choices for advice on managing his symptoms, and to find a new GP. He was able to register and make an appointment online without having to run the gauntlet of travel, receptionists, and other patients.

Plugging him back into the healthcare system was key in helping to connect him to the wider support he needed – and digital was key in doing this. Now he's found new housing, taking an active role in his own healthcare, meeting his Jobcentre Plus obligations and dealing with his gambling addiction.

Digital matters. Digital health matters.

Ron's story isn't just a one off. Throughout the programme, we've found that giving people the digital health skills they need means they're empowered to take control of their health, improving the ongoing management of chronic health conditions, and helping them to interact better with health and social care services.

We've also seen how digital inclusion can improve the social determinants of health – with better digital skills improving prospects for employment, income generation, educational achievement, and social connections. 52% of participants said they felt less lonely or isolated, and 62% stated that they felt happier as a result of more social contact. More than half said they have since have gone on to use the internet to improve their mental health and wellbeing.

On top of this, the programme has also shown that improving digital health skills has the power to reduce the pressure on frontline NHS services. By helping people to move non-urgent medical queries from face-to-face and emergency channels to online ones, we found we could potentially save the NHS an estimated £6 million a year, representing a £6 return on investment for every £1 spent on the programme in year three.

In summary, The Widening Digital Participation programme – and the local partnerships between UK online centres and local health and care providers that it has nurtured – has been proven to drive up the quality of care and drive down both health inequalities and health costs, ultimately improving society as a whole. And that's definitely a result worth celebrating.

EXECUTIVE SUMMARY

In July 2013 Tinder Foundation and NHS England began the three-year Widening Digital Participation programme, aiming to help more than 220,000 people improve their digital health skills. There is a huge crossover between those who are digitally excluded, and those at risk of poor health and the project aimed to provide people with digital skills to allow them to take charge of their own health. As the health service is becoming increasingly digitised, the Widening Digital Participation programme has aimed to ensure that inequalities resulting from digital exclusion don't become more pronounced.

The programme did this through:

- Building a Digital Health Information network of hundreds of hyperlocal providers, offering face-to-face support to help people improve their skills.
- Developing digital content relating to health, hosted on the Learn My Way platform (www.learnmyway.com) which supports people to access health information online and learn how to complete digital medical transactions.
- Funding a set of Innovation Pathfinder organisations, which tested innovative approaches to helping people improve their digital health skills.

The programme had a particular focus on hard-to-reach communities, where health outcomes tend to be worse.

This report presents an evaluation of the key statistics, themes and learnings from the final year of the programme, as well as providing a summary of the key findings across the three-year programme.

KEY FINDINGS

Reach of the programme

The Widening Digital Participation programme has had significant scale and reach, with:

- **81,049** people trained to use digital health resources and tools in year three [1]
  - Building on the 140,892 trained during the first two years of the programme.
  - Giving a total to date of **221,941 people trained**.
- **152,005** people reached with messages promoting digital tools and resources that could help them manage their health [2]
  - Plus 235,465 reached from the first two years of the programme.
  - Giving a total of **387,470 people reached**.
- **3,694** people trained as Digital Health Champions or volunteers to help promote the awareness and use of digital health resources.
  - Alongside the 4,444 from the first two years of the programme.
  - Giving a total of **8,138 volunteers**.

221,941

people trained to use digital health resources and tools over three years.

The programme has targeted the most vulnerable patients. Of the learners supported by the programme through the Learn My Way platform: [3]

- **82%** fall into at least one category of social exclusion [4]
- **60%** are in receipt of benefits.
- **44%** are disabled.
- **34%** are unemployed.
- **19%** are aged 65 or over (with a further 21% aged 55-64).
- **16%** are from BAME groups.

Impact on learners

- **41%** of those surveyed say they have **learned to access health information online for the first time** (a further 32% have learned to do this more effectively).
- **65%** of respondents feel **more informed about their health.**
- **59%** of respondents feel **more confident using online tools to manage their health.**
- **52%** of respondents feel **less lonely or isolated** and **62% feel happier as a result of more social contact**.

> "I feel that I can talk to my GP as an equal. I am able to get my point across and we are now managing things together. I feel that I have got some sort of control back and I'm not going to lose that again"
>
> Learner, South Tyneside.

After learning about using the internet to manage health:

- **56%** of learners went on to find information on the internet about **health conditions, symptoms or tips for staying healthy.**
- **54%** of learners in need of non-urgent medical advice said they **would now go to the internet before consulting their GP**, to look at sites such as NHS Choices.
- **51%** of learners have used the internet to explore **ways to improve mental health and wellbeing**.

1. 'People trained' refers to those that were actively supported to use digital health services and completed the health courses on Learn My Way at www.learnmyway.com/what-next/health.
2. 'People reached' relates to individuals that have been made aware of digital health resources through the programme, but may not have completed the health courses on Learn My Way.
3. Figures obtained through Tinder Foundation learner survey, administered by IFF Research. Further details can be found in the 'Monitoring and Evaluation: Objectives and Methods' section.
4. UK online centres' learners are defined as socially excluded if they are unemployed, disabled, in receipt of benefits, live in social housing or are homeless, or have an annual household income that defines them as in being in poverty using the HBAI method.

Through the Innovation Pathfinder centres, the programme has also enabled successful approaches to be developed, adapted and tested which engage people from specific target audiences, ensuring that we are '**reaching the furthest first**', including:

- People with dementia
- Carers of people with dementia and other unpaid carers.
- People with learning difficulties or disabilities.
- Young people (including those at risk of offending).

These target groups corresponded with those cited in the National Information Board's 'Personalised Health and Care 2020: A Framework for Action'.

The impact on frontline services

The programme has had a significant impact on health services, with people now using the internet as their first port of call for information.

- **21% of learners made fewer calls or visits to their GP**, with 54% of those saving at least three calls in the three months before being surveyed and 40% saving at least three visits over this period.
- **10%** of learners **made fewer calls to NHS 111,** with 42% of those saving at least three calls in the three months before being surveyed.
- **6% of learners made fewer visits to A&E**, with 30% of these saving a minimum of three visits in the three months before being surveyed.
- **29% of learners have gone online to find health services**, such as looking for a new GP.
- **22% of learners have progressed to booking GP appointments online** and **20% have ordered repeat prescriptions online**.
- **17% of learners have gone online to rate or review their GP or another health service** they have used. [5]

This behaviour change has resulted in significant cost savings to the NHS. Our evaluation has found potential annual savings of:

- **£3.7m in saved GP visits**
- **£2.3m in saved A&E visits**. [6]

These savings alone represent a return on investment of **£6.40 for every £1 invested in year three of the programme**.

Digital inclusion and new models of care

The Widening Digital Participation programme's third year has provided a platform to test innovative care models, including better ways to connect the NHS with digitally-enabled staff and patients, including:

- Providing public WiFi in ward settings alongside the provision of mobile devices.
- Making referrals to digital health training.
- Training clinical staff and other health professionals to be Digital Champions.

£6m

potential savings from reduced GP and A&E visits in year three of the programme.

