Commentary

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The NHS App should focus on inequalities to improve population health

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The 10-Year Health Plan for England aspires to create 'the most digitally accessible health system in the world by 2028' with the NHS App positioned as the primary gateway to the NHS.[1] This is an ambitious and commendable goal, and it is encouraging to see health inequalities given prominence in the plan's executive summary. However, extensive evidence, including evaluations of the NHS App specifically, shows significant disparities in who is able and likely to use digital health technologies.[2] Without addressing these broader social and structural determinants of digital access and use, an overreliance on the NHS App risks deepening existing health inequalities and failing to improve population health for all.

The NHS App was created to serve as a 'digital front door' to England's National Health Service.[3] Its primary aims were to enhance access to primary care, improve patient experience, reduce workload in GP practices, and encourage self-care. As of July 2024, 34 million people have registered with the NHS App (although the number of active users will be less than this) and the 10-year Health Plan intends to use this to improve population health.[4] There is a lengthy list of functions for the NHS App to perform, including patients being able to book, move and cancel appointments, which is predicted to save money for the NHS as a whole, view medical records and receive messages on the NHS App rather than by SMS to reduce operational costs. These have evolved over time (Table 1) and together, these changes aim to help 'move the NHS from analogue to digital', give patients more choice and control over their health, improve healthcare efficiency, and save money for taxpayers.

Our evaluation of the NHS App concluded that overall, adoption of the NHS App has been high: growing rapidly initially thanks to the COVID Pass feature but continuing to grow consistently since then. This marks it out as a unique national capability. However, our evaluation also showed cause for concern around inequalities in access to and use of the NHS App.

Current and future inequalities in health outcomes

The Health Plan acknowledges some of the severe issues facing health in the United Kingdom but says less about whether an increased reliance on technology will exacerbate or improve these. Current health inequalities are stark, for example, the number of child deaths was higher in 2024 than in 2020, with substantially larger differences between ethnic groups.[5] We know that there is a Digital Divide between those who can, and those who cannot benefit from digital services, leading to some to refer to digital inclusion as a new social determinant of health.[6,7] Approximately 7.9 million adults in the United Kingdom lack basic digital skills while 1.6 million do not have a smartphone, tablet or laptop, with affordability of digital inclusion a key driver of both of these.[8,9]

Research specifically on the NHS App reinforces a picture of a digital divide in its uptake and use. Our examination study of data on NHS App use from March 2020 to June 2022 found a strong deprivation gradient and influences of patient age, ethnicity and healthcare needs.[10] Linking data on App use to GP practice population data suggests a picture that even where use of the NHS App is high, big differences across groups remain. The study found 35% lower login rates and 40% lower rates of appointment booking for practices in the most deprived fifth of the country versus the least deprived. Comparing data from the final 3 months of 2021 to the same period in 2024 reveals a narrowing of inequalities by deprivation, with login rates increasing the most in the most deprived areas. Nonetheless, inequalities persist with a mean rate of 834.5 per 1000 in the least deprived practices versus a rate of 611.7 per 1000

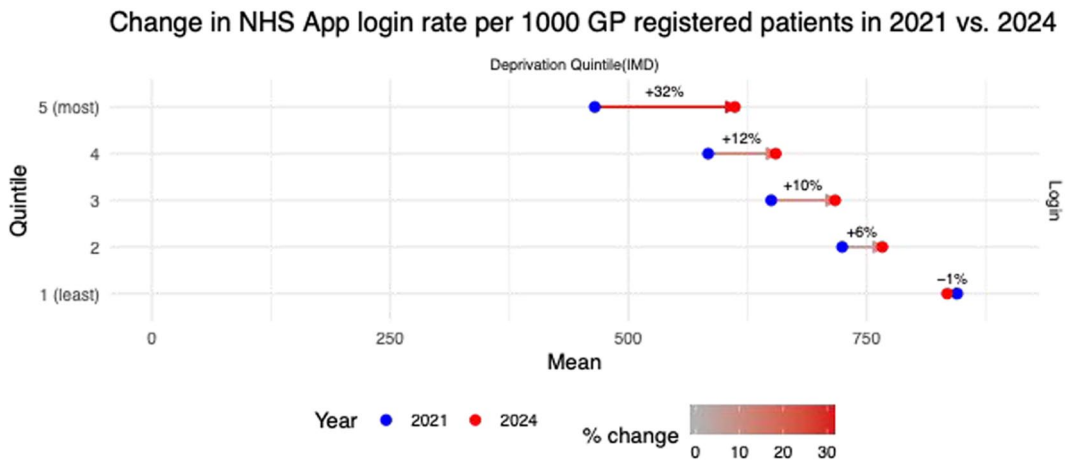
Table 1. Timeline of NHS App development and rollout.

