



Digital, Data and Technology Transformation

**NHS England Board
Agenda item 8 (Public session)
27 March 2025**



Data, Digital and Technology Transformation

- The NHS Transformation Directorate continues to work to support all parts of the health and care system to put the digital foundations in place so that patients and staff in every part of England can benefit from innovations which improve care and/or increase efficiency. The recently published [2025/26 priorities and operational planning guidance](#) clarifies requirements of ICSs to further embed digitally-enabled care and drive the reform to ensure the NHS is fit for the future.
- With the legal merger of NHS Digital into NHS England, the new NHS England became one of the largest digital and tech organisations in the country. While a significant proportion of tech transformation occurs on the frontline, the national team directly operates services which patients and staff rely on every day, including: 1.4bn monthly transactions on NHS Spine, providing 97% GP coverage to the Electronic Prescription Service and giving 1.6m users across the NHS access to NHS Mail and Microsoft Office 365. Almost 60% of new GP practice registrations are now delivered through a national online system, while the national Cyber Security Operations Centre provides essential security capabilities nationwide.
- As well as our national products and services, we support frontline NHS organisations to advance their digital maturity. We published the What Good Looks Like policy to describe the target maturity we would like organisations to achieve and help them measure progress through the annually run Digital Maturity Assessment. In addition, through the Frontline Digitisation and Connecting Care Records programmes in FY25/26 we are providing c£600m investment along with practical support to trusts investing in electronic patient records systems, foundational infrastructure (e.g. end user devices, data networks, hosting) and shared care records that integrate all the information around the patient in one place.
- Data and digital technology is also a key enabler of many wider NHS priorities, in particular played a crucial role in the recovery of services post Covid, in reducing health inequalities, and building resilience for the future. Examples of this include:
 - Digitally mature trusts operate with approx. 13% improved efficiency compared with their less digitally mature peers.
 - Digital solutions are helping Trusts to treat more patients faster and more efficiently. At Chelsea and Westminster Hospital, a new digital theatre scheduling tool in the FDP has helped to increase theatre use by 4.8%.
- The following slides provide updates against our major programmes of work.

Frontline Digitisation (EPRs)

Health Mission:

- Shift from an analogue to a digital health and care system.
- Data systems that are interoperable between providers will enable the different parts of the NHS and social care to work in a joined-up way.

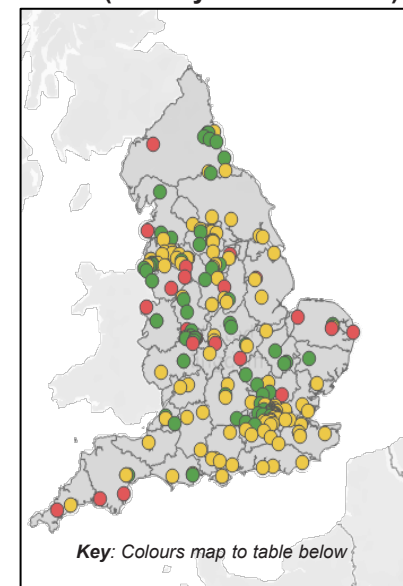
The aim of the Frontline Digitisation (FD) programme is for all secondary care trusts to have an electronic patient record system (EPR) that meets our standards. The ability to access up-to-date patient medical records at any time increases safety, improves outcomes and provides productivity benefits compared with paper records.

Delivery outcomes:

- **Coverage** – We are on track to meet our current target of 96% of trusts having implemented an EPR by March 2026 with the remaining 4% (nine trusts) in the process of implementing them.
- **Capability** – 70% of Trusts will reach the standard for the core level of digitisation set out in What Good Looks like by March 2026.
- **Convergence** – ICBs and Trusts are being encouraged to make decisions about coverage and capability with infrastructure consolidation and convergence in mind, so that we move towards a more convergent digital landscape.

