



Joining up care & information beyond integrated care systems

Patients Know Best & the NHS App



A blueprint for a connected health and care system

Connected Nottinghamshire

Patients Know Best

NHS Digital



Patients Know Best

Patients Know Best (PKB) is the world leader in personal health records (PHRs). In one application, the UK-based social enterprise and B Corporation offers unrivalled access to the most comprehensive dataset from primary, secondary, patient-contributed and device-generated data. This ‘live’ record is accessible by patients, carers and their entire health and care team from anywhere in the world.

Summary

In 2019, Patients Know Best and NHS Digital partnered to offer patients all their PKB features, functionality and data, inside the national NHS App interface. As a result, PKB became one of the first products to integrate with NHS login’s new encrypted single sign-on and the first personal health record to integrate with the NHS App.

Featured in the [NHSX Tech Plan for health and care](#) (February 2020).

The Nottingham and Nottinghamshire Integrated Care System (ICS) was the first to benefit from this integration in March 2020. It supported the ICS to fulfil the requirements of their Public-Facing Digital Services mandate for empowering local people to better manage their health, to self-care, self-manage and self-serve. However, the launch came as the impact of the global COVID-19 crisis was being realised. This propelled registered patients to safely self-manage their care, with full control over who could see their information and provide support remotely. It also allowed families to stay connected with their loved ones being cared for in the Intensive Care Unit at Sherwood Forest Hospital.

A full benefits analysis was carried out which looked at quality and safety, reduction of inequalities, and cost and efficiency savings. Value for money was measured using a return on investment (ROI) calculated at 6:1. The ICS identified that using PKB and the NHS App integration to increase digital processes and interactions, and to support the local population to access digital services, attributed to:

- ♥ £6.40 in savings for every £1 invested
- ♥ £100K saved per organisation each year
- ♥ 36p saved per digital letter (from 42p - 6p)
- ♥ a reduction in the local carbon footprint
- ♥ convenience, cost savings and capacity
- ♥ positive outcomes and feedback from patients.













A national first

In 2019, Patients Know Best (PKB) partnered with NHS Digital to develop a landmark integration between the PKB personal health record platform and the NHS App.

This built on current features to give patients access to their PKB data and full functionality inside England's national health app. As a result, PKB became one of the first products to integrate with NHS login's new encrypted single sign-on and the [first PHR to integrate with the NHS App](#). This functionality aligns with NHSX's stated vision for the NHS App as a platform to integrate with and the 'single front door' to health and care services.

The Blueprint Model: 'All-in-One'

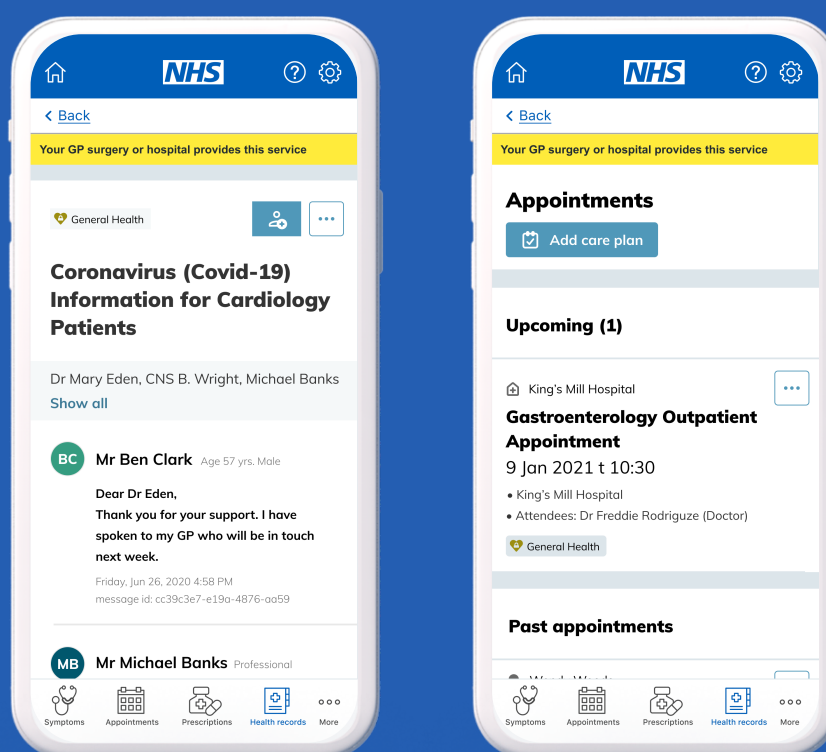
The All-in-One integration from PKB and NHS Digital, empowers patients to seamlessly access their PKB personal health record inside the NHS App interface to self-manage and coordinate their care. For the first time this will give patients the benefit of accessing everything in one place, including:

-  appointments
-  test results
-  care planning
-  team-based messaging
-  symptom tracking
-  journals
-  consultations
-  questionnaires
-  allergy information
-  prescriptions
-  links to forums
-  resources

All this and more is now securely available from the ‘digital front door’ of the NHS App interface using single sign-on and smartphone enabled biometric ID. Ian Phoenix, NHS Digital Director of Citizen Health Technology, said:

“Integrating personal health records with digital tools like the NHS App, underpinned by NHS login, will empower patients to have greater visibility and ownership of their own medical records – so they are all in one place and accessible to them whenever they are needed.”

The NHS App, delivered by NHS Digital, is a simple and secure way to access a range of NHS services on a smartphone or tablet and is available to all patients aged 13 and over who are registered with an NHS GP practice in England.



A novel opportunity for Integrated Care Systems

For the 18 Integrated Care Systems in England, this integration presents a novel opportunity to join up information and systems like never before - not only across the ICS footprint but broader, wherever a patient receives care.

Joining up data and systems beyond the ICS, with the ability to share information between professionals outside of their host organisations, paves the way for a truly national 'digital' health service. However, to realise this vision for a unified national health and care dataset requires collaboration on an unprecedented level. For the first time, technology is no longer the barrier and together, we have the potential to radically transform the system to meet the needs of the future NHS.



ONE RECORD,
ONE APPLICATION



REMOTE MANAGEMENT



REAL TIME
DATA



PREVENT SYMPTOM
ESCALTION



BORDERLESS
DATA & CARE



INCREASED CAPACITY



EMPOWER HEALTH
& WELLNESS



RELEASE
SAVINGS



AVAILABLE IN
& 20 LANGUAGES



ENVIRONMENTALLY
FRIENDLY

Dr Mohammad Al-Ubaydli, CEO and Founder of Patients Know Best, said:

“This integration brings the latest in digital innovation to local care, with England’s NHS App - one of Europe’s most deployed national health care apps and PKB as Europe’s most deployed personal health record platform. This has never been possible before now, and we’re proud of the contribution we have made towards Nottinghamshire’s person-centred approach.”

The Nottingham and Nottinghamshire Integrated Care System (ICS) became the first to benefit from the joint integration with regions across London, Sussex, Cheshire and the North West expected to follow the same model.



**£ 100K saved per organisation
each year**



A mandate from the people of Nottinghamshire

Nottingham and Nottinghamshire ICS

- ♥ Population of 1.1 million people
- ♥ 2 large acute trusts
- ♥ 130 GP practices
- ♥ 2 local authorities
- ♥ 1 mental and community trust



ICS members include;

- Nottingham City Council
- Nottinghamshire County Council
- City Care
- Nottingham and Nottinghamshire CCG
- Nottingham University Hospitals NHS Trust
- Sherwood Forest NHS Foundation Trust
- Nottingham Healthcare NHS Foundation Trust

In March 2020, the Nottingham and Nottinghamshire ICS became the first ICS to launch the PKB - NHS App integration. It followed 18 months of public engagement to co-design the Connected Nottinghamshire Public-Facing Digital Services Strategy. Known locally as the 'people's digital services strategy', it met the contractual and policy obligations of the ICS and established a citizen-centric digital health services programme that was locally-driven and designed around the needs of local people, to consider any socio-economic factors.

The outreach identified four key themes for empowering local people to better manage their health, to self-care, self-manage and self-serve:

- ♥ Different types of consultations – video, voice, messaging and long-term condition and disease management through the use of questionnaires and templates.
- ♥ Information prescribing - access to information and resources including targeted materials information such as leaflets, videos and peer-to-peer support forums.
- ♥ Community signposting - access to information about local community services and support groups.
- ♥ Self-care and management - access to information in a health and care record as well as the ability to connect devices and monitor/manage their own care using symptom and measurement tracking.



**£ 6.40 saved
for every £ 1 invested**

The right solution

The NHS App fulfilled some of the requirements of the ICS however, to fully meet their public obligations they would need to enhance the NHS App's current features by integrating further datasets and functionality. The NHS App and NHS login teams met the challenge, taking the integration from a standing start in mid-December 2019 to initial go-live at the end of March 2020, a swift turnaround for a first of type.

“We were looking for a sustainable, user friendly and person-centred system and advanced functionality that would encourage a partnership approach to health and care management between patients and professionals. Patients Know Best was the only supplier that could help us to fulfill this ambition”, said Alexis Farrow, Head of Strategy and Transformation at Connected Nottinghamshire.

