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Incorporating *The Journal of Pharmacy Management* and *The Journal of Medicines Optimisation*

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Please contact me with ideas at:

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Editorial

It has been quite a month for the NHS, with the awaited publication of the 10 Year Plan, setting out the government's vision for a healthcare service that takes full advantage of the new technologies that have swiftly become a part of daily life.

In this edition of the Journal, we start with an eye firmly on the future and a brief overview of the Plan itself, with a focus on what it has in store for pharmacy. Continuing this theme, Benedict Brown and Joel Capener from the University of Leeds offer an insightful and timely piece on the educational requirements for pharmacy as we embrace AI and technological innovations. We also have an article by Danny Bartlett, founder of PCCE Ltd, who explains why leadership in pharmacy is essential to the delivery of reforms.

In our clinical section, Kate Bunyan discusses digital home healthy heart screening, and Michael Wilcox, Elizabeth Manton, Aleena Mathew and Zoë Butchers report on a quality improvement project to improve communication about medication at discharge.

And finally, to help us accommodate an incredibly busy and challenging time, healthcare leadership consultant Rachael Lemon provides some hands-on insights and advice on coping with change.

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The choice for the NHS is stark: reform or die

PM Healthcare Journal's editor summarises the new plan, with a focus on what it promises for pharmacy

After some months of waiting, the 10 Year Plan has been published, setting out how the government will resuscitate a service which it itself describes as being on its deathbed. (Fit for the future: 10 Year Health Plan for England, July 2025.)

"Yet again, the future is not what it used to be. When describing NHS reforms, it's tempting to slip into rumination, especially if you've lived through a few of them before. 'Here we go again', 'Haven't I read this one before?', or, my personal favourite, 'Why don't they just bring back strategic health authorities and get it over with?'. All fair criticisms perhaps, but what's a new government to do with the NHS other than try to reimagine it?"

It was an odd week for the plan to be published, two days after the eye-wateringly awkward debate on the welfare bill which dominated the news agenda – a bad day to bury good news. But it's here now and sets out to create a new and improved NHS that in some parts sounds very familiar but also seeks to capture innovations in technology that the NHS is very much in need of adopting.

What are the highlights?

Following Lord Darzi's earlier recommendations, the plan will focus on three areas (or 'radical shifts' as it calls them):

- Hospital to community
- Analogue to digital
- Sickness to prevention

These are, of course, not new ideas, and anyone expecting to see a root and branch restructuring of the 1948 model will probably be disappointed. However, the plan does envisage some novel ways of achieving its big three.

What are the highlights?

To get services out of 'siloed and detached' hospitals, the plan proposes the creation of a Neighbourhood Health Service.

This will be:

- As local as it can be
- Digital by default
- In a patient's home if possible
- In a neighbourhood health centre when needed
- In a hospital if necessary

How it will be done:

- Less money for hospitals
- Training more GPs
- A care plan for 95% of people with complex needs
- Doubling the number of people offered a personal health budget

- A new and improved version of the NHS App
- Establishing a neighbourhood health centre in every community – 'a one stop shop for patient care'
- Increase the role of community pharmacy in the management of long-term conditions
- Delivering more urgent care in the community, in people's homes or through neighbourhood health centres, to 'end hospital outpatients as we know it'
- Hospitals to prioritise the safe deployment of AI and to harness new technology

From the plan, it seems as if neighbourhood health centres will not necessarily be new-build alternatives to current primary care services but will be modelled on expanded GP practices or other primary care providers. It's possible to see this as a way forward for existing primary care networks.

Analogue to digital

It was this part of the plan that seemed of most interest to the media – the idea that AI and apps would be the solution to the NHS's many ills.

The plan promises to 'take the NHS from the 20th century technological laggard it is today, to the 21st century leader it has the potential to be'. Patients will have a 'doctor in their pocket' in the form of an enhanced NHS App (perhaps not the most reassuring metaphor).

Some examples of how it will be done:

- By 2028, the app will be a 'full front door' to the entire NHS and will include:
  - Advice for non-urgent care
  - Choosing a preferred provider
  - Booking directly into tests through My Specialist
  - Holding consultations through the app with My Consult
  - Managing medicines through My Medicines
  - Booking vaccines through My Vaccines
  - Managing long-term conditions through My Care
  - Uploading health data through My Health
  - Getting extra support through My Companion
  - Managing children's healthcare through My Children

It's noticeable how often the word 'My' appears in

the list of innovations for the NHS App. How the My will be achieved is likely to be a combined effort – NHS and private sector developers working together to engineer them.

From sickness to prevention

Prevention remains a central focus, with the plan proposing 'harnessing a huge cross-societal energy on prevention' and 'launch a moonshot to end the obesity epidemic' (which I think means encouraging people to be healthier in their habits).

Prevention will include:

- Restrictions on junk food advertising targeted at children and the reform of the soft drinks industry levy
- The increased use of weight loss medication
- An increased uptake of human papillomavirus (HPV) vaccination among young people
- The creation of a new genomics population health service

Changing the operating model

Structural reforms – already announced – are expected to deliver savings and improve efficiency. NHS England will go, its function absorbed into the Department of Health and Social Care (DHSC) with an expected reduction in central headcount by 50%.

> **"ICBs will become the strategic commissioners of local healthcare services, working more closely with local authorities and addressing underperformance in areas with the worst health outcomes."**

Interestingly, the plan proposes the reinvention of NHS foundation trusts (a model introduced with limited success in 1999). The idea remains the same – they will have the freedom to retain surpluses, reinvest them and borrow for capital investment. Highest performing foundations trusts will be able to hold the whole health budget for a defined local population as an 'integrated health organisation'.