5. Data from Tinder Foundation progression survey, administered by IFF research. Sample sizes vary for each question.
6. Calculated by extrapolating survey responses across the number of people trained and using a cost of £45 per GP visit and £132 per A&E visit, taken from CEBR (2015) "The economic impact of Basic Digital Skills and inclusion in the UK" and Department of Health (2015) "Reference Costs 2014-15", respectively. See Appendix B for a full calculation.

1. INTRODUCTION

Tinder Foundation and the NHS Widening Digital Participation programme

The NHS Widening Digital Participation programme ran from July 2013 to April 2016. The £2.7 million programme was funded by NHS England, and aimed to support people to improve their digital health skills. The idea was to see how improved digital health literacy could improve the health outcomes for groups most likely to experience health inequalities.

In year three, the programme aimed to:

- Raise **150,000** people's awareness of digital health resources and tools.
- Train **100,000** of these people to learn how to use digital health resources and tools.
- Encourage take up of online transactional services such as appointment booking and ordering prescriptions.

Tinder Foundation and the NHS Widening Digital Participation programme

Tinder Foundation is a leading digital inclusion charity, with a vision of a world where everyone benefits from digital technology. The organisation is committed to supporting people in some of the hardest-to-reach communities to improve their lives through promoting digital literacy. The organisation works with a 5,000-strong national network of hyperlocal UK online centres, which support people in disadvantaged communities. Since 2010, Tinder Foundation has supported over 1.8 million people to improve their digital skills.

The UK online centres network is a diverse collective of local and grassroots organisations which provide a range of support services – including digital skills – to their communities. UK online centres all adapt their programmes and support to the needs of local people, for example through running outreach sessions at accessible locations within the community and tailoring learning to individuals' needs and motivations. Learners supported by the UK online centres network tend to be resistant to formal educational programmes and this informal approach helps to break down barriers to learning. In addition, the UK online centres network coordinates over 17,500 volunteers who help people in their communities to develop digital skills.

Tinder Foundation provides a range of support and resources, including national advocacy, training, access to the Learn My Way learning platform, funding and marketing support.

The Widening Digital Participation programme provided grants to more than 200 UK online centres each year to build digital health into their existing programme of community-based digital skills training and wider support services. Unfunded centres in the network were able to access resources and guidance and contribute to the programme if they wished.

Background and policy drivers

An estimated 12.6 million adults (23%) in the UK lack basic digital skills, and 10.2% of adults (5.3 million) have never used the internet. [7, 8] With information and services increasingly moving online, there is a challenge to ensure everyone can access what they need so that the digital divide doesn't deepen social exclusion.

> "Those who suffer social exclusion are at least four times more likely to be digitally disengaged than those who are more socially advantaged" [9]

7. Go ON UK (2015) "Basic Digital Skills, UK Report 2015"
8. ONS (2016) "Statistical Bulletin: Internet Users 2016", https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/bulletins/internetusers/2016
9. Price Waterhouse Coopers (2009) "Champion for Digital Inclusion, The Economic Case for Digital Inclusion" http://parliamentandinternet.org.uk/wp-content/uploads/Final_report.pdf

Digital exclusion is closely linked to other measures of social exclusion, meaning that statistically, digitally excluded people tend to be at greater risk of poor health. [10]

The creation of the Widening Digital Participation programme marked a significant commitment from NHS England to supporting people at risk of poor health outcomes, to ensure they are not further excluded by the move to 'digital by default'. Engaging those at risk of poor health and helping them to improve their skills has the potential for impact on multiple fronts, namely:

- Enabling individuals to seek out information online, increasing their ability to self care.
- Reducing inequalities by empowering people to seek information online, choose the most appropriate health intervention and comment on content and services.
- Cutting healthcare costs by steering patients towards more economical digital alternatives to traditional face-to-face contact with health services (where appropriate).
- Helping people to find work and education opportunities digitally, as well as overcoming loneliness and isolation, all of which lead to better health outcomes.

In 2014, the NHS published its Five Year Forward View, embedding the principles that led to the creation of the Widening Digital Participation programme. The report included the intention that "the NHS will become a better partner with voluntary organisations and local communities", as part of a move towards enabling people to better manage their own health. [11]

The report also highlights the role of digital technology to empower patients and communities. It is within this wider context that Widening Digital Participation – particularly its community-based delivery model through UK online centres – has relevance.

In December 2015, during the final year of the programme, Baroness Lane Fox made a number of recommendations to the NHS National Information Board to increase take up of internet enabled services in health and care. [12] These recommendations align closely with the work of the Widening Digital Participation programme, confirming the clear need and for programmes that address these issues. The recommendations made were:

- Reaching the 'furthest first' – making sure those with the most severe health and social care needs, who are the least likely to be online, are the priority in new digital tools being used across the NHS.
- Providing free WiFi in every NHS building.
- Building the basic digital skills of the NHS workforce to ensure that everyone is able to support people's health needs.
- Setting the ambitious target that by 2017 at least 10% of registered patients in every GP practice should be using a digital service such as online appointment booking, repeat prescriptions and access to records.

NHS Widening Digital Participation programme evaluation objectives

Tinder Foundation is committed to measuring the outcomes and impacts of its work, identifying barriers to learning and the challenges of achieving digital and social inclusion for all, as well as identifying, understanding and scaling up successful delivery models that overcome these barriers and challenges.

In line with this commitment, we used a multi-method evaluation framework for the final year of the Widening Digital Participation programme, driven by the following evaluation objectives:

1. To understand the reach, effectiveness and impact of programme activities, particularly in relation to priority audiences, aligned to groups cited in the National Information Board's 'Personalised Health and Care 2020: A Framework for Action', namely:
   a) people with learning difficulties
   b) dementia carers
   c) disadvantaged young people
   d) digitally excluded people generally.
2. To identify successful engagement and delivery models with the potential to be sustainable beyond the life of the programme, with a focus on partnerships.
3. To measure the impact of learning about digital health resources on:
   a) the confidence and skills people have to manage their own health.
   b) the confidence and skills people have to perform health transactions online.
   c) health and wellbeing behaviours.
   d) health service usage.

Acting on recommendations from Leela Damodaran, Professor of Digital Inclusion and Participation at Loughborough University, we have altered some of our data collection methods in year three of the programme, allowing a clearer focus on deeper, sustained behaviour change and end-user benefits. [13]

Innovation Pathfinders

Year three of the Widening Digital Participation programme included funding for eight 'Innovation Pathfinders'. Their role was to explore innovative ideas for engagement aimed at specific priority audiences or needs, alongside the 200 other funded centres which received smaller grants. [14] A summary of the original eight Innovation Pathfinders and their respective priority audiences and/or needs are shown in the table below:

	People with Dementia and their carers	People with learning difficulties or disabilities	Young people (including at risk of offending)	Social Prescribing delivery model	WiFi in wards
Age UK South Tyneside, South Shields	■				
Bromley-by-Bow Centre, London				■	
CHANGE, Leeds		■			
Cooke e-Learning Foundation, Leicester	■				
Edlington Hilltop Centre Associates, Doncaster				■	
Inspire Communities, Hull		■	■	■	
mHabitat, Leeds	■				■
Southampton City Council – Libraries, Southampton	■			■	

10. https://www.statslife.org.uk/science-technology/2445-mind-the-gap-the-digital-divide-and-digital-inclusion
11. NHS (2014) Five Year Forward View https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf
12. https://www.gov.uk/government/news/martha-lane-fox-sets-out-her-digital-proposals-for-the-nhs

13. Details of the evaluation methods and data collection can be found in Appendix A.
14. Due to demands on staffing resources, one Innovation Pathfinder, Cooke e-Learning Foundation, had to withdraw from the programme.