“We also valued the company vision, ethos and partnership culture because it was evidently clear from the outset that we're all here for the same reasons - and that's to make our health and care services more joined up and responsive to better meet the needs of local people, no matter where they end up being cared for. That's our obligation to our residents and that's exactly what we have set out to do.”

Over 55,000 patients across Nottinghamshire registered with the NHS App

the highest percentage of the overall population (August 2020)

Going live (Mar 2020)

The PKB platform with its full record, advanced functionality and ability for partnership care, was launched in March across Nottinghamshire. It was supplemented with the trusted public-facing interface of the NHS App the following month.



**83 out of 130 practices live
(July)**

Responding to COVID-19

The launch came at a critical time when the impact of the global COVID-19 crisis was only just coming to light. The crisis, which compelled the NHS to rapidly redirect care to reduce emergency attendances and hospital admissions whilst striving to provide safe and effective care for patients in the community, immediately enabled the benefits of the deployment to be realised.

The PKB-NHS App integration allowed registered patients to safely self-manage their care, with full control over who could see their information to support them remotely.

**Rapidly deployed in 3 weeks across
Sherwood Forest Hospitals NHS FT (April)**

Leading from the front with clinical engagement

Dr Nicole Atkinson, GP & ICS Clinical Lead for the Nottingham and Nottinghamshire ICS, has been instrumental in leading the implementation and championing clinical engagement across primary care. She said:

“The changing landscape through COVID-19 has seen significant challenges but also immense opportunities as our workforce and patients adapted at pace and scale to the new ‘normal’. **With this came the digital transformation many of us have been dreaming about.** However, it happened in the space of weeks, not years. Getting this buy-in for change has meant digitally enabled care delivery models are now seen throughout Nottingham and Nottinghamshire and this is starting to be echoed across the country.”



Letters from 42p to 6p

Keeping families connected

The restrictions on visiting at Sherwood Forest Hospital during COVID-19 meant that families were kept apart at their time of need.

To offer comfort and to help families stay connected with their loved ones in the Intensive Care Unit, the team offered families a PKB digital patient diary. This opened the lines of communication with families, and also helped recovering patients to fill the gap in their memory.





The results

A full benefit analysis has been carried out focussing on key areas of improvement that will further benefit the population of Nottinghamshire. This looks at quality and safety improvement, reduction of health and care inequalities, and cost and efficiency savings.

Jaki Taylor, SRO and Director of Nottinghamshire Health Informatics Service, said:

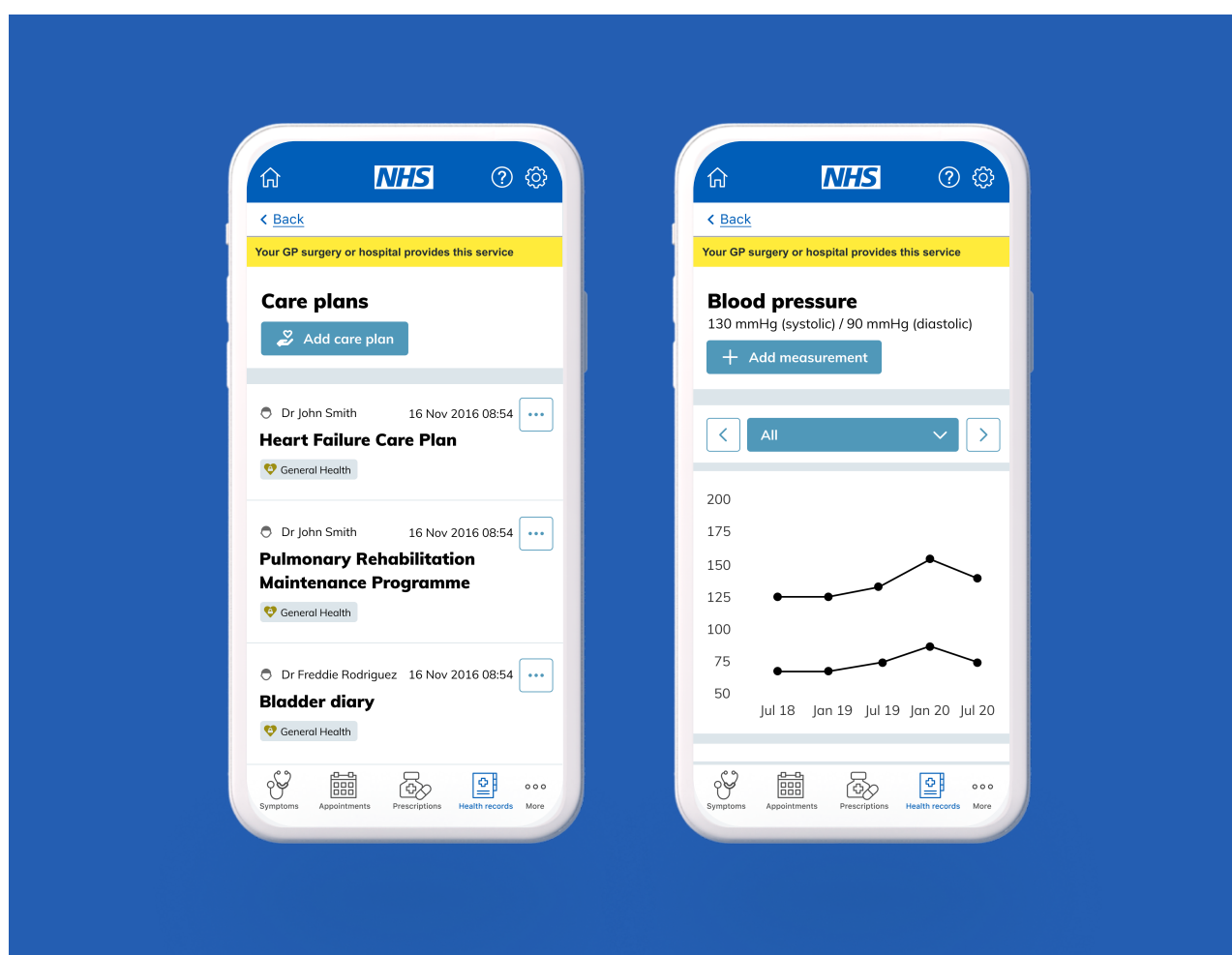
“The use of PKB, particularly through the NHS App provides a single front door to which patients can interact with their health record. We have already seen huge benefits, yet we are only just starting on this journey. PKB provides us with a vast amount of opportunities to transform the way in which we connect health and social care with the people of Nottinghamshire.”

