

Digital inclusion: evidence signpost

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**The
Strategy
Unit.**

Introduction

Introduction

This is a evidence signpost exploring digital inclusion, covering:

1. [Context: Digital first primary care](#)
2. [Defining digital inclusion](#)
3. [Barriers to digital inclusion](#)
4. [Digitally excluded populations](#)
5. [Improving digital inclusion](#)
6. [Patient Groups that benefit from digital services](#)
7. [Workforce challenges and digital services](#)

The evidence signpost has been limited to guidance and secondary evidence (e.g. systematic reviews and evidence summaries). The pack is intended to provide decision makers with a broad overview of the evidence base for digital inclusion. It is not intended to be an exhaustive review. More systematic and comprehensive reviews can be completed focusing on themes of interest, if required.

Context: Digital first primary care

NHS Long Term Plan: digital care commitments

The NHS Long Term Plan ([NHS England, 2019a](#)) commits that every patient will have the right to be offered digital-first primary care by 2023-24.

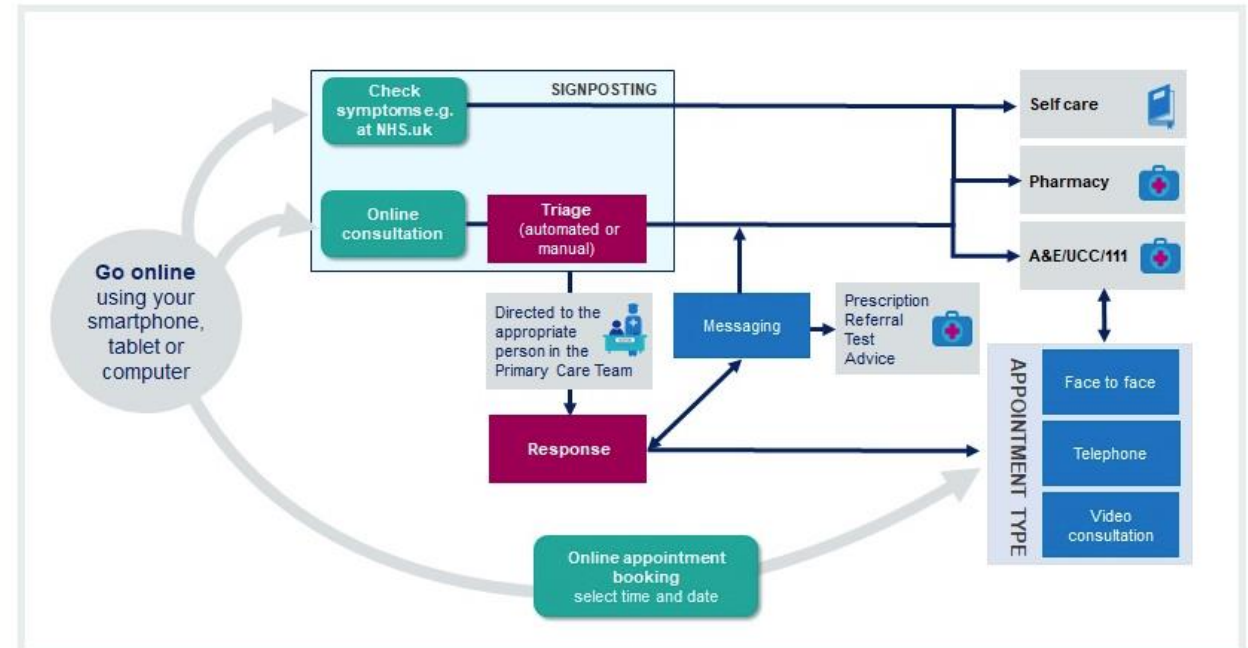
To achieve this commitment, the GP Contract ([NHS England, 2019b](#)) has set out a number of digital primary care requirements, including:

- From July 2019 all practices will ensure at least 25% of appointments are available for online booking. Practices that are encouraging utilisation of online consultations and offering non-triage* appointments online, i.e. those which are currently available for direct booking by patients on the phone or in person, will be recognised as working towards the 25% target. A quality framework is being developed by NHS England and NHSX to support practices with online appointments.
*non-triage appointments could be cervical screening, health checks, travel vaccinations, flu vaccinations, etc.
- all patients will have the right to online consultations by April 2020 and video consultation by April 2021.