2. EVALUATION FINDINGS: SCALE, IMPACT AND BEHAVIOUR CHANGE

Scale and reach of the programme

The Widening Digital Participation programme has exceeded expectations both in terms of scale (numbers of people reached) and depth. It has engaged those socially excluded individuals who are most in need of help, and have the most to gain from the support provided by the programme.

Through the UK online centres network, including the 200 centres funded through the programme and those in the wider network who did not receive funding:

- **81,049** people were trained to use digital health resources and tools such as NHS Choices and GP online appointment booking service in year three of the programme.
- **221,941** people have been trained since the start of the programme.

In addition, many more people have been reached by the programme, and made aware of the tools and resources available. Including those who were trained:

- **152,005** people were made aware of online health tools and resources in year three of the programme.
- A total of **387,470** people have been reached since the start of the programme.

A third of those reached in year three had contact with centres who did not receive grant funding through the programme. This demonstrates the huge reach and impact of the UK online centres network and the ability of organisations within it to promote key messages to relevant audience groups.

Volunteers have been key to the success of the Widening Digital Participation programme, with:

- **3,694** people trained as Digital Health Champions or volunteers in year three of the programme, helping to promote the awareness and use of digital health resources.
- A total of **8,138** people were trained as Digital Health Champions or volunteers across the life of the programme.

The scale of the programme and the reach of the UK online centres network has helped to engage and support people living in disadvantaged communities, who meet several social exclusion criteria. Among the learners across the network who have used the digital health courses or visited the Health page on Learn My Way: [15]

- **82%** fall into at least one category of social exclusion. [16]
- **60%** are in receipt of means-tested benefits
- **44%** are disabled.
- **34%** are unemployed.
- **19%** are aged 65 or over, **21%** are aged 55-64, **23%** are aged 45-54, **16%** are aged 35-44, **12%** are aged 25-34, and **6%** are aged 24 or under [17]
- **16%** are from BAME groups.

The impact on learners

The Widening Digital Participation programme has had a huge impact on those that have been supported by it. The health and wellbeing benefits go far beyond using the internet for health, incorporating all the advantages that general digital inclusion offers.

Learners supported through the programme have improved their general confidence and wellbeing, feel more informed about their own health and more in control of how they manage it. In addition, learners have been able to save time and money by avoiding visits to GP surgeries and hospitals. These positive individual outcomes have also benefitted communities, government and society.

Among learners using the Learn My Way platform in year three of the Widening Digital Participation programme:

- **52%** strongly agreed or agreed that they feel less lonely or isolated as result of learning digital skills.
- **62%** stated that they felt happier as a result of more social contact.
- **72%** agreed that learning digital skills had improved their general self-confidence.
- **65%** agreed that they were more informed about their health.
- **59%** agreed that they are more confident using online tools to manage their health.
- **51%** of learners have used the internet to explore ways to improve mental health and wellbeing (e.g. strategies for managing stress).

In terms of managing their health online through Learn My Way's health courses:

- **39**% of learners report saving time by doing something health-related online rather than in person or on the phone.
- Of these people, **79%** report saving money as well, mainly through reduced travel costs (73% of those that reported saving money).

Behaviour change and use of services

The improved skills and confidence gained by those supported through the Widening Digital Participation programme has led to direct impacts on their behaviour, with a significant number going on to make changes to their lifestyle, or to the way they engage with health services. This has led to significant savings for the NHS in the delivery of frontline services.

This has supported one of the key ambitions of the programme: to support people as more NHS services become digital by default, leading to positive long-term benefits for individuals and the NHS as a whole.

Since using the health resources on Learn My Way in year three of the programme:

- **41%** of learners have **accessed health information online for the first time**. A further **32%** say they are now able to do this more effectively.
- **54%** of learners in need of non-urgent medical advice **would now go to the internet first**, to look at sites such as NHS Choices.
- **56%** of learners now **look up information on the internet about health conditions,** symptoms or tips for staying healthy.
- **29%** of learners have **gone online to find health services**, such as looking for a new GP or dentist.
- **22%** of learners have progressed to **booking GP appointments online** and **20%** have **ordered repeat prescriptions online.**
- **17%** of learners have **gone online to rate or review their GP or another health service** they have used. [18]

The programme has also provided a better understanding of how behaviour change reduces demand on frontline and acute health services, and the cost savings that result. Many learners supported in year three of the programme have significantly reduced the number of calls and visits they make to their GP, NHS 111 and A&E services. Specifically:

- **21% of learners made fewer calls or visits to their GP,** with **54%** of those saving at least three calls in the three months before being surveyed and **40%** saving at least three visits over the same period.
- **10% of learners made fewer calls to NHS 111**, with **42%** of those saving at least three calls in the three months before being surveyed.
- **6% of learners made fewer visits to A&E**, with **30%** of these saving a minimum of three visits in the three months before being surveyed.

Looking only at learners who reported reducing visits to their GP and A&E departments by at least three visits per quarter, we estimate **a cost saving of £6m to the NHS in year three alone**, made up of a **£3.7m** saving from fewer GP visits and a **£2.3m** saving from fewer visits to A&E. [19] This cost saving represents **a significant return on investment** in year three of the programme of **£6.40 for every £1 spent**.

This is only a conservative estimate, and it demonstrates the huge financial benefits of the Widening Digital Participation programme through giving people the digital skills they need to manage their own health more effectively.

Impact on health professionals

The Widening Digital Participation programme has had a number of positive benefits for health professionals, helping them both to improve their skills and adapt the way that they deliver services.

15. Figures obtained through Tinder Foundation learner survey, administered by IFF Research. n=1965
16. UK online centres' learners are defined as socially excluded if they are unemployed, disabled, in receipt of means-tested benefits, live in social housing or are homeless, or are in HBAI relative income poverty.
17. Not every respondent will provide their age. As such, the percentages for each age group will not sum to 100%.
18. Data from Tinder Foundation progression survey, administered by IFF research. Sample sizes vary for each question and may be small enough to require further investigation to draw concrete conclusions.
19. A full methodology and cost saving calculation can be found in Appendix B.

Case Study: Christine Roworth-Gaunt, Occupational Therapist

Christine Roworth-Gaunt is a Senior Occupational Therapist for Leeds Memory Services, working as part of the Dementia Team. She is involved in the Widening Digital Participation programme working with mHabitat, an Innovation Pathfinder, delivering outreach services in Digital Cafés and Memory Services initiatives.

"I was involved with [...] mHabitat [as part of the Widening Digital Participation programme] and it's all about bringing digital technology out into the community and working with people with memory loss. It's all about them still being in charge of their lives. I'll go out and do a full occupational therapy assessment with someone, and [sometimes] it comes in that they're having difficulties in accessing services, [...] shopping, or generally sat there day in day out with nobody. I used to do it with my own iPhone, [but] now I've got a tablet it's brilliant. I pop it in their hands, use the mobile WiFi units that we've got and we're off and running. It's wonderful to work with people. We're getting so much out of it as therapists ourselves."