Date	Milestone	Description
September 2017	Initial policy direction set	Health Secretary Jeremy Hunt outlines eight challenges for developing a patient-facing NHS App, emphasising integration with services like appointment booking and records access. This aligns with early digital transformation goals.
Late 2018	Development begins and early testing	NHS Digital and NHS England start building the app. Private beta testing launches with over 3000 patients across 30 GP practices. The app is prepared for public release, with plans for iOS, Android and web versions.
31 December 2018	App availability in app stores	The NHS App is released on Apple App Store and Google Play. Public rollout begins incrementally by STP/CCG areas, with full national usability targeted for mid-2019. Initial features include basic login via NHS credentials.
January 2019	Public rollout initiates	Official public rollout starts after beta feedback. GP practices begin integrating systems (e.g. EMIS, SystmOne) for features like appointment booking and repeat prescriptions. The app is positioned as a tool for patient empowerment under the NHS Long-Term Plan.
July 2019	National rollout and core features launch	Full national rollout to all eligible patients in England. Core functions go live: GP appointment booking/cancellation, repeat prescription ordering and access to GP records (where practices enable it). Aims to reduce GP workload and promote self-care.
2020	COVID-19 adaptations and expansions	App features expand for pandemic response: Integration with vaccination booking and records (from late 2020). Access to care plans for long-term conditions added. Usage surges, with nearly 5 million monthly users by June 2021. Note: This is distinct from the separate NHS COVID-19 contact-tracing app (launched September 2020).
May 2021	COVID Pass and vaccination features	NHS COVID Pass introduced for displaying vaccination status (initially for travel, later for venues). Over 1.2 million repeat prescriptions and 100,000 GP appointments managed via the app in May–June 2021. Proxy access (managing services for others, e.g. children) begins development.
2022	Broader integrations and evaluations	Features like organ donation registration, NHS 111 access and end-of-life preferences added. National evaluations (e.g. NIHR-funded) highlight inequalities in uptake. Roadmap published as part of DHSC's digital health plan, focusing on APIs for better GP connectivity and personalised services.
December 2023	User growth milestone	33.6 million registrations achieved. All GPs in England mandated to provide health record access via the app. Enhancements include video consultations and links to e-Referral Service for hospital bookings.
July 2024	Continued expansion	Registrations surpass 34 million. Features like prescription tracking extended to more pharmacies; appointment calendar integration added. Focus on usability improvements, including multilingual support and accessibility fixes.
July 2025	Alignment with 10-Year Health Plan	10-Year Health Plan published (3 July), positioning the NHS App as central to digital ambitions (e.g. 'most digitally accessible health system by 2028'). Roadmap updated (26 July) to include health record graphs, messaging inbox enhancements (e.g. filters, flagging) and proxy access expansions.
Ongoing (as of September 2025)	Current developments and future plans	Working on: GP Connect API adoption for richer records, expanded messaging (e.g. community health alerts), navigation personalisation and proxy access to secondary care. Next phases: Inbox management tools, prescription notifications, compatibility with iOS 19/Android 16 and integration with new services like vaccinations hub. Evaluations continue to address digital divides, with aims for equitable rollout by 2028.

in the most deprived practices (Figure 1). This may suggest that widening access and maturation of the technology may reduce inequalities in adoption and use.

Longitudinal qualitative data demonstrated limited strategic emphasis on inequalities (at the time of data collection from June 2021 to April 2023).[11] Few initiatives specifically aimed to support access to the NHS App (e.g. via patient champions), and these often relied on leadership and resources at GP practice level which were not always evenly distributed. We also found that patients wanted information presented in a more accessible, patient-facing way and struggled to understand how to access the App, request support or even what the NHS App was and what it provided.[11]

Figure 1. Mean change in NHS App login rate per 1000 patients, October–December 2021 versus October–December 2024 by index of multiple deprivation group.



Inequalities also emerged because of variable alignment of the NHS App with other parts of GP practice-level workflows such as online appointment booking (which was not available everywhere) and processes related to providing records access. Such contingencies created a 'postcode' effect as some features varied locally and over time. Population groups that would benefit from a relational approach to care (e.g. vulnerable and underserved groups) may find it difficult to reach intended health outcomes through transactional use of the app, and the argument that digital services enable time for in-person care for those who need it remains to be proven.

What do we know from other digital interventions?

These findings on the NHS App fit within a wider literature. Previous attempts to harness digital tools to give consumers 'greater choice and control' over their health and healthcare have shown only limited success, with persistence of inequalities in access and use.[12] The adoption of 'patient portals' such as these is often lower among ethnic minorities,[13] the elderly and those of lower socioeconomic status.[14–16] More broadly, reviews of eHealth report mixed effects on quality, safety and cost-effectiveness, and caution against 'deploy and benefits will follow' logic without attention to context, co-design and equity from the outset.[17,18]

Suggested improvements

The government has shown commitment to expanding the role of digital services. What we know from other interventions does suggest ways to best use the NHS App to stand the best chance of improving inequalities in health (see Table 2).