The NHS workforce

In an effort to make the NHS 'not only the country's biggest employer but its best', the plan will:

- Provide all NHS staff with personalised career coaching and development plans
- Make AI every nurse and doctor's 'trusted assistant'
- Develop a new set of staff standards for modern employment
- Reduce sickness rates
- Give leaders and managers new freedoms
- Develop advanced practice models for nurses and other professionals
- Reduce international recruitment of clinical staff to less than 10% by 2035

Using innovation to drive reform

The plan identifies five transformative technologies to bring about innovation:

- Data
- AI
- Genomics
- Wearable devices
- Robotics

These are expected to personalise care, improve outcomes, increase productivity, boost economic growth and make the NHS the 'most AI-enabled health system in the world'.

What does the plan say about pharmacy and medicines?

Pharmacy is an important part of the delivery of the new plan. Its main commitments are summarised below.

Community pharmacy

Community pharmacy will transition from being focused largely on dispensing to becoming integral to the Neighbourhood Health Service, bringing 'health to the heart of the high street'.

As community pharmacists increasingly become independent prescribers, they will expand their role in the management of long-term conditions, complex medication regimes, the treatment of obesity, high blood pressure and high cholesterol. There will also be a greater role for community pharmacy in prevention, vaccine delivery and screening.

The service will be securely joined up to the Single Patient Record, something it has wanted for a very long time. There will also be an expanded role in improving healthcare for women, for example plans to make emergency hormonal contraception freely available from community pharmacists by the end of this year and, from 2026, to help achieve the elimination of cervical cancer (through the human papillomavirus vaccination, administered at the community pharmacy).

Formularies

The plan describes the current formulary system, with each local area deciding which drugs to make available, as needlessly complicated and bureaucratic.

"To reduce local variation there will be a move to a Single National Formulary (SNF) for medicines within the next two years. A formulary oversight board will be created, responsible for sequencing products included in the formulary, based on clinical and cost effectiveness as supported by NICE. Local prescribers will be 'encouraged' to use products ranked highly in the SNF but will retain clinical autonomy if they prescribe in line with NICE guidance."

Welcome to the future.

Making the Left Shift to Primary Care a Reality: Why Pharmacist Leadership is Key to Delivering on the Darzi Review

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Introduction: A Renewed Commitment to Transformation

In 2022, Professor Lord Ara Darzi led an independent investigation into the state of the NHS in England, commissioned by the Times Health Commission. The final report, *Health and Prosperity: Commission on the NHS* (Darzi, 2023), issued a stark warning: unless the NHS embraces a major shift in delivery models and leadership, it will continue to buckle under unsustainable demand, workforce burnout, and inequitable access.

A central theme of the report was the urgent need to shift care away from hospitals and into communities. This 'left-shift' in care emphasises prevention, early intervention, and a greater role for integrated neighbourhood services (Darzi, 2023). Pharmacists, with their increasing scope of clinical practice, must be central to this new era.

With a presence in every neighbourhood and growing clinical authority, pharmacists are ideally placed to lead this transformation at scale. This article argues that pharmacists in leadership roles are critical to making the left-shift a reality. Drawing on NHS England policy, educational reform, and local innovations such as PCN-based frameworks, we explore how pharmacists can help reimagine primary care and deliver on Darzi's vision of a stronger, more equitable NHS.

The Left-Shift and the NHS 10-Year Plan

The upcoming NHS 10-Year Plan promises a radical overhaul in how care is delivered, with primary and community services at its core. In line with the Darzi Review's call for structural reform and leadership renewal, the Plan emphasises:

- Integration at place and neighbourhood level
- A decisive shift towards prevention and early management
- Expanding access through multidisciplinary teams (NHS England, 2023a)

> "Pharmacists are ideally positioned to support these ambitions. Yet, their contribution is often limited by a lack of structured progression, leadership visibility, and cultural expectations that confine them to medicines optimisation alone."

To fulfil the 10-Year Plan's promise, the NHS must position pharmacists as clinical generalists as population health issues and multimorbidity increases, system leaders, and catalysts for place-based transformation – not only as clinical generalists but as leaders of neighbourhood care, strategic change, and multidisciplinary collaboration.

Pharmacists as System Leaders, Not Just Support Roles

Pharmacists have long been trusted experts in medicines use. But their evolving role now extends far beyond dispensing and optimisation. With the growth of independent prescribing, structured clinical pathways, and leadership training,

pharmacists are stepping into more holistic, patient-facing, and strategic roles.

The NHS England document *A Vision for Pharmacy Professional Practice* (2023b) outlines this transformation clearly. It promotes early exposure to prescribing, enhanced generalist skills, and structured professional development from foundation to advanced level. The plan to make all newly qualified pharmacists independent prescribers by 2026 is a bold signal of intent (General Pharmaceutical Council, 2021).

By enabling pharmacists to:

- Manage chronic disease clinics
- Supervise multi-professional teams
- Lead service transformation projects
- Act as decision-makers in multidisciplinary settings the NHS can respond to demand with sustainable, locally owned solutions that are clinically led and prevention-focused.

Getting Pharmacists Prescribing: Using the Prescribing Expertise We Have Within Medicines Optimisation Teams and Thinking Differently

With many ICB's reducing in size looking at the latest ICB blueprint, and the likelihood that this will be felt within Medicines Optimisation (MO) teams – I see an opportunity. We have vast swathes of pharmacists and pharmacy technicians that have access to GP Practice clinical systems and have existing relationships with practices. Many of these pharmacists with ICB contracts are independent prescribers but don't use their qualification.

"Why, amid rising multimorbidity and chronic disease, are these skills so underused? If you had a band 8b or 8c pharmacist in a hospital setting would they not be the clinical leader for that condition or department e.g. cardiology?"