Christine Roworth-Gaunt, Senior Occupational Therapist,
Leeds Memory Services.

Case Study: Dr. Ollie Hart, GP

Dr Ollie Hart is a GP working at Sloan Surgery in Heeley, Sheffield. The surgery has been part of the Widening Digital Participation programme and has teamed up with local UK online centre Heeley Development Trust to run a 'digital surgery' on site, which has seen nearly 300 people get help to find online health information over the last three years.

"At my practice, we've been running a digital surgery alongside our normal healthcare for three years. In that time hundreds of patients have been referred on to get help to use computers and the internet – and find out more about their health. The digital surgery has been particularly useful for the people we see with long-term health conditions – things they'll be living with and have to learn to manage for the rest of their lives, like diabetes, depression, chronic pain or arthritis. I've only got ten minutes – perhaps twenty – with a patient, and that's often not enough time to answer all the questions or go through all the options. When people come back to see me, they've got a better idea of what they're facing and how they want to proceed – and that's great for me. I can make the diagnosis and suggest some treatment options but actually it's not up to me to make the judgement about what comes next."

Dr. Ollie Hart,
Sloan Surgery, Heeley, Sheffield.

3. EVALUATION FINDINGS: REACHING THE FURTHEST FIRST

Priority audiences: an introduction

In order to achieve the maximum impact for health services, a number of priority audiences were identified as part of the Widening Digital Participation programme.

The priority audiences for the Widening Digital Participation programme's third year were:

- people with dementia.
- carers of people with dementia and other unpaid carers.
- people with learning difficulties or disabilities.
- young people (including those at risk of offending).

These target groups were chosen because they aligned with groups cited in the National Information Board's report: 'Personalised Health and Care 2020: A Framework for Action'. The report describes how the Department of Health, NHS England and the HSCIC (in partnership with the voluntary and independent sectors) would sponsor initiatives to develop and provide technology and data services which support new ways of delivering care services.

The Innovation Pathfinders (detailed earlier in this report) were the primary vehicles for exploring approaches to delivering digital health training to these groups. They had a rich understanding of the priority audiences, the barriers to engaging with them and which methods were most effective for delivering digital health training. Across the wider network of centres funded through the Widening Digital Participation programme, there was also a wide range of experiences of dealing with particular audience groups, including the priority audiences. [20]

General themes across all audiences

As well as investigating approaches for specific groups of people, the Widening Digital Participation programme has enabled Tinder Foundation to uncover themes that are common to all priority audiences. These relate to the delivery of digital skills training and the perception of available resources and tools.

Trust and safety concerns

NHS Choices has been consistently referred to as a trustworthy source of information because of the NHS 'brand', but most people treat other online health tools with caution because they are unsure of the source. When online health information is not trusted by a learner, it can hamper their progress with general digital skills training as that lack of trust extends to other websites and tools.

Information overload

There is a lot of useful information on the NHS Choices website and it works well for alleviating short-term stress about some symptoms. However, it can be difficult for people to understand the terminology and acronyms used. This can lead to confusion and, in some cases, counteracts the positive effect of digital health resources on relieving the burden on health services as learners seek clarification in person or over the telephone.

The value of personal testimony

People are receptive to and trusting of information provided by others with shared experiences, for example through online forums for people with a particular condition. These forums can provide support in addition to that provided by health professionals and friends/family.

Basic digital skills and wider wellbeing

The right equipment, internet access and basic digital skills training allows people to access condition-specific health resources online. It also enables them to engage with services more effectively. Examples of this include personal scheduling tools or online public transport timetables which help people keep hospital appointments.

20. A full table of audiences reached by funded centres can be found in Appendix C.

People with dementia

Three of the Innovation Pathfinders (Age UK South Tyneside, Southampton Libraries and mHabitat) had a particular focus on supporting people with dementia. Through their work as part of the Widening Digital Participation programme, we were able to trial and evaluate a number of approaches to delivering digital health training to this group and identify barriers to their success. This section summarises the key findings from working with this group.

Working with carers and family members is the key to engagement. Carers and family members often feel that developing digital skills and investing in IT equipment will not benefit people with dementia, but will add to their anxiety, and it can be difficult to challenge these attitudes. However, by working directly and closely with carers and family members, Innovation Pathfinders have been able to engage them and convince them of the benefits of digital for those they care for.

Using a 'multi-sensory approach' to assist with learner engagement has the greatest impact. The use of familiar smells and visual prompts or photos from a learner's past is a successful way to introduce online activities and helps learners retain information.

Digital health training improves relationships with health professionals. Confidence improves when learning about dementia online, with learners stating that they feel that their GP understands them more.

> "I would say at least a third of [our learners] are now booking appointments online with GPs and ordering scripts online. So it is having an impact on the GPs' surgery as well. Confidence-wise there has been a massive improvement, [...] so they tend to be a lot more positive."
>
> **Martin Simpson, Age UK South Tyneside.**

Effective record keeping, data sharing and a consistency of approach result in better digital skills learning and health outcomes. People with dementia form attachments to particular resources and people once they have started working with them. Keeping a record of these is important so that anyone new coming in – carers, staff or volunteers – can pick up the learning journey with that person. However, Individual Care Plans have not always been particularly in-depth and issues around data sharing between organisations has made it more difficult to tailor learning. A funded UK online centre told us:

> "We generally work in a different way – spending a lot of time finding out about the background of a person as well as existing skills and interests. This personal history is then embedded into the way we teach skills. We also try to simplify and personalise the way people with dementia access technology – removing any superfluous icons, tiles etc. and adapting the remaining ones so that there is a simple association between the icon and an activity."

Volunteers and Digital Champions should have a health focus, as well as digital expertise. This approach has worked well in communicating the relevance and context of the digital skills to people with dementia.

Digital health training has a positive impact on both individuals and their families. Family members see the benefits to be gained from digital reminiscence tools. These resources have been used to capture moments of lucidity from the person with dementia that the family may not necessarily have seen for some time.

Tablets are the most effective devices on which to deliver digital skills and digital health training to people with dementia. Digital equipment should be introduced in a 'soft way', such as through the use of apps for games and puzzles, before moving on to digital health resources. A funded UK online centre told us:

> "We have used tablets/iPads because this group of people seem to manage touch screen easier than laptops."

Digital technology can be successfully integrated into the assessment of people with dementia as well as their care planning. Using this model, mHabitat used digital resources at the discharge stage from dementia wards so that a 'bespoke digital care plan' can be carried forward for patients.

As a result of these specific insights, Tinder Foundation has conducted a separate, focused action research project into this area. The 'Health and Wellbeing of People with Dementia and their Carers: Where can Digital Skills and Community Support add value?' report will also be published in the summer of 2016.

Carers of people with dementia and other unpaid carers

The same Innovation Pathfinders involved in delivering support to people with dementia also investigated approaches for carers, supporters or family members of people with dementia.