Digital first primary care

*“The term ‘digital-first primary care’ refers to delivery models through which a patient can receive the advice and treatment they need from their home or place of work via online symptom checking and remote consultation. **This means that a patient’s first point of contact with a GP is through a digital channel, not a face-to-face consultation**, although the latter remains an option if required. These emerging models are increasingly common and expected to evolve and expand with the availability, accessibility and acceptability of new technology.” (NHS England, 2018)*

[NHS England](#) provide a simplified Digital First Primary Care patient journey:



Patients can use online consultations to ask questions, report symptoms, submit an administrative request, discuss other information including the ability for a review of a known problem or condition and upload photos where appropriate. The practice usually triages the request and responds within a stated timeframe. (NHS England, 2020)

Frequently asked questions (FAQs) published by [NHS England](#) clarifies that **video consultation (appointment with a clinician via video) is distinct from an online consultation.**

Digital models

There are two types of digital models ([Rodgers et al., 2019](#)):

1. **Asynchronous models:** Includes text-based models of communication, such as e-mail or e-consultations via a website.
2. **Synchronous models:** Includes voice and video models of communication, including video consulting, face-to-face and telephone consultations. Synchronous text-based communication may include instant messaging and web-based 'live chat' applications.

Defining digital inclusion

What is digital inclusion?

Digital inclusion encompasses ([NHS Digital, 2019](#)):

- **Digital skills:** Being able to use digital devices (such as computers or smart phones and the internet). This is important, but a lack of digital skills is not necessarily the only, or the biggest, barrier people face.
- **Connectivity:** Access to the internet through broadband, wi-fi and mobile. People need the right infrastructure but that is only the start.
- **Accessibility:** Services need to be designed to meet all users' needs, including those dependent on assistive technology to access digital services.

Barriers to digital inclusion

Barriers to digital inclusion

Key barriers to digital inclusion are ([NHS Digital, 2019](#)):

- **Access** - not everyone has the ability to connect to the internet and go online
- **Skills** - not everyone has the ability to use the internet and online services
- **Confidence** - some people fear online crime, lack trust or don't know where to start online
- **Motivation** - not everyone sees why using the internet could be relevant and helpful

As access, skills and confidence improve, it is increasingly important to tackle other barriers, including ([NHS Digital, 2019](#)):

- **Design** - digital services should be accessible and easy to use
- **Awareness** - not everyone is aware of digital services and products available to them
- **Staff capability /capacity** - not all health and care staff have the skills and knowledge to recommend digital services / products

Digitally excluded populations

Digitally excluded populations

Some sections of the population are more likely to be digitally excluded than others. These are ([NHS Digital, 2019](#)):

- **older people**
- **people in lower income groups**
- **people without a job**
- **people in social housing**
- **people with disabilities**
- **people with fewer educational qualifications excluded left school before 16**
- **people living in rural areas**
- **homeless people**
- **people whose first language is not English**