I feel that with the shift into integrated neighbourhood teams and the huge pressures within general practice, we need to think differently on how we deploy and where best to employ these MO teams. Could they be employed via providers within neighbourhoods? This would encourage every pharmacist to proactively engage with their allocated practices to identify what the priority population needs are and run weekly remote or in person clinics one or two days a week alongside their other MO priorities. The benefits are clear in my mind and would achieve:

- Getting prescribers prescribing
- Increase beneficial relationships between ICB's and PCN/Practices rather than reinforcing a top-down, compliance-focused relationship
- Enable the MO teams to become more embedded to a population-led left shift model of care
- Increase patient satisfaction and reduce wait times
- Increase the potential for Foundation Training Placements at the ICB with more access to potential DPP's and prescribing environments
- This would 'normalise pharmacist-led clinics' as part of core general practice delivery

Integrated Neighbourhood Teams: A Natural Home for Pharmacy Leadership

Neighbourhood teams – covering populations of 30,000 to 50,000 – are the building blocks of population health. The NHS Long Term Plan and Integrated Care System (ICS) guidance emphasise personalised, preventative care closer to home (NHS England, 2019).

Pharmacists embedded in these teams could:

- Run structured clinics for hypertension, diabetes, asthma, contraception, and HRT
- Lead polypharmacy and deprescribing programmes in an increasingly frail population
- Analyse prescribing and health data to target inequalities at a local level
- Train peers and mentor pharmacy trainees
- Co-design care pathways in collaboration with GPs and other professionals

Community pharmacy also has a significant role to play. With the Pharmacy First service now enabling minor illness management directly from the high street, there's an exciting opportunity to broaden this offer to include structured support for chronic disease management.

This is not a hypothetical future but a current imperative: the prevalence of chronic conditions like cardiovascular disease, asthma, and type 2 diabetes is steadily rising, placing an ever-increasing burden on general practice and secondary care. Population health studies show that cardiovascular disease alone accounts for a quarter of all deaths in the UK and is responsible for considerable healthcare utilisation (Bhatnagar et al., 2015). Likewise, asthma is responsible for over 60,000 emergency hospital admissions annually in England, many of which could be avoided with proactive community-based care (NRAD, 2014).

Chronic conditions are also ideally suited to structured intervention models. Unlike acute presentations, which often require diagnostics and time-sensitive triage, conditions like hypertension or asthma benefit from protocolised reviews, medicines titration, and ongoing lifestyle support – all of which community pharmacists are well equipped to provide. If pharmacists in community settings are granted full read/write access to patient records and can work in seamless integration with general practice teams, they can provide continuity, safety, and efficiency.

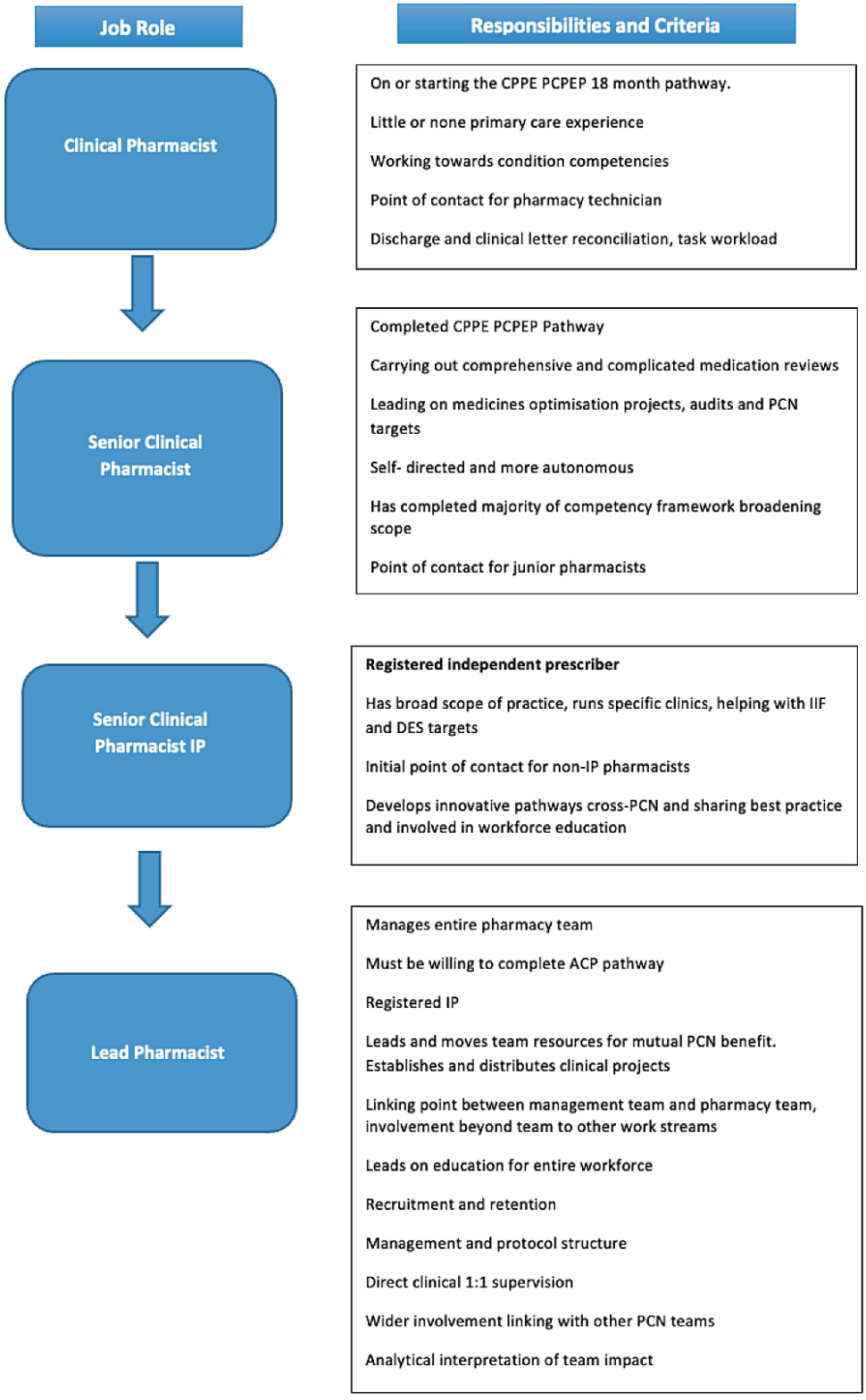
Imagine a model where a patient with asthma walks into their local pharmacy, receives a peak flow measurement, inhaler technique coaching, a prescription adjustment, and has this information automatically entered into their primary care record. This would not only improve patient experience and outcomes but help alleviate demand on overstretched general practice teams.