A lack of time and disposable income prevents some carers from attending digital health training sessions and many suffer from fatigue. To address these issues, UK online centres and Innovation Pathfinders have adopted a range of successful approaches. These include outreach work focussing on digital resources to assist carers' day-to-day lives, providing access to support networks, and demonstrating how being online can save time. Partnerships with respite organisations have worked well, as have shorter sessions in the community over a longer period of time. Funded UK online centres told us:

> "Having short sessions over a long period has worked well with this audience."

> "Groups such as carers are difficult to reach, due to their availability and flexibility to attend the course not being great."

Carers are a difficult group with which to engage, particularly as many do not associate themselves with the term 'carer'. It is important to consider the language used when promoting activities to make it clear that family members and supporters are also welcome.

Digital health training activities are best delivered in group settings where both the carer and the cared for are present. A group setting enables peer support and temporary respite for the carer, without having to rely on alternative care arrangements. Funded UK online centres told us:

> "Workshops [with carers] alongside the person they are caring for has worked well because they are working together and the carer is not worrying about their family member or friend while they are learning."

> "We also offer what is called "Care and Share" [which] is when a carer and the cared for meet up with their peers enabling at least one of the carers some time to themselves."

Once engaged with digital resources, the feedback from carers and those working with them is positive. Digital devices can be a recreational activity for carers, as well as a way to access relevant health information.

> "During a session with four service users and three carers they all had a 'go' and enjoyed the experience, despite their previous experience of using devices and PCs etc. We had difficulty encouraging them to leave."
>
> **Occupational Therapist, Leeds.**

> "We have noticed that many of the unpaid carers are interested in finding out about specific health conditions online. The NHS website is proving to be a vital tool for them."
>
> **Funded UK online centre, year three.**

> "Unpaid carers have found the sessions very useful and are now aware of the benefits of using online. This is mainly due to time being at a premium during their caring role."
>
> **Funded UK online centre, year three.**

Employers of paid care workers do not always see the benefit of training staff in digital (health) skills and do not make time for carers to attend sessions. A number of funded UK online centres reported difficulty in training paid care workers through employer support, despite the clear benefits.

mHabitat carried out a survey of carers as part of their role as an Innovation Pathfinder. 85% of the carers had access to broadband at home but only 45% had mobile access to the internet and only 35% had any interest in apps or health apps. 80% had access to a laptop, tablet, smartphone or desktop computer. This was a small sample of carers (20) and the feedback from them regarding how carers currently do not use online health resources would suggest that further investigation would be beneficial. [21]

In 2015, Tinder Foundation led a short research project (independent of the NHS Widening Digital Participation Programme) in partnership with Carers Trust, Carers UK, Family Fund and local partners in the UK online centres network, which supports unpaid carers. The 'Health and Wellbeing of Unpaid Carers: Where Can Digital Skills and Community Support Add Value?' report was published in December 2015. The key findings of this report relating to the aims of the NHS Widening Digital Participation programme are summarised below:

- Being a carer leaves **little time to focus on one's own health**, with "20% of carers considering themselves as having a **mental health** condition."
- "Carer confidence is affected by lack of timely information and support, with **many carers feeling local organisations aren't working together** to deliver such support."
- Carers "are researching health conditions and finding information to help with their caring responsibilities online" but **only 11% are using the internet to manage their own health and wellbeing**.
- There is a **need to "create the conditions for blended support" by encouraging local support organisations** to join or work in partnership with the local UK online centres network, as well as "integrate digital skills training into their support model."

People with learning difficulties or disabilities

CHANGE, an Innovation Pathfinder in the Widening Digital Participation programme, works to empower people with learning disabilities. As part of their programme of activities, they evaluated the NHS Choices and Learn My Way platforms for accessibility, and conducted focus group discussions and surveys. A number of other funded UK online centres also provided feedback.

Text on the Learn My Way and NHS Choices websites was found to be inaccessible. Certain health and course-related words were not understood, such as *modules, reload, highlight, condition* and *treatment*.

Health information online does not reflect the issues affecting people with learning disabilities and is not presented in a way which is accessible. Playing games and interacting with people were highlighted as important things from an accessibility point of view. Many do not use online resources purely to access information.

Voice-activated options for online training and other, non-text resources worked well. These were highlighted as essential for those people that have difficulties with reading. A funded UK online centre told us:

> "Literacy is a big problem for this group, so they respond well to the videos and stories told on the NHS website."

Home access to computers, laptops and the internet is not common amongst people with learning disabilities and this results in low levels of confidence, awareness and engagement in relation to using online health resources. Tools on Learn My Way and NHS Choices were described as too advanced with 80% of those surveyed by CHANGE stating they had never used NHS Choices and 83% unable to state what information the site might contain.

21. Tinder Foundation has published a separate report on unpaid carers, the relevant findings of which are included later in this section. The full report can be found at http://www.tinderfoundation.org/sites/default/files/research-publications/unpaid_carers_report_final_sml.pdf

Delivery of digital health training may be convenient for those in care homes, but it was found that this could be isolating and did not promote social inclusion. It was recommended that people should be supported in travelling to and attending sessions at community venues such as UK online centres.

Social media is an effective channel for communicating and engaging with people with learning disabilities, particularly if this included content around how to access and use health resources. Engagement should be focused on specific topics relevant to the group and bear in mind the accessibility issues that have been raised.

Information and support should be channelled through people and organisations that support people with learning disabilities, such as friends, family, carers, voluntary groups and professionals. These additional groups must be equipped with the information and skills they need to enable this to happen effectively.

One-to-one and peer support models work well for delivering digital skills training in relation to health. This is due to a lack of learner confidence and a wide range of needs. However, a number of centres reported that the extra time and costs required to deliver basic digital skills training in this manner was prohibitive. Funded UK online centres told us:

> "We have found peer support is a great way to help these users feel more relaxed and confident to make mistakes."

> "There are a vast array of different skill levels and support required varies massively from person to person."

Young people (including those at risk of offending)

As an Innovation Pathfinder, Inspire Communities in Hull were primarily focused on engaging with young people, particularly those with 'chaotic lives' and a history of offending. A number of challenges have emerged in delivering digital health training in a sustained way to this group, which has complex needs. It has been difficult to gain consistent insight into successful ways to work with them.

Effective partnerships are key. Links with local hostels and sheltered housing, for example, have enabled Inspire Communities to evaluate and refine their approach.

Integrating digital skills training into other projects and initiatives shows signs of success. Concentrating on focal points such as food banks and embedding digital health into all of the activities a centre undertakes works well with unemployed or homeless people, for example, rather than setting up dedicated sessions.

Mobile phones are the best devices on which to introduce digital health resources. This enables centres to introduce tools such as NHS Choices, healthy eating apps and other online health resources on more familiar devices through their outreach work.

Making GP appointments online has been of particular interest to this group. It is often difficult for people with chaotic lives to be available to call a surgery at the required time.

There are high rates of anxiety and depression within this group. The most successful training on the use of the NHS Choices website has been on a one-to-one basis using volunteers with similar experiences that have learned about their own conditions first before assisting others.