- The programme met its major implementation milestone for 90% of Trusts to have an EPR in December 2023.
- Analysis shows that trusts that are highly digitised have, for example:
 - a **13% lower cost per admitted patient episode**
 - a **4.5% reduction in inpatient length of stay**
 - and a **17.5 % reduction in sepsis mortality**

Map of EPR maturity across trusts (see key in table below)



Future Priorities

- Mobilising a capability that will allow us to deploy specialist skills into Trusts to support implementation
- Continuing to provide support to the c160 active projects that are part of the programme enabling the least digitally mature trusts to improve at pace
- Enabling seamless information sharing through interoperability in patient record systems

	Start April 2022		Current March 2025		Target March 2026	
	No.	%	No.	%	No.	%
Trusts with no EPR, but in process of getting one	29	14%	19	9%	9	4%
Trusts with an EPR needing upgrading or replacing to meet standard	129	63%	105	51%	52	26%
Trusts with an EPR that already meets the standard	47	23%	81	40%	144	70%

Federated Data Platform

A modernised, data-enabled NHS will give patients more control over their data, enable clinical efficiencies, support adoption of future-proof technology and tools, and drive quick-time decision making on a national level.

Historically, data has been held in different systems that do not speak to each other creating burden for staff, delays to patient care and making it difficult to scale and share local innovation. NHS England awarded a contract for a Federated Data Platform (FDP) in November 2023 (rollout began March 2024) to enable NHS organisations to link operational data, so staff can access information in one safe and secure environment. We are already generating tangible benefits like improving operating capacity in theatres which allows maximising existing capacity, and incubating time-saving AI-powered solutions like automated discharge summaries.

Delivery outcomes:

- ✓ Increase in co-ordinated care where clinicians have access to information to treat by **integrating operational data** and making available to service providers.
- ✓ Release clinical time by improving productivity and access to resources and **reducing administrative burden**.
- ✓ **Long term prevention** with targeted intervention at a population level through population insights.
- ✓ Service modernisation with **safe and scalable innovation** via a Solution Exchange (an App store of tools that trusts have developed in FDP that can be deployed by other trusts and ICSs)

- **Over 100 NHS organisations** are currently engaged
- The FDP can support efforts to meet the target for more appointments per week:
- Recent FDP pilots have reduced the inpatient waiting list by **68,000**, increased theatre utilisation by treating an additional **99 patients per month**, and reduced discharge delay days by **28%**.
- A recent FDP pilot solution at the Chelsea and Westminster Hospital Trust helped reduce the inpatient waiting list by **28%**, the equivalent of **10,000 patients** — for all non-emergency surgeries, including cancer treatments.

Future Priorities

Supporting a wide range of use cases for local systems, e.g. for population health management, vaccination and immunisation uptake, and supply chain management.

Considering linkages with other datasets currently out of scope for the national instance of the FDP.

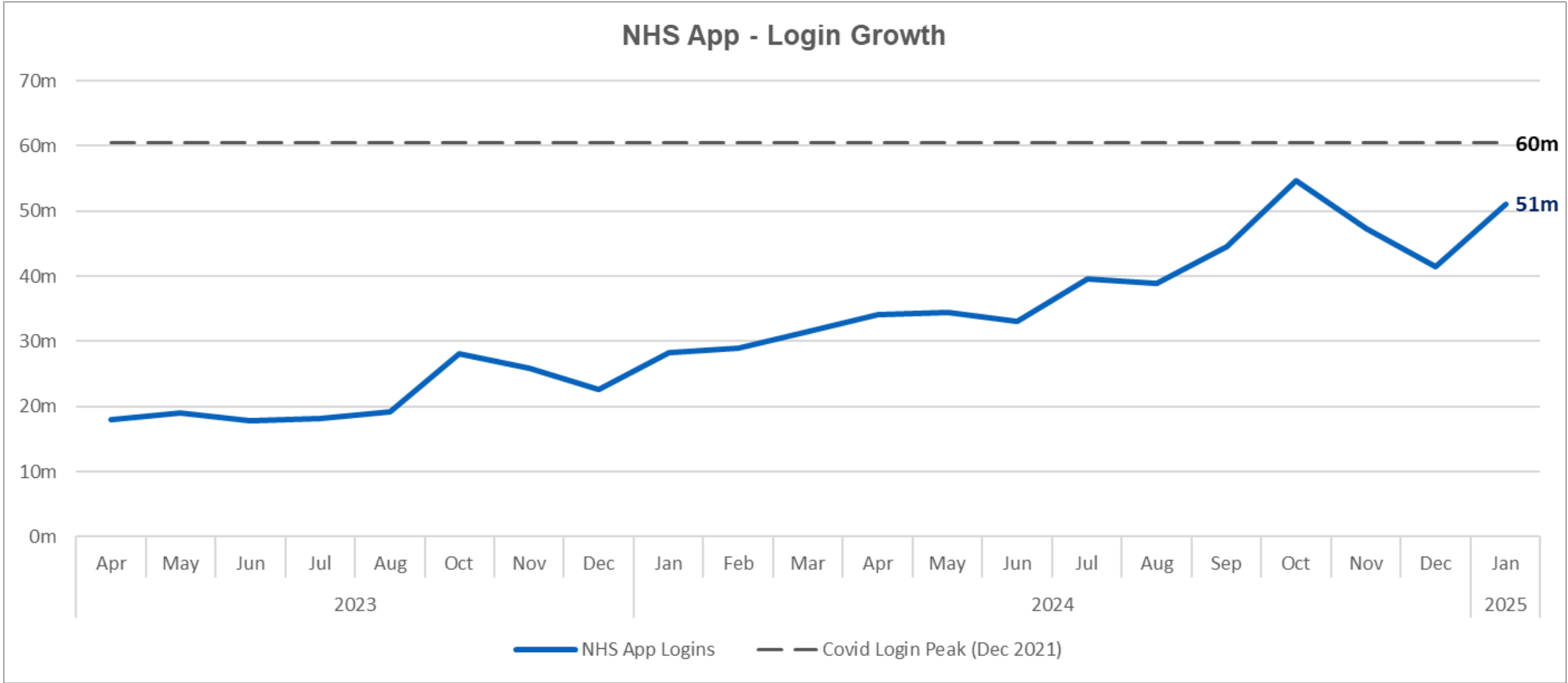
Ensuring public trust in the use and privacy of data.