Here's what a transformed model could look like in practice:

A patient with hypertension and high cholesterol visits their community pharmacy for a routine blood pressure check. The pharmacist identifies elevated readings, reviews recent adherence, and initiates or adjusts antihypertensive medication under a prescribing protocol. They discuss lifestyle interventions and start statin therapy based on a QRISK score documented in the shared clinical record. This intervention, fully integrated with the patient's GP system, means no delays, no missed follow-up, and fewer

Developed by Danny Bartlett August 2022

Clinical Pharmacist Pathway



An example PCN Development Pathway, Bartlett 2022.

preventable cardiovascular events. It transforms what could be a silent, progressive condition into a managed, monitored care pathway rooted in the community. This needs to be wider than pathfinder sites and should be the norm.

Empowering community pharmacy in this way could significantly extend the reach of integrated neighbourhood teams, enable targeted population health interventions, and build trust through high-quality, accessible care close to home.

> **"This neighbourhood-facing role echoes Darzi's call for care to be shaped by 'local innovation, leadership, and accountability' (Darzi, 2023)."**

However, for pharmacists to lead in this space, they need clearly mapped pathways, clinical supervision, and organisational support and fair and appropriate funding.

Competency, Confidence and the Bartlett Framework

One local innovation helping to bridge this gap is the PCN-based framework developed by myself, in 2022. This tiered model charts a progression from junior clinical pharmacist to senior, prescribing, and leadership roles within a PCN structure.

It includes:

- Competency checklists for clinical areas (e.g., asthma, depression, hypertension)
- Prescribing readiness indicators
- Tutorials and peer-supervision sessions
- Educational and development progress tracking
- Rota structures to support autonomy and continuity

Pharmacists using this framework move from task-based roles (e.g., reconciling discharge summaries) to independently managing long-term conditions and leading multidisciplinary projects. As prescribing confidence increases, so does their scope – from medication reviews to condition-specific clinics. Supervision is spiralled and diversified amongst the team – if one member leaves the team, there is still capacity to supervise, develop and maintain the team. Frameworks like Bartlett's not only support individual pharmacists to grow but enable ICSs to scale capability consistently across neighbourhoods.

Leadership in this model is not reserved for job titles but is based on competence, visibility, and accountability. This echoes Darzi's focus on clinicians as 'change-makers' (Darzi, 2023).

The Impact of Prescribing: More than Just Writing Scripts

The rollout of prescribing from the foundation year onwards will be transformative. Prescribing enables pharmacists to manage full care episodes, reducing dependency on GPs and enhancing continuity for patients.

Pharmacists as prescribers to name a few examples can:

- Initiate and adjust therapy in hypertension, lipid management
- Support women's health through HRT and contraception prescribing
- Run respiratory clinics
- Actively engage in shared decision-making
- Coordinate with diagnostics and referrals

As Darzi (2023) noted, the NHS must 'make full use of all the talents within the system'. Prescribing pharmacists are a clear example of untapped capacity.

But clinical authority must be matched with leadership support. That means supervision, time for reflection, and access to networks and forums where pharmacists can influence care design. With competency in new areas, pharmacists must be poised to become more 'generalists' and learn what gaps they have where, which is why a useful tool within every team is an individualised competency mapping document.

Below is a low-tech example of this but great in its simplicity of being able to enable reflection of the individual of what learning needs to occur where. No clinician is expected to be fully competent

across every condition or domain but perhaps there are certain aspects they can undertake e.g. They may know how to manage established and diagnosed hypertension but may need some supervision when first diagnosing the condition before adding that patient cohort to clinics. This tracker below enables a tailored learning plan to be created for each pharmacist increasing their impact within each organisation and reducing handoffs and the inefficiencies of multi-clinician pathways.

The Human Case: Stories from the Frontline

What does leadership look like in practice? Often, it's not about boardrooms or job titles but about courage, consistency, and compassion. Pharmacist leadership frequently shows up in the details: in a well-run clinic, a gently corrected prescription, or a moment of patient empowerment.

In one PCN, a lead prescribing pharmacist led a lipid optimisation project with a 9,000 patient practice. He created a standardised protocol across three practices, trained his multiprofessional colleagues, and proactively engaged patients with tailored discussions about cardiovascular risk. Statin adherence rose by 45%, and over 630 high-risk patients were prescribed statins and brought into safe ranges for cholesterol for the first time. His team didn't just change prescribing patterns – his team changed lives.

Elsewhere, a pharmacist took the initiative to support mental health pathway redesign. Working collaboratively with GPs, social prescribers and IAPT services, he built a structured antidepressant review protocol. This included safeguarding flags, suicide risk guidance, and patient follow-up schedules. As a result, the model became not only safer and more efficient but far more patient-centred. Feedback showed patients felt better informed, experienced fewer side effects, and were referred more quickly when additional support was needed.