Value

Value for money was measured using cost and efficiency savings and a return on investment (RoI) calculated at 6:1. Through the increase of digital processes and interactions, coupled with supporting the local population to access digital services, attributed to **£6.40 in savings for every £1 invested.***

Within a few months, the cash releasing benefits started to be realised with the removal of paper resources and processes;

- ♥ Digital correspondence: from 42p to 6p per letter
- ♥ Removal of paper leaflets to digital formats; £100,000 saved per year, per organisation
- ♥ Digital management of long-term conditions: reduction in face-to-face appointments and convenience to patients with reduced expenses on travel, parking etc.



* The Tinder Foundation, Health & Digital: Reducing Inequalities, Improving Society, 2016.

Environmentally friendly and sustainable care

One in 20 journeys on British roads is attributable to the NHS - employees driving to work, patients driving to appointments, ambulances collecting patients and lorries and vans making deliveries. That's an estimated 4 - 5% of the country's overall carbon footprint. The ICS is cutting down face-to-face appointments to reduce traffic, paper waste and unnecessary expense, to radically lower its local carbon footprint in line with the national policy for a greener NHS.

Improving health and social wellbeing

By empowering and enabling people to self-care, self-serve and self-manage, the over medicalisation and over treatment of patients has also significantly reduced. This benefits a patient's general health and social wellbeing and generates savings directly associated with the procurement of drugs.

Social prescribing, signposting of alternative therapies and digital access to public services, has also made services more accessible, convenient, person-centred and inclusive.

Patient feedback

Patients are providing valuable anecdotal evidence of their new experience. In one example, a patient who has a son with complex needs stated that he would often get anxious when travelling to his frequent appointments across a number of health and care settings. This anxiety increased while waiting to be seen. Offering appointments in a digital way has significantly improved the family's quality of life and the health and care services they routinely access.



Access to my reports and other medical information is important to me for liaison between other support organisations I deal with.



This is helpful for my GP in diagnosis and monitoring issues that affect me, as well as recording evidential facts of symptoms for a referral to at a later date.



There is the added bonus of pre-advising the GP of the symptoms experienced with the app. I believe that this is useful to the GP ahead of a consultation.





It will help people with long-term conditions with self-management and monitoring of symptoms.



It's great to have somewhere to store everything health related which I may need to share. I've already included my physio care plan and retinal photos from the optician in my PKB account.



This is a useful tool for patients and NHS services alike and I will use it on a regular basis to keep myself, and medical professionals, updated on health issues affecting me.