Options for acceleration of rollout e.g. addressing local capacity barriers to implementation and removing the current restrictions from Cabinet Office.

Patient and Public Facing Services



NHS App use accelerates with over 25% of the population (13+) logging in each month



Significant growth via the NHS App helping to deliver capacity to support constitutional targets

Double forecasted benefits expected by March 2025

Annual
forecast
£178m → **Delivered
Dec 2024
£265m**

857,000 more hospital appointments

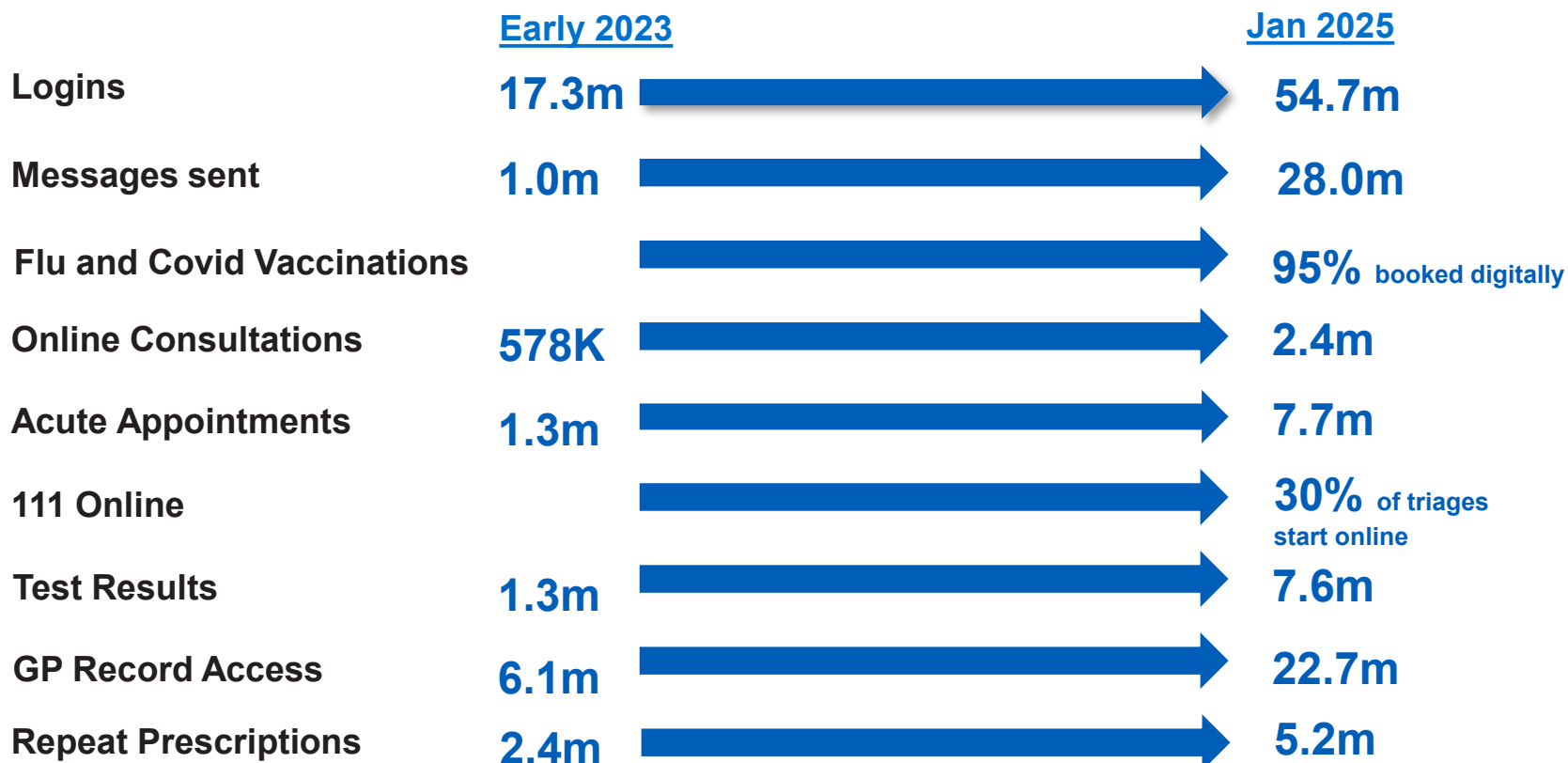
**262,000 hospital admin and 99k
Nursing hours saved** with pre-op
assessments & appointment
management