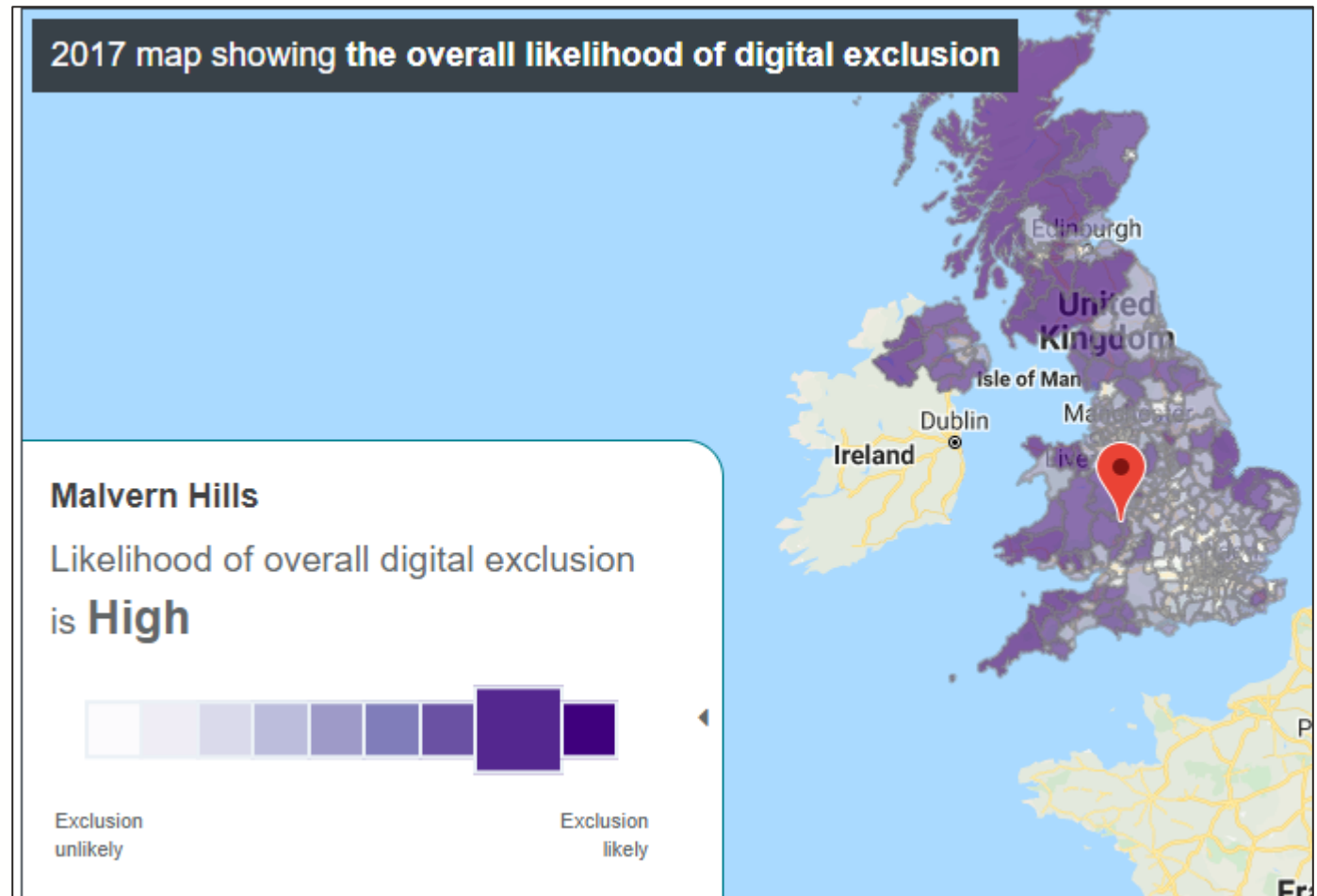
A recent rapid evidence synthesis ([Rodgers et al., 2019](#)) undertaken to inform NHS England policy in 'digital-first primary care' found the **available evidence consistently suggests that patients who use alternative consultation methods are younger and healthier and have higher levels of education, employment and income than patients who use traditional primary care services.**

This has raised concerns about the potential for digital modes and models of engagement in primary care to reduce access for older patients with complex health needs, as well as patients from more deprived areas ([Rodgers et al., 2019](#)).