In a larger practice, a pharmacist partnered with care coordinators and frailty nurses to create a care home-visit medicines optimisation programme.

					Conditon competency tracker										
Version 1.2 Danny Bartlett May 2023	Medication Monitoring	SystemONE	Repeat Reauthorisation	Medication review basics	Interpretting blood results and blood forms	Contraception	NOAC	AF	Asthma	COPD	Hypertension	Diabetes	HRT	Depression	
Senior Clinical Pharmacist IP															Has read SOP and is competent in carrying out diagnosis, reviews and titrations, knows escalation policy and has completed competency protocol signed by lead pharmacist and each practice prescribing lead
Senior Clinical Pharmacist IP															
Senior Clinical Pharmacist															
Clinical Pharmacist															Some competency but some learning needs as explained
Clinical Pharmacist															No competency and is yet to be signed off at all, with reasons detailed
Clinical Pharmacist															
Senior Pharmacy Technician															
Pharmacy Technician															Is a prescribing pharmacist

An example Competency Mapping Tool, Bartlett 2022.

Focusing on polypharmacy in patients over 80, she helped reduce unnecessary medications, identify issues such as swallowing difficulties or confusion, and build bridges between GPs and social care teams. This work reduced avoidable admissions and prompted a broader review of care home support across the area.

"Another pharmacist developed an asthma and COPD review service that linked clinical review with inhaler technique workshops and smoking cessation advice. By bringing together multiple strands of care, this service helped not only improve disease control but boosted patient confidence and independence."

These are examples of 'quiet leadership' – rooted in clinical excellence, data-driven improvement, and a patient-first mindset. They are not headline-grabbing but they are the foundation of safer, smarter, more compassionate care. Crucially, they show that pharmacists don't just deliver services – they design, improve, and lead them.

Consultant Pharmacists – an opportunity?

Consultant-level posts in primary care remain rare – but their potential is transformative. By working across two or more neighbourhoods and contributing to INT leadership, a Consultant Pharmacist could drive consistency, mentor emerging leaders, and share innovations across practices and PCNs. This could also create a formal route for developing national consultant-level accreditation aligned to primary care models.

Conclusion: Rewriting the NHS Narrative

The Darzi Review challenged us to stop defending outdated models and start building a health service for the future – one that is local, integrated, and led by clinicians who know their communities.

Pharmacists are already embedded in every neighbourhood. With prescribing authority, leadership frameworks, and a clear policy mandate, they are ready and waiting to lead.

Now the system must empower, support and fully utilise this resource. By investing in pharmacist leadership, removing outdated silos, and changing perceptions of the traditional pharmacist stereotype, pharmacy can help the NHS to deliver the left-shift – and create a service that is stronger, fairer, and sustainable for generations to come.

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Navigating the AI Educational Minefield

Benedict Brown is a Lecturer in Pharmacy at the University of Leeds, specialising in digital education and artificial intelligence (AI) use in healthcare. With a PhD in pharmaceutics from the University of Huddersfield, Benedict has transitioned from pharmaceutics to applied educational research. His work focuses on developing digital educational strategies and integrating AI into healthcare education. He is actively involved in creating innovative teaching content for postgraduate students, emphasising the critical appraisal of AI-reported data. Benedict's efforts aim to prepare healthcare professionals to work within increasingly digital healthcare systems, aligning with the NHS's priorities.

Joel Capener is a Teaching Fellow in Business and Management at the University of Leeds, specialising in the economic and organisational impact of technological disruption. His PhD in Innovation from the University of Sheffield provides the foundation for his current research into Artificial Intelligence, examining it as a pivotal force reshaping industry and learning. His work is dedicated to creating innovative pedagogical practices that prepare professionals to be both critical and reflexive in their application of AI technologies.

The AI opportunity

Since 2020 the NHS has committed £113 million to the development of AI healthcare tools. This funding is currently supporting the development of 86 different AI technologies, many of which have direct links to the day-to-day work of pharmacy staff across all sectors. This highlights the fast-moving nature of this sector.

The key question remains do you have the required skills and knowledge to utilise this AI healthcare revolution? This article will summarise the current level of AI literacy within the pharmacy workforce; the range of benefits AI adoption, and explore the educational strategies required for successful integration of AI.

Defining AI

Given the broad functionality and nature of AI, there exists a problem of definitional clarity. Historically, AI has been broadly defined as the mimicry, simulation, or replication of human intelligence.[1] Within AI however, there exists a number of definitional subsets which describe narrower and more specific functions of intelligence and AI processes, such as Machine Learning, Deep Learning, and Large Language Models (LLMs). While all these areas have significance, it is the last of these which has been the most instrumental in pushing AI into the public consciousness, through the well-publicised release of LLMs such as ChatGPT and Microsoft Copilot. Unfortunately, this has resulted in a situation where significant attention has been paid to LLMs, to the point that in many cases conversations about AI are actually more specifically about LLMs, thus ignoring a significant portion of AI activity. Given that AI of all these subsets has been embedded in pharmacy processes (with varying success and utility), long before the development of generative LLM's like ChatGPT, this paper argues that it is necessary to keep a broad picture of the topic in its discussion of AI in Healthcare Education, and thus adopts its historical, and more inclusive, definition.

Current knowledge base

While there is a variance in the perceptions towards the use of AI in the next generation of pharmacists,[1] there is an overwhelmingly positive view of the technology. In a 2023 study of fourth year pharmacy students, 96.2% of respondents held the view that AI could contribute to improving patient care and pharmacy services.[2] Of the reviewed papers that explicitly tackle the perception of AI in healthcare, all reported either a positive perception of AI in a broad sense, or a positive perception of its role in improving patient care.[1,2,3,4] Perceptions of AI are predominantly positive, driven by a practical acknowledgement that AI is going to be impactful in the future.

