Using information and technology to transform health and care
Welcome to NHS Digital

We are the national information and technology partner to the health and social care system.

We’re at the forefront of the drive to transform the health and care system using digital technology.

Our work with data and technology supports better health and care in the NHS and develops services that empower citizens and make taxpayers’ money go further.

Frontline professionals also rely on our live IT infrastructure and digital services to do their jobs, every day.

Our data and information services are used by planners and policy makers to improve care and by researchers to find new ways to prevent illness and improve people’s lives.
Our vision:

To harness the power of information and technology to improve health and care.

The NHS and social care services are facing rising expectations and escalating demand from an aging population. Digital technologies and the better use of data and information have a critical role to play in meeting these challenges, improving services and transforming the way citizens manage their own health and care.

Our work:

• Empowers the public to make informed choices about how they use services and manage their health and care.

• Provides support for doctors, nurses and social workers by improving access to information and the ease with which they can collaborate with colleagues.

• Connects the health and social care system, improving the secure flow of information, informing research and the smarter use of resources.

• Maintains public trust by improving cyber security and enabling individuals’ preferences about the use of their data to be implemented.
Our plan for 2017–18 focuses on transforming the way technology and information is used in 10 key areas of the health and care system. It supports the National Information Board’s ‘Personalised Health and Care 2020’ strategy and is supported by a £4.2 billion government investment over five years.
How is NHS Digital transforming health and care?

Through our 10 areas of work
Patient engagement, self-care and prevention

A new generation of digital services has the potential to revolutionise how we all think about and manage our own health and care – and to reduce pressure on frontline services.

We are working to unlock the power of this technology by giving patients a single, secure point of access to personalised information and the tools to choose how they use services. We are building a new library of apps and wearable technologies and we are rolling out unified, free Wi-Fi across health and care to give easy digital access to patients and clinicians.

Our programmes:

**Citizen Identity**
Providing a single, secure identity for each member of the public across all health and care services.

**NHS.UK**
Creating a single point of public access to online information and service interactions.

**Health Applications**
Recommending wearable technologies and digital applications that allow citizens to manage their health and allow clinicians to remotely monitor patients’ health.

**Widening Digital Participation**
Providing hard-to-reach communities with skills to help them access digital services.

**Personal Health Record**
Developing technology to support digital and online clinical interactions.

**Wi-Fi**
Providing accessible digital infrastructure for use by clinicians and patients, free at the point of care.

**Our 2017–18 investment**
£31.4 million (revenue) and £12.3 million (capital).
Did you know...
Patients view their GP records online
680,000 times a month
Urgent and emergency care

Emergency departments across the country are under pressure. Digital technologies provide powerful tools not only to reduce crowding in A&E but to transform the quality of care.

By improving triage of urgent and emergency cases, we can direct people to the right care, first time. A new online service and constantly updated clinical algorithms will direct patients to the most appropriate treatment, avoiding unnecessary pressure on emergency departments. Fast and secure access to patient and service information will provide much better support for clinicians treating emergency cases and result in quicker and better targeted treatment.

Our programmes:

Clinical Triage Platform
NHS 111 Online provides digital access to patient triage and urgent care services. The Clinical Triage Platform will use next generation technology to triage patients’ urgent care needs.

Access to Service Information
Developing an open platform for clinicians to access real time and up-to-date information about available urgent and emergency care services.

Our 2017–18 investment
£15.2 million (revenue) and £8.8 million (capital).
Did you know…
The NHS Pathways clinical assessment tool has **halved** the cost of an urgent call.
Digital transformation in general practice

Information technology has the power to revolutionise the relationship at the heart of England’s healthcare system: the relationship between GPs and their patients.

We are building on existing services that allow patients to interact online with their GP to provide much richer services and choice, including online consultations and better tools to manage appointments, records and prescriptions. Behind the scenes, we’re also working to ease administrative burdens on general practice, link up IT systems and provide a new generation of digital solutions giving GPs better data and decision support.