Digital exclusion and health inequality

*"Digital exclusion can be seen as a form of inequality. **There is a close correlation between digital exclusion and social disadvantages including lower income, lower levels of education, and poor housing.** Health inequalities should be addressed in the local plans being developed in response to the national Long Term Plan." ([NHS Digital, 2019](#))*

The [Digital exclusion heatmap](#) shows overall likelihood of digital exclusion by local authority. It does this by combining indicators including infrastructure (broadband and 4G), access (percentage of adults online), basic digital skills, and social indicators (age, education, income and health). **The heatmap was last updated in 2017.**



Improving digital inclusion

Improving digital inclusion

Approaches to improving digital inclusion include ([NHS Digital, 2019](#)):

- **[Widening Digital Participation](#)**: a national programme funded by NHS Digital to help people boost their digital skills.
- **Digital skills training**: There are [Online Centres](#) in most communities which provide places where people can go to get online in supported environments (e.g. [The Hive, Worcester](#) and [Wye Learn CIC, Hereford](#)).
- **Digital champions**: help others to develop their digital skills and understand the benefits of getting online. Digital Unite's [digital champions network](#) provides learning resources, practical tools and an online community.
- **Intergenerational mentoring**: Younger people who have grown up in the digital age can be a great resource to introduce older people to digital devices and all the things they could do online. An example of this is the successful programme [digital heroes](#) developed in Wales.
- **Assistive technology**: Older people and people with disabilities may be able to use assistive technologies to help them to stay independent and manage their daily lives. Technologies include telehealth and telecare, remote monitoring systems, wearable devices and smart home devices.
- **Free public wi-fi**: Access to free wi-fi can be crucial for people who might find it difficult to afford data costs on their digital device.

Improving digital inclusion

- **Social prescribing digital skills**: In some areas social prescribing is being used to link up with organisations providing digital inclusion support. For example, in Sheffield patients are referred to the [Heeley Development Trust](#) for help with getting online.
- **Digital skills of staff**: Health and care staff do not always have knowledge and confidence in using digital health resources themselves. This means they are unlikely to act as digital champions and recommend digital tools to their patients. This can be one of the biggest barriers to digital inclusion, therefore staff also need to be digitally ready..
- **Raising awareness**: Many people are not aware of the support available to help them get online and improve their digital skills.

Design principles for digital inclusion

Through service design work in Widening Digital Participation pathfinders a set of principles are being developed for designing for digital inclusion ([NHS Digital, 2019](#)):

1. Go to where people are
2. Work with the people who know them best
3. Co-design: from initial discovery phase to live service and beyond
4. Build solutions that fit into people's everyday lives
5. Use existing tools and resources wherever possible
6. Outcomes first, then digital
7. Watch your language

Organisations tackling digital exclusion

[NHS Digital](#) (2019) highlight the following specialist organisations with a wealth of experience in tackling digital exclusion:

- [Good Things Foundation](#): is a national digital inclusion charity, and NHS Digital's delivery partner in the Widening Digital Participation programme.
- [One Digital](#): partnership (funded by the Big Lottery) includes Age UK, Citizens Online, Clarion Futures (part of Clarion Housing Group), Digital Unite and SCVO. They are developing a collaborative approach to training and supporting digital champions so they can help people to learn digital skills.
- [Citizens Online](#): is a national charity set up to tackle the issues of digital exclusion.
- [Digital Unite](#): focuses exclusively on vocational training and support for digital champions. Their Digital Champions Network is a comprehensive training and support system for aspiring and experienced digital champions.
- [Social Tech Trust](#): a charity that challenges themselves and others to think differently about the relationship between tech and society. They provide the investment and support needed for social tech ventures to grow and scale their social impact.
- [AbilityNet](#): is working to build a more digitally accessible world, through accessibility audits, user testing, and expert advice to deliver more accessible websites and apps.
- [mHabitat](#): is an NHS hosted team specialising in codesign, digital skills and inclusion, policy and strategy, and evaluation. mHabitat has been leading work on digital practitioners helping health and care practitioners develop digital skills and confidence so they can make things better for people who access their services.