What can we do to reduce inequalities in access and use of the NHS App?

Policy decisions will be vital in ensuring that the extension of the NHS App does not exacerbate or create new inequalities. Proactive work can help to support people to use technology more broadly, including in healthcare. This could include increased digital skills training as well as measures to reduce the costs of accessing the internet for those who need it. Despite the enthusiasm behind the push to digitise more health services, policymakers will need to remember the need to have multiple channels for people to access health services.

What can we do to ensure that use of the NHS App does not exacerbate existing inequalities or create new ones?

Health professionals are well-positioned to provide specific support for digital and other forms of health inclusion, if given the capacity and support to undertake this work. This includes providing support in healthcare settings as well as ensuring that patients who prefer or need traditional methods (e.g. phone or in-person booking) can still access services. There will be significant work in integrating different elements of the NHS App with the rest of the NHS systems.

Table 2. Barriers to NHS App use and proposed solutions.

Barrier	Description	Proposed solutions	Target audience
Low digital literacy	Approximately 7.9 million UK adults lack basic digital skills, limiting their ability to navigate the NHS App's interface or understand its functions (e.g. accessing medical records).	– Offer free, patient-focused digital skills training through libraries, community centres or GP practices. – Develop in-app tutorials with simple, jargon-free instructions and multilingual options.	Patients, Providers, Policymakers
Limited device access	1.6 million UK adults lack a smartphone, tablet or laptop, and affordability issues exclude low-income groups from reliable internet access.	– Subsidise device costs or internet access for low-income households through government programmes or telecom partnerships. – Ensure non-digital access channels (e.g. phone, in-person bookings) remain fully supported.	Patients, Policymakers
Lack of trust in technology	Concerns about data privacy and security deter patients, especially ethnic minorities and vulnerable groups, from using the app.	– Implement transparent data protection policies and communicate them via community outreach and NHS campaigns. – Partner with trusted local organisations to build confidence through peer-led education.	Patients, Policymakers
Complex app interface	Coded medical records and inconsistent features (e.g. variable appointment booking) confuse users and reduce accessibility.	– Ensure simple design with patient-friendly language and clear explanations of medical terms. – Standardise features across regions to eliminate 'postcode' disparities.	Patients, Providers
Workload and integration challenges	NHS providers face administrative burdens and interoperability issues with systems like EMIS or SystmOne, hindering app adoption.	– Fund 'digital champion' roles in GP practices to support patients and reduce staff workload. – Invest in standardised APIs to ensure seamless integration with existing NHS systems.	Providers, Policymakers
Low awareness of app functions	Many patients are unaware of the NHS App's capabilities or how to access support, particularly in underserved communities.	– Targeted awareness campaigns via community groups, social media, and GP practices. – Culturally sensitive materials in multiple languages to reach diverse populations.	Patients, Providers, Policymakers

Professionals are also well placed to recognise issues and advocate for these improved systems. For example, NHS England (or the Department of Health and Social Care) could provide funding for GP practices to designate 'digital champions': staff trained to help patients with App set-up during appointments or offer drop-in sessions for support.

Well-resourced involvement with community groups can help ensure digital tools meet the needs of those most at risk of exclusion. Community organisations can provide a culturally sensitive and trusted 'front door' for digital health support, helping people use NHS digital tools and reducing routine digital queries that might otherwise fall to GP staff.[19] Evidence from initiatives such as Camden and Islington's digital inclusion service and 'Digital Health Hubs' shows that community-based support can improve engagement and reduce NHS administrative tasks and workload, potentially complementing NHS care by alleviating some pressures on frontline teams.[19–21] Partnerships with voluntary and community groups represent an important opportunity to complement formal healthcare provision. To realise these benefits, policy must include investment in sustainable community partnerships and targeted support for disadvantaged groups.

The importance of monitoring and research

Further monitoring and research will be important to support equity and inclusion, and this information will be needed to measure inequalities, understand them and devise ways to intervene on them. As usage patterns evolve, tracking changes in use will allow the App to adapt to shifting needs. Targeted research could include focusing on digital health literacy and employing methods to highlight the needs of those often left out of research processes.[22] Research will be needed on the

barriers to healthcare access among some groups as well as what providers need to support an increased use of digital tools. Being clear about barriers to access for marginalised groups will enable the use of strategies to ensure equitable outcomes.

Conclusion

Although the broad adoption of the NHS App has been successful, it risks widening health disparities unless the health service or community groups can support patients to access and use the App. There must be clear value from using the NHS App and its features for patients, alongside equitable opportunities for access and use, and targeted support for disadvantaged groups. Future research should examine the needs of disadvantaged groups in accessing primary care, including not only via the NHS App but also the requirements of GP providers with differing digital readiness in supporting digital services.

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