Low confidence in using information-based resources is a barrier, but there is a general familiarity with going online for other reasons, such as social networking. Peer support was a consistent theme in overcoming these barriers to engaging with and delivering digital health training. Funded UK online centres told us:

> "It's easy to support these groups of people once they have confidence in using computers to access services online. The challenges are always lack of knowledge and building their confidence to start believing that they can do it."

> "I have found that the majority of young people are experienced internet users and some are impatient with reading material and often just click through web pages without learning. To engage these types of learners, I find it helps to encourage them to support other members of their peer group which in turn builds their self-esteem."

Other hard-to-reach groups

People whose first language is not English, learners with low incomes, some faith groups and those aged 16-24 were highlighted through the final survey as particularly hard-to-reach groups by some funded UK online centres. In these cases, the extra resources required to support these groups were highlighted as a barrier considering the funding provided. UK online centres told us:

> "The other group [that are] hard to reach are **Muslim women** who have been in the UK for many years. This group find it difficult get to centres, have very little English and rely on family members to deal with health issues."

> "To help with engaging **refugees and asylum seekers**, we are partnering with another charity with significant experience with this client group and access to ESOL provision to facilitate participation in online digital health activities."

> "We are currently trying to develop a programme to support those who are **homeless and/or have substance abuse issues**. The main barrier to getting this to work effectively is the continuity of contact as attendance at support sessions can be erratic."

> "The people we struggle to reach are **the ones who think they know all about computers and internet** and do not need to go to a learning session to find out [about digital health resources]."

> "**Faith communities** [are hard to reach] as we do not seem to be able to get past the leaders."

> "**Low income learners** [are difficult to engage with digital health] as going to work is more important for them."

4. EVALUATION FINDINGS: DIGITAL INCLUSION AND NEW MODELS OF CARE

Engaging learners with digital health

Throughout the programme, it has been important to investigate successes and challenges in terms of:

- reaching audiences.
- engaging learners.
- promoting the development of digital skills for health.

Partnership and outreach

Partnership and outreach work with GP surgeries, local organisations, local authority health teams and charities has been the most effective method for reaching people and making them aware of digital health training. Through these partnerships, UK online centres have been able to distribute publicity materials about training sessions and attend events to talk with potential learners. In many cases, UK online centres have taken devices with them to these venues to demonstrate what's on offer. UK online centres told us:

> "We have raised awareness of online health resources through: information leaflets and posters at health information awareness days run from our centre; partnerships with health organisations such as British Heart Foundation, Stroke Association, Scope, Blossoms Care Service."

> "We have had good relationships with local surgeries, pharmacies and the District Council Health Team. All have referred people to us and we have done joint projects and shows at local community venues. Word of mouth has also played an important part at local groups and people have come along to outreach sessions asking for help."

> "We use our outreach workers, our centres, community events and leaflet distributions in libraries, post offices, youth centres and any other government and community centres."

Digital health by stealth

Digital health tools and resources are often best introduced 'by stealth' in settings that are not solely focused on digital interventions. This means that learners who have preconceptions about their digital capability or low confidence in this area are less likely to be put off. An example of this is using tablets in memory cafes for people with dementia where the focus of the event is researching local history. By introducing the digital devices as a tool, people are more likely to see their relevance and then go on to use them for other purposes, such as online health. A funded UK online centre told us:

> "We have been running cooking and walking classes and have also given those learners an awareness of available health resources."

The limited capacity of UK online centres, a reliance on sustained volunteer numbers and the need to provide additional services, such as child care, are potential barriers to engaging learners. In addition, time restraints, language barriers and a lack of wider digital skills training feature commonly as challenges to successfully engaging people with digital health resources.

Delivering digital health training

The most effective model for the funded UK online centres involved in this programme is embedding digital health training into wider digital skills training. This can be done as part of structured classes or in less formal models of training such as drop-in sessions. 56% of funded UK online centres stated that digital health work is now embedded in their programmes and 57% responded that they offer digital health training to most/all of the people they deliver basic digital skills training to, under the Future Digital Inclusion project. [22] Funded UK online centres told us:

> "We have mainly embedded the online health resources awareness training during our existing digital inclusion or English My Way classes. We have found this has worked well for us as learners were more receptive when it was done this way."

> "We usually encourage all our clients to explore the health resources as a matter of course."

Integration into existing delivery is a cost-effective model. By building on funding already in place, such as Tinder Foundation's other programmes, the cost-per-head for delivering digital health training can be reduced.

Including digital health training in other non-digital activities is a successful way to introduce online resources and tools. Examples of this include the integration of digital health training into English for Speakers of Other Languages (ESOL) provision or healthy eating and exercise sessions. With regards to ESOL, a number of centres have included digital health training as part of their work with English My Way, again providing a cost effective delivery model. [23] Funded UK online centres told us:

> "We have been most successful in delivering outreach sessions at various locations including at school and community events e.g. open days. This has allowed us to deliver health information to a wider audience, not just those who are interested in gaining digital skills."

22. FDI is Tinder Foundation's 'Future Digital Inclusion' Programme
23. The English My Way programme has been funded by the Department for Communities and local Government through the Community-based English language competition - http://www.englishmyway.co.uk/about-us

"Everyone is interested in health – it has been great to show this on some courses in schools and also ESOL courses."

"As we operate from within a large building we can access other groups i.e. Blood donor sessions, keep fit etc. as well as the normal groups of people who come here for computer learning."

"We've also tried to start embedding into our health and wellbeing programmes and courses, for example, 'The Weigh Forward' sessions aimed at helping older people live a healthy lifestyle through 'wellbeing plate', exercise etc and finding recipes or calculating BMI and more online."

Social prescribing

As part of the third year of the Widening Digital Participation programme, the 'social prescribing' model and how it can be linked to digital skills and digital health training has been investigated by four of the Innovation Pathfinders: Edlington Hilltop Centre Associates (near Doncaster), Bromley by Bow Centre (London), Inspire Communities (Hull) and Southampton Libraries. A number of key insights have emerged.

Social prescribing happens when primary care services refer patients with social, emotional or practical needs to a range of local, non-clinical services.

Having health services and provision for digital health training on the same site is beneficial to staff, patients and UK online centres. For both the Bromley by Bow Centre and Edlington Hilltop Centre, this was central to the successes of the model as it allowed 'referrals' to happen instantly from the patient's perspective. Involved GPs have found the online feedback forms to be a very useful source of information which helps them to understand their patients' needs.

Integrating a social prescribing approach with digital health training leads to a reduction in the number of GP appointments made and an increase in satisfaction ratings. Anecdotally, some centres have seen a third fewer (33%) GP appointments made by a number of different groups. In addition, GP practices that have responded to the feedback from Family and Friends Test and iwantgreatcare.com, have begun to see an improvement in the rating of their services.

Strong partnership working and allowing time for trust-building between health professionals, patients and training delivery centres is crucial. From the patient perspective, a 'trust-building' phase has been described as essential when engaging with individuals around digital health as this ensures that their true needs are identified. This means not diving straight into online training and taking a holistic approach. Edlington Hilltop Centre, for example, were central in establishing an independent Patient Participation Group (PPG) for the Martinwells Health Centre, and consulting with the group on the launch of digital services such as appointment-making and prescriptions. As a trusted organisation in the community and through consultation with the PPG, they have noticed that some learners are confused by digital health tools and resources, especially relating to which medications are available through e-prescription. Through the development of partnerships, Inspire Communities have been using trained volunteers at surgeries to refer people to their digital health and digital inclusion services. This has been focused on patients with poor mental health, with a view to reducing social isolation through the group activities and, where appropriate, signposting to digital health resources that help people manage their mental wellbeing.