Patient Groups that benefit from digital services

Patient Groups that benefit from digital services

A recent rapid evidence synthesis ([Rodgers et al., 2019](#)) undertaken to inform NHS England policy in 'digital-first primary care' found for those with access and the ability to use digital services – alternative consultation methods **may be popular among some older patients and patients with mobility or anxiety issues.**

Research by the Nuffield Trust ([Castle-Clarke et al., 2016](#)) on digital primary care found that Skype consultations most benefited patient **groups with additional needs (e.g. those with mobility problems who are unable to access the practice and parents of autistic children who find that taking their child to the practice to see a GP can be very distressing).** Skype also works well for **those who are not in the local area – such as students** who have gone home outside of term time but are receiving ongoing care – particularly as Skype is free to use.

Delivery mode considerations

The mode of engagement (synchronous or asynchronous) may be important for specific populations. It is proposed that some patients group benefit more from synchronous communication while others are more suited to asynchronous, however much of the evidence concerning the advantages and disadvantages of each mode are theoretical, rather than empirical ([Rodgers et al., 2019](#)). Considerations of synchronous or asynchronous models reported in the literature include ([Rodgers et al., 2019](#)):

- Telephone consultations (synchronous models) are challenging for people with hearing or speech problems, learning difficulties or cognitive impairment, or who do not have English as a first language. For some of these groups, written communication, such as webmail or e-mail and e-consulting systems (asynchronous), might be helpful. e-mail exchanges can provide a consultation record, and possibly clearer explanations and subsequent understandings than information obtained during face-to-face contact. This may be particularly advantageous to those who are less articulate or confident in person, those who wish to discuss their consultation with others and those who need help with translation.
- Some patients may be more willing to disclose intimate or sensitive information via an e-mail (asynchronous) than in person or over the telephone, especially if they are at work or in a public place.
- With e-mail (asynchronous) patients can also attach photographs and other digital files, such as audio recordings.
- Asynchronous models are generally unsuitable for urgent health needs.
- Asynchronous models can provide flexibility for both clinicians and patients.
- Asynchronous models may be preferred by patients with anxiety or communication difficulties.
- Synchronous models retain some advantages of interpersonal interaction between patient and clinician. ²¹

Workforce challenges and digital services

Health professionals concerns

A recent rapid evidence synthesis ([Rodgers et al., 2019](#)) undertaken to inform NHS England policy in 'digital-first primary care' found health professionals have expressed the following concerns about digital care:

- workload changes;
- patient access and equity;
- security, confidentiality and privacy issues; and
- medico-legal concerns around medical errors and medical negligence, due to the absence of physical examinations and the potential for miscommunication.

Studies also highlight concerns around inadequate information technology infrastructure to deliver digital engagement. Primary care staff felt that adequate implementation of such technology would also require integration with established appointment and electronic record systems ([Rodgers et al., 2019](#)).

The Topol Review: Preparing the healthcare workforce to deliver the digital future

The Topol Review ([Health Education England, 2019](#)) is an independent review into the digital training needs of NHS staff.

The review found that **introducing new technologies to support patient care and the workforce needs to be seen as change management, with the technology itself simply the tool to enable change.** Most patient care pathways are multifaceted, involving staff with deeply held personal, social and institutional beliefs and practices. To be successful, technology-based change policies need to acknowledge and seek to understand these beliefs and practices. This requires organisations to focus on the following enabling factors:

- a culture of innovation;
- prioritising people;
- an agile and empowered workforce;
- leadership;
- effective governance; and
- investment.

Adoption of digital healthcare technologies requires an effective culture of learning at every level that enables the workforce to reframe their knowledge within an increasingly technology-driven world ([Health Education England, 2019](#)).

Digital Literacy - Providing Digital Skills of the Workforce



Digital literacy is a vital component for a learning workforce ([Health Education England, 2019](#)).

[Health Education England \(2018\)](#) define digital literacy as “the capabilities that fit someone for living, learning, working, participating and thriving in a digital society”.

The Digital Capabilities Framework has six domains of digital literacy:

1. Information, Data and Content
2. Teaching, Learning and Self-Development
3. Communication, Collaboration and Participation
4. Technical Proficiency
5. Creation, Innovation and Research
6. Digital Identity, Wellbeing, Safety and Security

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