There are many applications in which pharmacy professionals believe AI will have a significant impact. This includes (but is by no means limited to) the handling of routine tasks,[5] streamlining of dispensing processes,[6] greater predictive capability

in identifying adverse drug interactions,[7] and the advancement of personalised treatment plans via analysis of patient data.[7,8] Given the potential for AI to enhance these diverse areas, it is perhaps unsurprising that pharmacists have an appetite for the further inclusion and expansion of AI-oriented training.[9]

While future pharmacy healthcare professionals are evidently willing to learn more about the application of AI in their field, the literature suggests that there exists a wide spectrum of previous knowledge. Although many have a broadly positive outlook towards AI and its benefits, in self-reported studies a lack of comprehensive knowledge is evident. As is a broader lack of preparedness in applying this to their future roles.[1,4] Similarly, while current and future healthcare professionals alike appear to have a moderate level of general AI knowledge. As demonstrated by Hasan, et al's 2024 study which illustrates that respondents have a reasonable grasp of key AI terminology, (thus suggesting broad understanding of the technology itself). Both groups report significantly less knowledge and confidence regarding its potential applications in the pharmacy space. In addition, several studies have identified that students are unaware of the specific limitations that AI has as a tool, and thus the subsequent impact of those limitations in the pharmacy setting.[10] Therefore, a key theme emerges, that current and future pharmacy healthcare professionals have a reasonable knowledge of general AI, however they lack the required subject specific knowledge to work with technologies as they develop and become integrated into healthcare systems.

This demonstrates a need for greater integration of AI education into pharmacy training. This is supported by studies where this sentiment is expressed explicitly.[9,11] There are also a number of barriers to facilitating this integration. For example, many students may have a greater understanding of AI systems than tutors.[1] This is further compounded by the complex range of topics that are required to achieve even a fundamental understanding of AI use in healthcare,[11] and the rapid development of learning demands.[12,13] This results in an environment where healthcare educators struggle to provide an up-to-date syllabus that is generalisable enough to ensure relevance. This presents a key question, is the current approach to AI education sufficient to meet this rapidly developing field?

AI healthcare gains

Having explored the current knowledge base, we can now identify the areas of developmental need. Areas of developmental need are invariably linked to the desired gains that adoption of AI tools can bring. These can be broadly split into four areas, individual or organisational gains, short-term or long-term gains. The driving force behind the adoption of AI tools within pharmacy is improved efficiency while maintaining or improving patient safety.[14] With that in mind, what changes to practice can adoption of AI tools bring? These could range from the introduction of a clinical facing AI tool that bring changes to clinical practices, or more subtle uses of AI to assist with administrative processes.

"For an individual improved AI literacy, even at the most basic level gives a wider appreciation of the use of AI within healthcare. This would lead to the pharmacy workforce gaining the capability to identify issues that could be addressed using AI, thus creating a loop of problem identification and AI solutions. This is vital to ensure AI tools are focused on everyday issues which the workforce encounters."

At an organisational level, larger gains could be achieved by the introduction of new healthcare specific AI tools. An example of which is DynAIRx, this tool uses large patient datasets and AI powered algorithms to identify which patients may benefit from a pharmacist led medication review. This tool is currently in development, led by the University of Liverpool, in collaboration with the universities of Leeds, Manchester and Glasgow.

While one could argue that a well-designed AI tool will require little foundation knowledge of staff to use in the clinic. In the same way that use of prescribing or dispensing systems such as SystemOne and Columbus, require little to no foundation knowledge to use them effectively. However, AI tools differ in their complexity, requiring a degree of knowledge to use them effectively and importantly responsibly. For example, equality implications on how an AI tool uses patient data to draw conclusions. This makes a degree of foundation knowledge essential for users.

Training needs assessment

Therefore, we are currently in a situation where we know we want to improve fundamental AI skills across our workforce. But how? Is it appropriate for everyone to get the same training? What training should be given? To answer these questions, a comprehensive skills assessment of the current workforce is essential. Assessing the whole workforce's ability in any area is a daunting task, the fast pace of development within AI makes the assessment of AI literacy even more challenging.

A report titled *'Understanding healthcare workers' confidence in AI',* was published in 2022 by the NHS AI lab and Health Education England.[15] This report explores factors influencing healthcare workers' confidence in AI technologies, to inform the development of education and training strategies. This report followed the Topol Review 2019,[16] which highlighted the need to increase the workforce's ability to work with AI.

The NHS Digital Academy has developed a *'Digital Skills Assessment Tool',* this is available to all NHS and Social care staff. The tool aims to establish a staff members digital literacy and guides users to further training resources. This assesses a broad range of digital skills, starting at a basic level then moving towards an intermediate level. NHS England developed *The Digital Capabilities Framework (DCF),* here a range of digital competencies are categorised into four skill levels. Although, these resources have very little AI focus, they are key to quantify the level of basic digital literacy which is the prerequisite to AI skill development.

Health Education England in conjunction with the University of Manchester developed the framework *'Artificial Intelligence (AI) and Digital Healthcare*

Technologies Capability framework', which builds on the digital capabilities' framework. This consists of 6 primary domains consisting of 11 sub-domains and 195 individual capability statements. One of these primary domains is AI, the capabilities are split into four levels depending on job role and thus required digital literacy.

Any assessment of staff AI and/or digital literacy should utilise these frameworks to match current knowledge with the capability statements. Thereby assisting in the identification of knowledge gaps for a targeted educational approach.