2.6 million Practice hours saved
through repeat prescriptions,
appointment management, not having
to respond to test results in the NHS
App

**11 million fewer letters sent
across secondary care and the wider
NHS** (8m fewer than 23/24 already)

FEATURES DELIVERED TO CITIZENS

Monthly usage in early 2023 vs now (January 2025)



Digital Primary Care Achievements

Delivered in the last 12 months to March 2025

Optimising pathways and improving access to Primary Care



99% of GPs transitioned from **analogue to digital telephony** and **89%** sub-optimal digital telephony solutions upgraded



Launched **Pharmacy First enhanced Blood Pressure and Contraception Services**



Digitally enabled **GP record updates and referrals** between GPs and pharmacies



Supported practices/ICBs to buy assured **Digital Pathway** and **Demand and Capacity** tools



Delivered over 3.3m Structured summaries sent in total between **GPs and Community Pharmacies**



Supported over 90% of GP practices to now offer **online booking of triaged appointments** to patients



91% of GP practices now offering **Online Consultation**

Enabling integrated care



Launched the **first new core clinical system** into general practice for over 25 years



Continuously improved product Standards and Capabilities and ICB Buying Catalogue



Supported **ICBs/system** to maximise funding allocations in absence of frameworks



Updated GPIT Operating Model (v6) – publication pending



Updated practice digital maturity assessment aligned to ICB level 'What Good Looks Like' approach



98% of GP practices now offering **direct 2-way messaging**



Supported **68** suppliers to deliver **166 assured** products & services for ICBs & care providers

Improving patient data access and management



Launched **Powered by Data**, the NHS's first campaign to highlight how data supports the NHS



Suspended Record Continuity Service launched, delivering £9m value



Increased the number of patients able to **view new information** in their GP record from **1.3m to 31.2m**



Piloted improved GP record handling identifying savings >£10m in practice burdens



Developed a new approach to **improving access to data for direct care**, shaping wider policy



Digital Prevention Services: We're building the NHS that keeps you well, before you need the NHS that makes you better

- 1 Extended the Book a vaccine service to **six vaccination pathways with over 100 million appointments booked**
- 2 **Digital First communications** delivered via the App for more vaccinations and screenings, **saving over £40 million per annum**
- 3 More **seasonal vaccination providers** than ever before – incl. **6,300 community pharmacies using point-of-care services**
- 4 **Managing Vaccinations in Schools pilot (MAVIS)** launched
- 5 **Record a Vaccination Service (RAVS)** launched **this year**, logging over a million seasonal and maternity vaccinations
- 6 Launched the new **NHS Health Checks Online, with at-home blood tests** in early adopter sites
- 7 Launched the Cervical Screening Management Services (CSMS), dispatching **4.6 million invitations and reminders** since June
- 8 Launched **digital breast screening invites**, enhancing accessibility
- 9 **Extended bowel cancer screening** to 50- and 52-year-olds, inviting an additional **1.6 million people**
- 10 **Creating a new personalised prevention service**