Our programmes

GP Operational Systems and Services
Transitioning GP systems to the SNOMED clinical terminology to help minimise burden.

Existing GP Technologies
Increasing the uptake of online access to GP services such as appointments or prescriptions.

Technology for GP Transformation
Developing the next generation of digital solutions to support clinicians and give patients greater access to online services.

GP Data Implementation
Improving the availability of operational data for general practice performance management, commissioning and research under appropriate governance.

Our 2017–18 investment
£15.8 million (revenue) and £7.6 million (capital).
Integrated care and social care

Incompatible IT systems are too often getting in the way of joined-up health and social care services in England – but digital technologies have immense power to do the opposite. They can link up providers, drive efficiencies across the system and provide a more seamless experience for the public.

Our teams are working to get information flowing safely and securely between health, social care, mental health and community services. We’re working to create the architecture, interfaces and shared standards that connect systems and allow frontline professionals to share information and improve the care they can offer.

Our programmes:

Interoperability and Architecture
Enabling better digital information sharing mechanisms and providing common standards to support interoperability.

Digital Interoperability Platform
Developing information sharing capabilities and standards at national, local and patient level to improve access to patient records.

Social Care
Working with adult social care to improve outcomes and efficiency by increasing digital maturity and whole system integration.

Our 2017–18 investment
£23.1 million (revenue) and £8.6 million (capital).
Did you know...
The Child Protection – Information Sharing system helps to protect over

72,000 vulnerable children
Digital medicines

Twenty-two million people are already able to use the Electronic Prescription Service, which manages 1.7 million prescriptions each day. We are developing new services to support options like home delivery and online prescription management.

We are building a much better view of how medicines are used across the NHS that will support more accurate, safe and efficient prescribing. And we are also connecting pharmacists to NHS IT systems, allowing this key professional group to share information with other care settings and provide better advice for their customers.

Our programmes:

Digitising Community Pharmacy
Accelerating digital maturity in the community pharmacy sector, including digital services for service users.

Pharmacy Supply Chain and Secondary Uses
Developing a fully digitised medicine supply chain and a complete view of medicine use across all health and care settings.

Integrating Pharmacy Across Care Settings
Maximising the opportunities for pharmacists to integrate with other professionals and contribute to patients’ care pathways.

Our 2017–18 investment
£8.1 million (revenue) and £3.6 million (capital).
Did you know…
More than 1.3 million items are prescribed using the Electronic Prescription Service every day.
Elective care

The NHS Electronic Referral Service we introduced in 2015 saved the NHS £10 million in its first year of operation. It combines electronic booking with a choice of place, date and time for initial hospital appointments.

We are extending its service, providing more help for clinicians managing referrals and putting patients in control. Better information about providers, comprehensive service coverage and more intuitive interfaces will provide more citizens with meaningful choices about how they are treated in hospitals and clinics.

Our programmes:

Digital Referrals and Consultations
Delivering the referral assessment service (‘refer now, book later’).

Our 2017–18 investment
£22.9 million (revenue) and £7.4 million (capital).
Did you know…

Approximately 45,000 patients use the e-Referral Service every day.
Paper-free at the point of care

We are working with health and care organisations to support digital innovation that meets local needs. That means helping partners get the right IT systems in place, giving specific support in areas like child health and working to ensure the health and care workforce has the skills and professional support to get the best out of technology.

Our programmes:

**Digitising NHS Providers**
Supporting local and national organisations to adopt digital solutions that enable new care models.

**Digital Child Health**
Transforming the collection and sharing of children’s health information.

**Digital Diagnostics**
Developing high quality and consistently applied diagnostic standards.

**Digital-Ready Workforce**
Equipping the health and care workforce with the skills, knowledge, values and behaviours to make best use of information and technology.

**Our 2017–18 investment**
£10.3 million (revenue) and £100,000 (capital).
Did you know…

1,200 peer reviewed research papers relied on our data in 2015

and we produced

292 official, national statistical publications last year.
Data outcomes for research and oversight

We manage over 100 different data sets and collections. Our data is vital to frontline care and clinical decision making, transparency and accountability, commissioning and policy making, medical research and the life sciences industry.