Foundational Education

A foundation of AI literacy within the pharmacy workforce would bring a range of short-term gains. For example, the use of generic AI tools to assist in administrative tasks such as writing emails or reports, to more effective patient communications regarding patient use of AI. To realise these benefits a foundation level of knowledge would be all that is required. This type of upskilling would have efficiency benefits for both the individual and organisation. It is neither required nor practical to upskill the whole workforce to an in-depth level of AI literacy. A foundation level of AI knowledge for all healthcare professionals was a key recommendation from the 2019 *Topol* review.[17]

NHS England has a 'Learning Hub', within this the Digital Academy has a catalogue, which provides links to training material across a range of digital topics. Although there is a section which covers AI, the material is limited at best. Of interest, is the course *'AI for Healthcare: Equipping the Workforce for Digital Transformation'* run by Future Learn, in collaboration with NHS England and the University of Manchester. This course is currently not running and has not been for some time; there is no obvious other material in this section which would cover the fundamental aspects of AI.

The Learning Hub also has additional catalogues on AI, namely one titled Artificial Intelligence. This contains a wide range of learning material, covering key issues such as implementation, ethics and managing data. However, there is a distinct lack of standardisation, with a range of organisations contributing learning material. The main issue with these resources is the lack of clear learning objectives and accessibility.

A lack of standardised and quality fundamental AI educational material for NHS staff is a pressing issue.

A rapid development of learning resources for AI fundamentals should be a key priority for educational providers.

Advanced AI education

Advanced AI education must be built upon fundamental AI education. This education should be targeted towards pharmacy staff whose day-to-day roles involve digital systems and AI, particularly those who are responsible for implementing new digital systems. There are a range of advanced training routes available to pharmacists, each requiring resource commitments from the organisation and the individual. The overall aim of advanced education is the generation of future AI leaders, thus achieving the longer-term gains of AI integration.

NHS England offers a *Digital Health Leadership program;* this is a 12-month postgraduate diploma open to all NHS staff with a degree classification of 2.2 and above. Although this program is not specifically targeted towards AI, enrolled staff will gain a wider understanding of digital health and how to apply AI tools in their organisation. Following the *Topol* review in 2019,[17] *Topol Digital Fellowships* were developed. These fund 1-2 working days a week of staff time for training and development of digital skills. By nature, fellowships work in partnership with the NHS organisation to address specific digital skill gaps or implementation of new digital systems.

For those who have an active research role and a sustained track record of digital research the *Turing AI Fellowships* may also be an option. This route is applicable to those who work with or for higher education institutions. Although these are not specifically targeted towards healthcare, many of the current fellows have completed projects in the healthcare sector.

Product-specific training

This training is largely delivered by product providers; these businesses vary significantly in their size and thus capacity to deliver training at scale. As a result, many will require additional support from NHS staff when conducting large scale training across an organisation. For example, when introducing a new AI tool that screens for medication interactions in all inpatients in the secondary care setting. This will require training of all clinical staff in a relatively short period. This will necessitate collaboration between the product provider and education department(s) at the hospital. A key issue outlined in the report *'Developing healthcare workers' confidence in AI'* is the current inability of NHS education and training staff to deliver AI upskilling at scale. This was also highlighted in the Goldacre Review,[18] which stated:

> **"Providing a team of technical specialists with adequate funding to develop, deliver, share, and curate training ... will be essential if training is to be high-quality and up to date"**

In essence the provision of effective product-specific training requires the development of the digital skills of staff who are involved in training and development. Maintaining a close working relationship between these teams and AI product providers will also be key. This will ensure that training is appropriate and builds on the current digital literacy of the workforce.

Discussion

Now the why. Why is digital literacy and more specifically AI literacy important? At the time of writing, the search term 'Digital Pharmacy' on the NHS jobs website brought up 1363 job roles nationally. Clearly this is a rapidly expanding sector, which shows no indication of slowing down. As the NHS moves towards widespread adoption of AI tools the ability to work with AI will no longer be seen as a niche skill for niche roles, therefore every employee at every level will require some degree of AI upskilling.

Looking back at the original question posed: is the current approach to AI education sufficient to meet this rapidly developing field? Simply put, no. There is currently a vast gap between the level of AI education and that required to meet the needs of the rapidly developing AI field. To address this, multiple approaches will be required, these include rapid

expansion of AI education within formal training of healthcare professionals, for example within undergraduate courses. This should be paired with education within workplaces to allow established healthcare professionals to gain these skills. At the very least this should achieve a foundational level of AI knowledge.

This leads on to the role regulators have in standard setting for education and practice. When working with disruptive technologies comprehensive guidance from regulators is key to ensure safety and public trust. Take the GPhC and RPS for example, there has long since been an emphasis on digital skills within training standards, however these make little to no mention of AI specifically. This surely needs to change to generate momentum for AI education. A key barrier to this is the pace of development of new training standards. Although work to update AI training guidance is ongoing, this cannot come soon enough. For a more detailed overview on the policy and regulatory issues see the article *'Addressing the education gap of AI policy into practice: A pharmacy perspective'* - PM Healthcare, Spring 24, issue 08.[19]

The fast-moving nature of this sector requires the rapid development of pharmacy staff at all grades, from undergraduate students to consultant pharmacists. AI education is lagging behind the capability of the technologies. There has never been a more pressing time for the pharmacy sector to invest in building digital and AI skills. As not doing so would risk being left behind in the AI-healthcare revolution.