Live Services – Overview from 2024/25

6000k+

NHS premises with Fiber connectivity



NHS Marketplace

Launched with incredible response



400%

Improvement in service moving to a new DNS platform. Reducing NCS ES load by circa 40%



Pharmacy First Launched

Enabling management of 7 common conditions locally



77 Million

Meetings conducted



443 Million

Calls

0.5 Billion

Chat messages facilitated

Only 30 days

To deliver the new VPN service



Internal security

100

Security Champions



Data Security and Protection Toolkit

55k

submissions



Incident volumes

4000+

cyber incidents p/a



Cyber Associates Network

2100

members



High severity alerts

15

High severity alerts



Protecting the NHS

23.2bn

transactions

Integrated all server details into the CMDB from different organizations



1.8 million

Devices deployed with MDE protection improving cyber health

70m

Views of the Wayfinder landing screen



650k

Structured consultation sent to GP Pharmacy First



10m

Monthly active NHS app users



44k+

Spine connected healthcare systems



54M

Patients identified by Cohorting as a Service in October



2 billion

Spine messages processed in October



Digital GP

processing digitally over 49% of all registrations.



32m

999 + 111 triages supported this year



>100m

Vaccination bookings made since it's creation in 2021



300k

Can now see prescription tracking in the NHS app



253 million

MESH messages sent in October



>200k GP

registrations processed through online registration service in October. Boots live as of December.



>640k

Staff used CIS/smartcards in October



AWS

First mover with UK Healthlake



99.5%

Of GP Practices now on digital telephony



1.6m

Additional people will be invited for screening



3.7b

GP system transactions per day



>1m staff

Used NCRS and 616k care plans



44 million

Events published to MNS from 3 publishers



18M

Messages delivered through Notify in October



Authentication service

RPA bots to access national system went live and already the system has over 220 RPA bots in regular use