We are developing new tools and services that support better use of this data and exploit developments in data science, such as ‘big data’ and ‘linked data’, to unlock its true power. We are also playing a key role in driving up data quality and improving the security, accessibility and flexibility of the services used by researchers, clinicians and system managers to improve care.

Our programmes:

**National Data Services Development**
Enhancing NHS Digital’s data services by removing identifying information, improving processing and giving patients clarity about how their data is used.

**Data Content and New Data Collections**
Defining our strategic approach to data collection across the health and care system and developing an implementation plan to deliver this.

**Innovative Uses of Data**
Developing new uses of data and analytics, including linked data to support Sustainability and Transformation Plans and Vanguards.

**Our 2017–18 investment**
£54.3 million (revenue) and £11.6 million (capital).
Did you know…
Our Data Access Request Service received 1,000 applications for data and securely disseminated more than 10,000 data files in 2016-17 alone.
Infrastructure

We maintain the national infrastructure critical to the day-to-day operation of the NHS. This includes the NHS Spine, which provides the technical backbone on which many services depend, connecting over 23,000 systems across more than 20,000 organisations.

We aim to make better use of this infrastructure and open it up to a wider range of users. During 2017–18, we will start delivery of a new data network covering health and social care services and extend use of our NHSmail 2 platform, with its improved audio, video and web conferencing capabilities, to a wider range of health and care settings.

Our programmes:

**NHSmail 2**
Using NHSmail to enable integrated email and digital collaboration for social care, optometrists, dentists and other health and care settings.

**Health and Social Care Network:**
Starting the delivery of the Health and Social Care Network to provide better and more cost-effective digital connectivity for health and care.

**Our 2017–18 investment**
£98.7 million (revenue) and £14.3 million (capital).
Public trust and security

Public trust is critical to harnessing the power of information and technology to improve health and care. We want citizens to have complete confidence that their data is secure, shared only when appropriate, and shared only for their benefit. We provide a range of support for local organisations to build better cyber security and we are leading the technical development of the new model for implementing individuals’ preferences for the sharing of their data.

Our programmes:

Data and Cyber Security
Providing national and local capabilities to further strengthen the security of data and systems across the health and care system.

National Opt-Out
Developing an end-to-end solution and delivery model to allow patients to set their data sharing preferences for purposes beyond their individual care.

Information Governance
Supporting implementation of the National Data Guardian Review of data security and information sharing.

Our 2017–18 investment
£21.2 million (revenue) and £7.3 million (capital).
Did you know...
Our hospital activity data enables payments for
£30bn
Our other areas of work and development

Throughout our 10 core areas of development and across our established services, we are working to deliver excellence, security, reliability, accessibility and responsiveness. We are also working hard to drive the uptake of our services.

Key areas of activity include:

National systems, networks and services:
• electronic prescriptions and referrals
• summary care records
• emergency and out-of-hours services
• screening, blood and transplant services
• GP payments service
• NHS national service desk
• NHS secure email service
• NHS Spine

Data and information:
• primary, secondary and social care
• mental health
• prescribing
• population and clinical audit

Others:
• data collection and security
• standards
• clinical governance
Did you know…
The new NHS Spine:

- saves £21.2 million in annual running costs
- is 14 times faster than its predecessor
- handles one third more traffic
- had 100 per cent messaging reliability for the past 16 months

and is far easier for developers to work and innovate with.
Did you know…

A clinician accesses a Summary Care Record every 5 seconds getting fast, secure access to vital patient information.
2017–18 commitments

Helping the public manage their own health and care

September 2017: NHS.UK, an upgrade to the NHS Choices website, will offer personalised health and care tools to the public. Patients will initially be able to use NHS.UK to access online GP services and download their GP record.

September 2017: The new NHS 111 online service will allow patients to enter their symptoms online and be directed to the right care, quickly and reliably.