Establishing clear referral pathways and processes is key and should be done collaboratively between health professionals, surgery staff, community workers, volunteers and digital inclusion tutors. In Bromley by Bow, 'Digital Inclusion' is an option for referral which is built in to the internal EMIS surgery system. This referral is sent to the in-house digital inclusion team, housed on the same site. This process has been developed through regular meetings with health professionals, surgery staff, community workers, volunteers and digital inclusion tutors. This holistic approach has enabled a greater understanding of needs from a digital inclusion perspective and importantly, what the signs are at the consultation stage to suggest that a digital inclusion referral may be beneficial. Crucially, interventions are either one-to-one or in group workshops, depending on the needs of the individual.

Enabling social 'prescriptions' to be made by non-clinical staff allows demand to be diverted away from health professionals when appropriate. Referrals to or 'prescriptions' for existing digital inclusion support are also being trialled from non-clinical staff. This includes GP practice receptionists and those working as part of the centre's other activities such as advice on housing and employment. Although this isn't tracked through the official social prescribing route, it recognises an individual's wider, non-medical needs, and diverts the demand away from health professionals where appropriate.

It is essential to understand which devices are used by patients and how they access the internet. This ensures that the right interventions are prescribed and can be tailored accordingly. For many, mobile phones are the only means of internet access. As such, learning content and digital health resources that are not tailored for these devices have caused some problems. In addition, poor internet connection and mobile reception at some centres has made some skills training difficult. This has been addressed by allocating activities to different locations (home, GP, centre) based on how 'download heavy' the activity is. In addition, mixing approaches so that learning can happen in a number of environments has enabled greater reach.

Demand for the wider services of UK online centres has increased through links with social prescribing initiatives. Some centres have seen an increase in the number of people coming to the organisation directly for digital health support, rather than being referred by GPs or just falling through the net. This further reduces the demand on local primary care services, but it is important to recognise any capacity issues that may result from the perspective of UK online centres.

Public WiFi and a connected NHS

As part of mHabitat's activities as an Innovation Pathfinder in year three of the Widening Digital Participation programme, they were required to set up free public WiFi in The Mount (an inpatient service in Leeds for older people with mental health needs and dementia), provide access to mobile devices (in this case tablets) and digital inclusion support for patients, and deliver Digital Health Champion training to clinicians and volunteers. This strand of the Widening Digital Participation programme is closely linked to the recommendations set out by Baroness Martha Lane Fox to the National Information Board in December 2015 and paves the way for a more connected NHS.[24]

Challenges

Procurement processes can be long-winded and lead to installation delays. The project leads at mHabitat have highlighted the NHS procurement process as long-winded, but it is clear that the internal perceptions of the difficulties do not match up with the perspective of those outside of the NHS commissioning process. According to mHabitat, those working within the NHS "are used to the way it works and it has not surprised them that there have been delays". In addition, after the initial investigation of the site, the insulation of the building led to a number of 'dead spots' in the signal. Some delivery and training was able to take place in these early stages, however, through the procurement of tablets and mobile dongles. This also enabled outreach work by the memory services team in community settings such as libraries.

Training of staff and volunteers is a challenge due to the complexities of mapping ward rotas and volunteers' free time. Staff and volunteers also require very different approaches; "the staff require more structure, formal systems-led formats and the volunteers need a more discursive approach which helps prepare them for working on a ward or in a community environment."

> "We started from a completely unprepared ground, this is partly why we wanted to do it; to see how hard is it and can we make it work. I think the answer is it's very hard and we can make it work. But what we have to do is masses of preparation work and talking to people. I think the early conversations are especially important. It was vital to create a safe space for staff to explore ideas and work through their own anxiety in the privacy of a staff group in the first instance and then get a wider group together to get the practical issues sorted."
>
> **mHabitat**

Successes and impact

Detailed early investigation lead to a robust installation with good capacity for a multi-use environment such as a ward, including a detailed specification for how to replicate the installation in similar settings. Importantly, staff at the site did not report any undue upheaval during installation. mHabitat were able to track the WiFi's usage once installed, with the service being accessed 742 times in an early 10-day period.

Installing WiFi as well as providing device training for staff and volunteers has had a positive impact on patients and staff. A custom landing page was available for users accessing the service, which contained direct links to specific digital health resources for older people, including Learn My Way and adult care services. In addition, devices were customised in terms of the apps available, so that staff, volunteers and clinicians could 'pick up and go' with the available devices and know that they were suitable for the patients on the ward and at outreach sessions. As staff have become more confident with the WiFi access and devices, further culture change has happened as people's initial anxieties receded. For example, it was reported that staff were now comfortable with leaving devices out on mental health wards for anyone to use.

> "The wider team are also beginning to think of this as a normal feature of ward life, noting the benefits to people accessing services and their carers.
>
> "We've had some carers who now have gone straight out and bought a device just before they're discharged."
>
> **mHabitat.**

> "I used a variety of apps with the Service Users, and have used the devices to research new apps that the Service Users were interested in. Some of the Service Users would now like to buy their own device."
>
> **Volunteer.**

Recommendations

It is necessary to get a critical mass of 'change agents' on site before momentum can be built. This should be backed up by senior managers supporting staff to get on board as 'Digital Champions'.

Decisions on technology solutions should be made in cooperation with service users to ensure needs are met. It is essential that technical teams are engaged early on in the process specification.

Clinicians often need someone that 'speaks their language' in order to communicate the benefits of digital interventions in a clinical setting. This helps to overcome objections, particularly around online safety and security.

An 'agile' approach should be adopted. [25]
This allows the project and any implementation of infrastructure to adapt to clinical demands as and when they arise.

Tailored tablets are the best devices to use and maximise the benefit of WiFi in this setting.
They are big enough to see and more intuitive to use, leading to more sustained use.

24. https://www.gov.uk/government/news/martha-lane-fox-sets-out-her-digital-proposals-for-the-nhs

25. Agile Project Management is an approach adopted by many in the software development sector which promotes collaboration and an ethos of responding to change. http://agilemanifesto.org/

Partnership working

Local and national partnerships formed by UK online centres as part of the Widening Digital Participation programme have been an essential part of its success and reach. Partner organisations have ranged from Clinical Commissioning Groups (CCGs) and GP practices, to local authorities, charities, businesses and other community organisations.

Local partnerships have been easier to establish and build upon, but many centres have reported difficulties in engaging with GPs, CCGs and health professionals. Of the wider network of funded UK online centres, nine reported forming a partnership with a GP practice, while 10 have partnered with another health service or professional. In comparison, 36 centres reported forming new partnerships with a local community organisation, building on existing partnerships that were formed in the first two years of the programme.