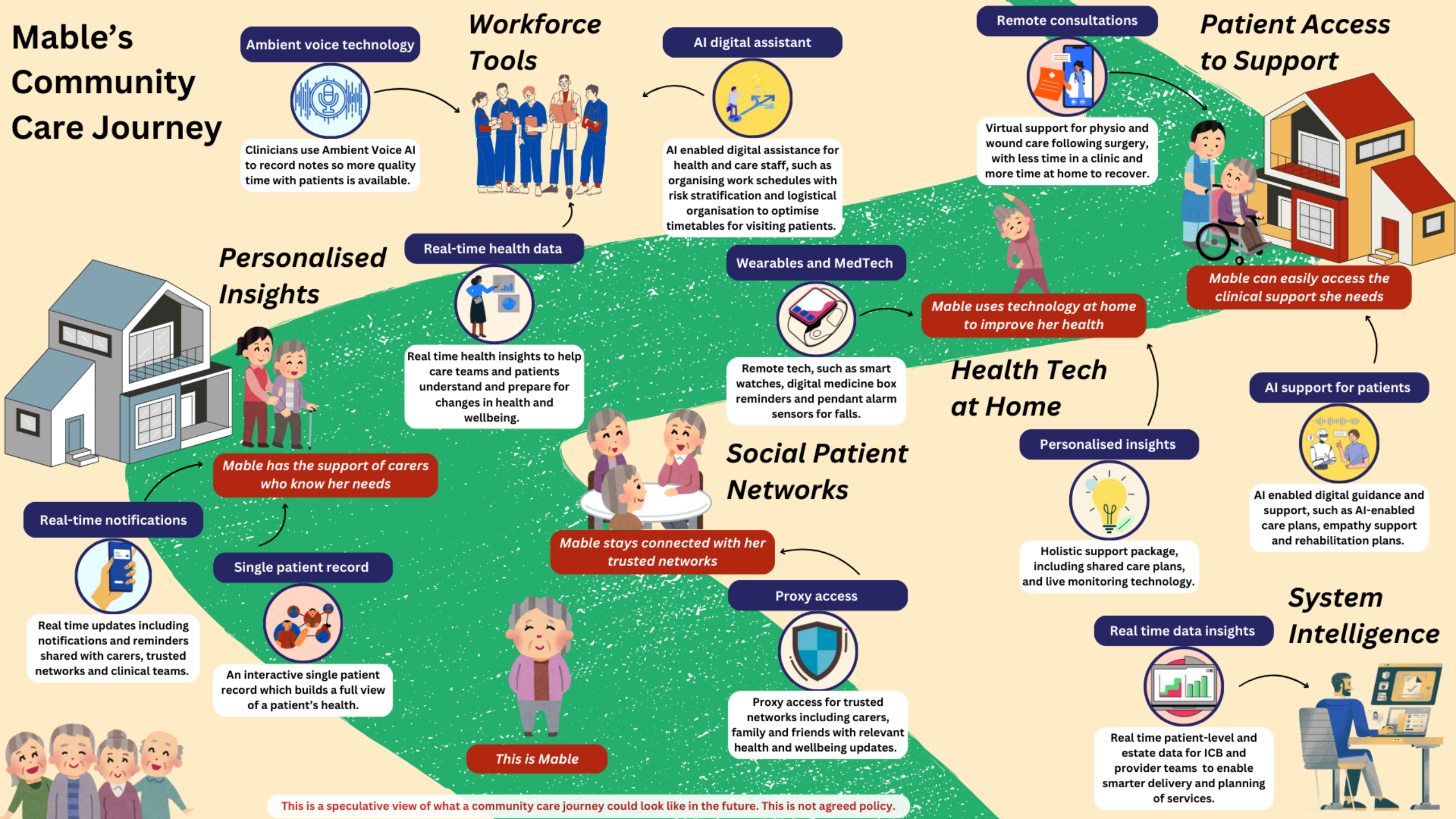




What does the future hold?

- **It is clear that the NHS must achieve greater productivity and transform to meet the needs and expectations of patients.**
- **We have committed to a 2% productivity target.** At Autumn Budget the NHS reconfirmed its commitment to meet a 2% annual average productivity target across the Parliament, and we are developing plans to deliver this with this Government.
- **Technology offers substantial productivity opportunities**, There is strong evidence from both the private sector and healthcare systems worldwide that investments in technology can yield real productivity improvements while simultaneously delivering a host of other benefits.
- **And enables broader benefits for patients and staff that are not always reflected in existing metrics.** A range of technology investments will deliver vital patient benefits, including demand avoidance, improvements in health and wellbeing, reductions in recovery time, or improved operational resilience, which are vital to overall NHS performance, clinical outcomes, and patient and staff experience, but which do not deliver productivity benefits.
- **We are ambitious for the future and have identified opportunities to streamline processes, improve workflow, and better share information across care pathways.** For instance:
 - Using **ambient voice technology** which has productivity benefits and can improve experience of care for patients
 - Pursuing a **Single Patient Record**, to bring patient data together, radically improve care and care coordination, and empower patients.
 - Using technology to support shifting care into the community, including linking Community Interest Companies into the NHS more effectively.
 - Developing **new functionality in the NHS App**, such as the Digital Health Check – enabling us to move an important journey online - and shifting providers from outdated letters to Push notifications within the NHS App.
- **Realising the benefits of new technology requires more than just digital infrastructure.** Tech-enabled transformation requires clinical and operational teams to redesign pathways, appropriate regulatory frameworks that facilitate implementation, and workforce planning and training to ensure staff are equipped with the knowledge and tools to work effectively with new technology.

Mable's Community Care Journey



Health and non-health sources of data,
integrated in one national infrastructure

Behind the scenes

Cohorting Risk detection Messaging Predictive AI Automated eligibility

Wider (linked)
determinants

Genomics

Behavioural

Clinical

Single Patient Record

A single-source of truth
for patients and health
professionals throughout
a care journey



Data is used for care and
planning

Data flows to form

Data flows to inform

A suite of processing components that enable
predictive targeting and outreach at a national,
local and individual level

Outcomes feed into the system
and enable continuous learning

Digital Prevention

Components enable a
personalised prevention
platform with a range of
joined-up services

Digital (online)

NHS
services

Relevant non-NHS services

AI Tools

Data infrastructure lays the
foundations for AI tools, such as
Health Coaches, for prediction
and patient support

Data used to direct users towards

Behaviourally
informed support
& advice

At home testing
& results

Appointments

Health assessments

Vaccinations

Support delivered in the setting where people want it

User experience