API for Patient-Generated Data

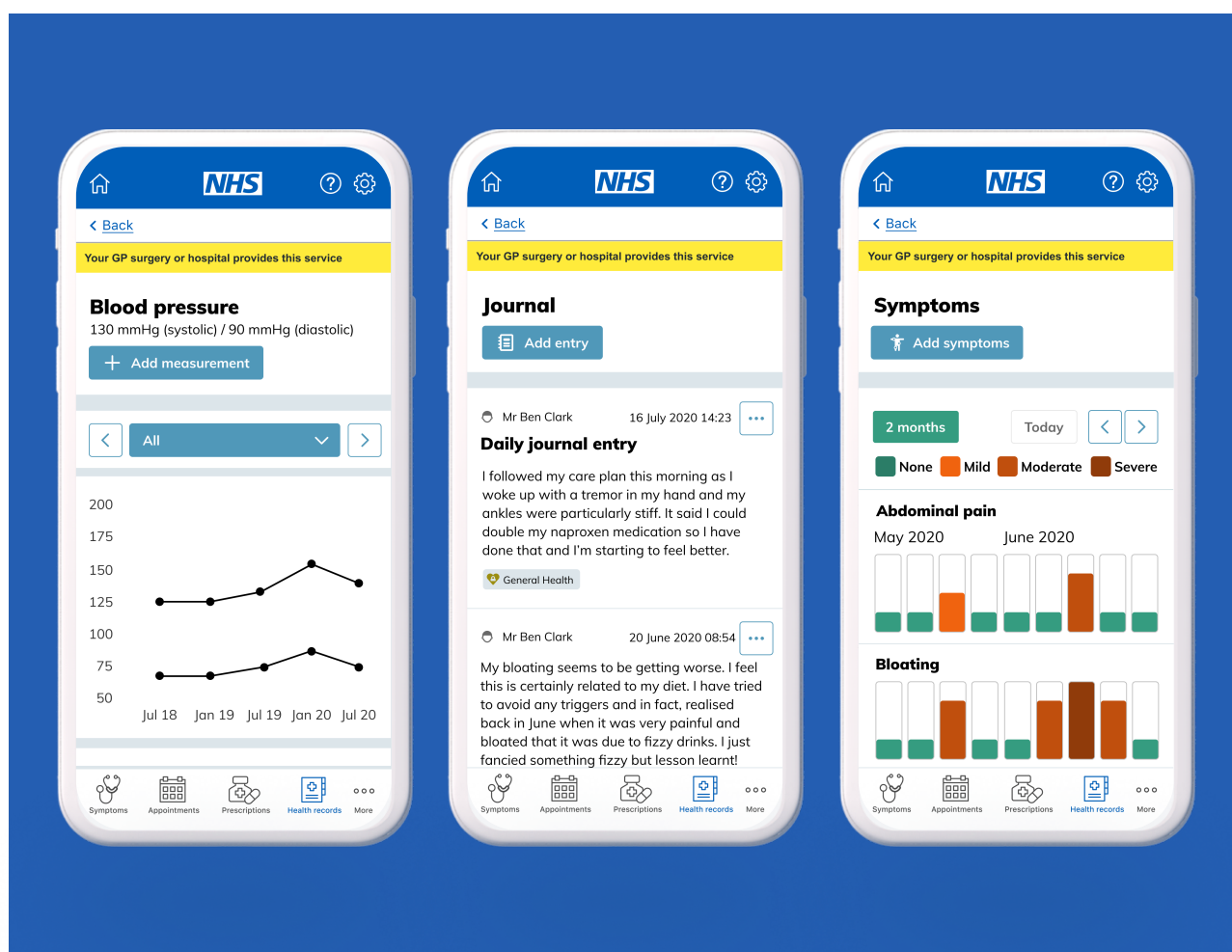
PKB has developed an API in partnership with Connected Nottinghamshire that allows a patient's answers to be stored in electronic health records. This also allows patient-generated data from questionnaires to be extracted and used across other systems in the ICS. This API has the potential to streamline care according to service and patient needs. It can also be used to facilitate multiple health and care initiatives, including (but not limited to):

- ♥ research
- ♥ pre-appointment checks
- ♥ post-operative assessments
- ♥ patient-initiated follow-ups and triage
- ♥ PROMS and PREMS.

[Talk to us about using this API in your hospital >](#)

NHS App update 'Track your health'

Users of PKB can now access their hospital test results, record symptoms and add to their new health journal inside the NHS App. The NHS App's 'Track your health' feature was released in October 2020 and offers meaningful primary and secondary care data for the first time behind the NHS front door via PKB.



For more information about the PKB-NHS App solution, email enquires@patientsknowbest.com or visit www.patientsknowbest.com.