September 2017: Improve support for suppliers delivering innovative apps and services to patients by providing clearer guidance on what they need to do to connect to NHS Digital systems and infrastructure.

December 2017: All GP surgeries covered by a unified free Wi-Fi service and start rollout to secondary care settings. Complete coverage of NHS by April 2019.

March 2018: Improve information for patients about their prescriptions on the Electronic Prescription Service.

Supporting frontline professionals

September 2017: Applications open for the NHS Digital Academy, a cross-system collaboration to provide CIOs and CCIOs with the skills to lead digital innovation.

March 2018: Get 65 per cent of local authorities and 45 per cent of NHS settings live on the Child Protection – Information Sharing system, which alerts health and social care teams when they are dealing with vulnerable children.

March 2018: Provide enhanced summary care records, improving clinicians’ access to information from the patient’s GP record, to 43 clinical commissioning groups.

March 2018: Allow urgent care settings to use the Electronic Prescription Service, which sends electronic prescriptions to a patient’s choice of pharmacy.

December 2017: All GP surgeries covered by a unified free Wi-Fi service and start rollout to secondary care settings. Complete coverage of NHS by April 2019.

March 2018: Improve information for patients about their prescriptions on the Electronic Prescription Service.
**Improving infrastructure and integrating services**

**October 2017:** Begin migration from the system’s single-supplier broadband network to the Health and Social Care Network, a new standards-based, multi-supplier system.

**March 2018:** Complete rollout of the new NHSmail platform across community pharmacies, social care providers, optometrists and dentists.

**March 2018:** Launch the new Health and Justice Information Service, providing digital services for prisons, immigration removal centres, youth institutes and secure children’s homes.

**Building a smarter system that protects patient data**

**December 2017:** Speed up the system that processes information about hospital activity, providing near real time data to customers.

**December 2017:** Deliver a safe digital environment to allow authorised researchers to access NHS Digital data remotely and securely.

**March 2018:** Set up a new Innovation and Virtual Data Science Centre across key health and care bodies to improve use of advanced analytical techniques.

**March 2018:** Introduce digital and non-digital systems to allow individuals to choose to opt out of the use of their data for purposes other than their direct care and ensure these preferences are implemented across the system.
Did you know…
Since our bowel cancer screening programme began, we have issued over 36 million test kits leading to the identification of more than 28,000 cancers.
The reason NHS Digital exists is to provide technology and information that improves people's lives. All our work to achieve this objective is underpinned by our values. We are:

• Professional
• People-focused
• Innovative
• Trustworthy

We are also committed to continually improving our leadership, workforce, processes, systems and culture to ensure we are in the best possible shape to lead digital change. We recently completed a capability review to identify steps we need to take to ensure we can meet our commitments.

How we work and how we improve

We are addressing four main areas for change:

1 Modernising our delivery model
We're improving our commercial capabilities, establishing a systematic approach to designing and delivering our products, strengthening our cyber capabilities and improving our information and analysis delivery model.

2 Transforming how we work with customers, stakeholders and partners
We’re working closely with customers on new products and ways to support provider organisations to accelerate their adoption of our services. We’re fostering innovation by stimulating new thinking on data, technology and building creative communities.

3 Improving accountability, governance and decision-making
We are embedding an integrated assurance process across our programmes, establishing a new investment sub-committee of our board and working to improve system-level governance.

4 Developing our workforce to respond to demand and improving workforce planning
We are improving workforce planning, extending our graduate and apprenticeship schemes and digitising our recruitment processes. We will produce a new locations strategy and develop flexible recruitment, development and retention models to ensure we have the right talent to meet our commitments.
The work of NHS Digital is delivered in line with the National Information Board’s Personalised Health and Care 2020 strategy and is supported by a £4.2 billion Government investment.

We are the lead national delivery organisation for the ‘10 Domains of Delivery’ of the strategy (as outlined in this document) which connect the work of all partners to clearly defined benefits for the public and frontline professionals.