The results and impact have been greatest where partnerships have been formed with health-related organisations, such as those involved with social prescribing. Anecdotally, the capacity of health professionals and issues around confidentiality and data sharing have been cited as reasons for why these partnerships have been harder to develop. In addition to this, it has been reported that there may be a lack of confidence from GPs and CCGs in referring to non-clinical organisations, such as those within the third sector. Other projects, such as the Rotherham Social Prescribing Service, have shown the benefits of a CCG-wide approach that engages with all GP practices and defines referral routes through a trusted organisation; Voluntary Action Rotherham in this case. [26]

> "[The] CCG was crucial, because that gave us access to GPs, the local hospital as well, and they were very supportive. We did have to use pre-existing relationships with a couple of people to sort of get in there in the first place, but once we were in there we did get a lot of support from them. They could see the impact that it was having with the people we were working with."
>
> **Martin Simpson, Pathfinder Lead at Age UK South Tyneside**

New and mixed sector partnerships are essential for 'reaching the furthest first'. Southampton Libraries have highlighted that, although partnerships are great, they shouldn't rely solely on them as they can tend to work with the same groups of people and don't necessarily lead to an increase in reach.

Sustainability and capacity-building

Cooperation and coordination between health organisations and professionals at a local, regional and national level will enable digital inclusion to be embedded across the NHS on a larger scale. The effectiveness of partnerships between CCGs, GPs and community organisations shown throughout the programme demonstrates the potential to incorporate health initiatives into broader digital inclusion work at a local level.

Embedding digital health in wider digital skills training makes future learning about online health resources and tools sustainable beyond the funded programme. Many UK online centres now include the health courses on Learn My Way in their programmes, partly because of the direct benefit it has on the people they work with.

Local partnerships formed as a result of the programme have led to a growth in capacity and demand for UK online centres' services. However, many centres have highlighted that extra resources – financial, human and digital – would be required to effectively deliver digital health training to hard-to-reach groups and priority audiences without adversely affecting their current capacity. This is primarily due to the one-to-one support required by these groups, often through outreach work.

Of the UK online centres funded through Widening Digital Participation in year three:

- **57%** offer digital health training to most or all of the people they deliver basic digital skills training to for the Future Digital Inclusion project.
- **34%** stated that they engage a wide variety of people with digital health – some are teaching them basic digital skills through the Future Digital Inclusion programme, but many are not.
- **Only 5** respondents advised that they treated digital health completely separately from other digital inclusion work.
- **73 (56%)** stated that digital health work is now embedded in their service offer and they want to continue supporting people with digital health in the future, even if it's not funded in the same way, because there's a real need amongst those they work with.

Programme delivery would benefit from longer periods of funding. It has been highlighted that with funding being made available in one year tranches, it is difficult to form, manage and sustain the partnerships required to continue delivering at scale in such a short time. mHabitat have shown, however, that it is possible to embed changes to staff culture – digital methods are now used to communicate with patients and assess their needs.

26. For more information on the Rotherham Social Prescribing Service and its evaluation, see http://www.varotherham.org.uk/evaluation/

5. APPENDIX A: MONITORING AND EVALUATION METHODS

Monitoring

To assess the number of people trained to use digital health resources such as NHS Choices, we measured the number of unique visitors to the digital health resources on Tinder Foundation's Learn My Way platform: the 'Being Healthy' page (that links to NHS Choices and other sites), and the 'Staying Healthy with NHS Choices' and 'Using GP Services Online' online courses.

We also conducted monthly surveys of all funded centres, gathering data on the number of people reached to raise awareness of digital health resources and tools, as well as the number of volunteers trained. The number of people reached was calculated using both the management information data on people trained via Learn My Way and survey data from centres on the number of additional people they had made aware of online health resources. The number of volunteers trained was taken directly from the centre surveys.

Since a significant volume of delivery came from UK online centres that did not receive Widening Digital Participation grant funding, equivalent data from these centres was gathered through Tinder Foundation's quarterly survey of the UK online centres network, independent of the Widening Digital Participation programme.

Data collection and analysis

Quantitative survey data has been analysed and presented numerically, while free-text survey responses and qualitative interview transcripts were analysed to identify common themes.

Learner surveys that collected personal information were administered by IFF Research, an independent research agency, to protect the privacy of learners and comply with confidentiality regulations. Only aggregate data or de-identified raw data was provided to Tinder Foundation for further analysis and reporting. A confidence level of 95% applies to the results of the learner survey.

Tinder Foundation worked closely with the Innovation Pathfinders throughout the third year of the programme to gain evaluation insight from their activities, particularly in relation to priority audiences and the delivery models employed. This included in-depth, semi-structured interviews with staff at these centres and focus groups with learners.

6. APPENDIX B: ANNUAL COST SAVINGS AND ROI THROUGH CHANNEL SHIFT

GP visits

The Tinder Foundation progression survey responses indicated that 21% of learners made fewer calls or visits to their GP, with 54% of those saving at least three calls in the past three months and 40% saving at least three visits over the same period.

Focusing on those that saved at least three visits in the past three months and extrapolating across all learners in year three of the programme, we have calculated the total number of learners that we might expect to save this many visits:

81,049 learners x 21% x 40% = 6,808 people

If each of these people saves three visits in three months:

6,808 people x 3 visits each = 20,424 GP visits saved in three months

=> 81,696 GP visits saved in a full year

Each GP visit costs £45, therefore the total annual cost saving can be calculated as follows: [27]

81,696 GP visits x £45 = £3.7m

A&E visits

The Tinder Foundation progression survey responses indicated that 6% of learners made fewer visits to A&E, with 30% of these saving a minimum of 3 visits in the past 3 months.

Focusing on those that saved at least three visits in the past three months and extrapolating across all learners in year three of the programme, we have calculated the total number of learners that we might expect to save this many visits:

81,049 learners x 6% x 30% = 1,459 people

If each of these people saves three visits in three months:

1,459 people x 3 visits each = 4,377 A&E visits saved in three months

=> 17,508 A&E visits saved in a full year

Each A&E visit costs £132, therefore the total annual cost saving can be calculated as follows: [28]

17,508 A&E visits x £132 = £2.3m

Return on investment (ROI)

The combined annual cost savings (return) of reduced visits to GPs and A&E comes to approximately £6m against an NHS investment of £810,000 in year three.

Return on investment = (return – investment) / investment

= (£6m – £810,000) / £810,000

= £6.40 (for every £1 invested)

27. CEBR (2015) "The economic impact of Basic Digital Skills and inclusion in the UK".
28. Department of Health (2015) "Reference Costs 2014-15", https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/477919/2014-15_Reference_costs_publication.pdf

7. APPENDIX C: AUDIENCES REACHED BY FUNDED CENTRES

Audience	Percentage of respondents
Jobseekers	81.7%
Older people	71.8%
Low-income families	51.9%
People with learning disabilities	40.5%
People with poor mental health	39.7%
General population	39.7%
ESOL learners	33.6%
BAME communities	31.3%
Disabled people	28.2%
Volunteers/staff from other organisations	22.1%
Carers	20.6%
Refugees/asylum seekers	16.8%
Disadvantaged young people	14.5%
Support groups for health conditions	13.0%
People who are homeless	11.5%
People with substance-abuse issues	10.7%
Offenders and ex-offenders	9.9%
Gypsies and Travellers	3.1%

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