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Digital Home Healthy Heart Screening: A Pharmacy-Led Approach to Cardiovascular Disease Prevention

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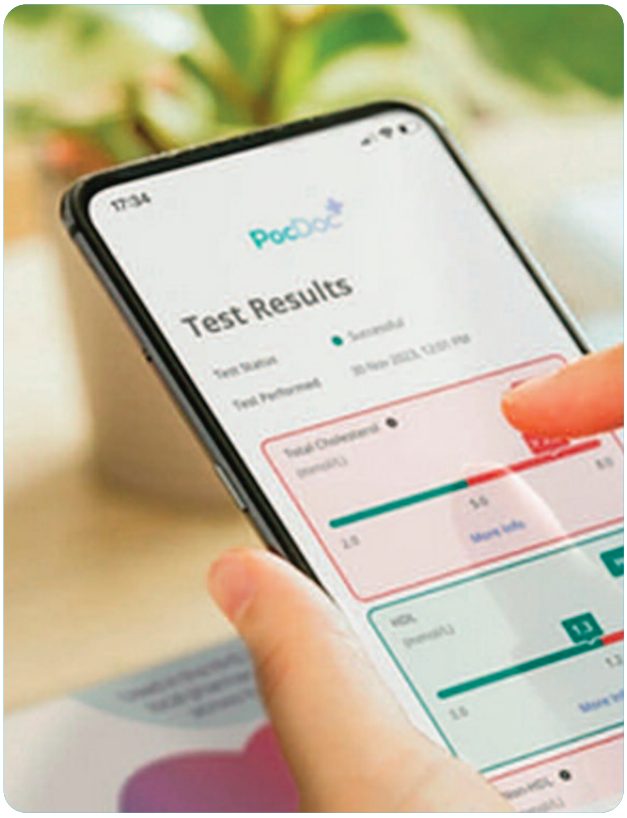
Introduction

Cardiovascular disease (CVD) remains one of the most significant threats to public health in the United Kingdom, accounting for more than a quarter of all deaths each year.[1] Despite decades of progress in treatment and prevention, CVD continues to place a substantial strain on both the NHS and the wider economy, with annual costs estimated at £7.4 billion for the health system and £15.8 billion for the economy as a whole.[2] The now outgoing NHS Long Term Plan (2019) had identified CVD as the single biggest area where lives could be saved over the subsequent decade,[3] and economic modelling suggests that meaningful improvements in prevention could have a positive impact on GDP by 2030.[4]

Early detection and intervention are crucial in reducing the impact of CVD. Many cases are preventable through lifestyle changes and appropriate medical interventions.[5] However, traditional screening programmes such as the NHS Health Check face persistent challenges: limited reach, resource constraints, technological barriers, and persistent health inequalities, particularly for those living in deprived areas or belonging to certain ethnic minorities.[1,3,6]

The government's health mission is now focused on three transformative shifts: moving from treatment to prevention, from hospital to community-based care, and from analogue to digital service delivery.[7]



This article presents the results of a national study conducted by Pharmacy2U and PocDoc, designed to address these challenges through a digital-first, pharmacy-led Healthy Heart screening and education programme. The programme aimed to demonstrate both the operational feasibility and the public health impact of combining at-home CVD risk screening with personalised health education and pharmacist support, with a specific focus on reducing health inequalities and supporting NHS priorities.

Background and Rationale

The UK National Screening Committee and other health organisations have long recognised the importance of identifying individuals at high risk of CVD before symptoms manifest.[8] Yet, in 2023–24, just under half of the eligible population attended an NHS Health Check, and uptake was even lower in deprived communities.[6] The need for innovation is clear: resource constraints, lack of integration between digital tools and clinical pathways, and persistent inequalities all limit the effectiveness of existing programmes.

Digital health technologies offer a unique opportunity to overcome these barriers. By enabling at-home testing, delivering personalised education, and integrating pharmacist consultations, digital-first and pharmacy-enabled models can provide equitable, scalable, and patient-centred care. Pharmacy2U, as the UK's largest online pharmacy, and PocDoc, a leader in digital diagnostics, collaborated to operationalise this vision at national scale.

Study Design and Methodology

Study Objectives

The primary aim of the study was to evaluate whether a digital home Healthy Heart Check screening and CVD prevention programme could:

- Reach a broad, national population, including those in hard-to-reach or deprived communities
- Drive positive changes in individual lifestyle factors and health behaviours
- Reduce the burden on primary care through digital engagement and pharmacist support
- Align with NHS priorities for prevention, community-based care, and digital transformation

Study Population

The study targeted existing Pharmacy2U eScript users aged 40–74, with an approximately equal gender split, who were not currently prescribed lipid-lowering medication. Two cohorts were invited:

- A general population cohort, based on the baseline criteria above
- A cohort residing in areas classified as deprived according to the Office for National Statistics 2021 Census data, where at least 35.5% of households in the Local Authority District were classed as deprived in at least one dimension[9]

Recruitment was conducted via email invitations, with clear communication that all elements of the study, including tests and pharmacist reviews, were provided free of charge.

Intervention

Participants received two PocDoc self-test kits for lipid measurement and heart health screening: one at baseline and another after eight weeks. The PocDoc app served as the central hub for test result processing and delivery of personalised, push-notification-driven educational content. Pharmacy2U's digital platform provided clinical support, hosted the eight-week health education programme, and managed logistics for test kit delivery.

"All participants were offered two clinical reviews with a Pharmacy2U pharmacist, coinciding with each test. Following the initial screening and consultation (if a consultation was taken up), participants received an eight-week personalised education programme focusing on their modifiable cardiovascular risk factors, delivered via targeted emails and web-based resources. Those who ordered a test but did not complete it received a generalised health promotion programme over eight weeks."

Any participant with a QRISK®3[10] score ≥10% was advised to see their GP for further management, in line with NHS protocols.[11] These individuals continued to receive the personalised education programme and were offered pharmacist consultations.

Question	Mandatory
What is your first name?	Y
What is your last name?	Y
Your email address?	Y
I have reviewed and agree to PocDoc's Privacy Policy	Y
I agree to get PocDoc News and Announcements	Y
Assigned sex at birth	Y
Date of Birth	Y
Body measurements - height	Y
Body measurements - weight	Y
What is your ethnicity?	Y
UK postcode	Y
What is your smoking status?	Y
What is your diabetes status?	Y
What was your latest blood pressure result? (leave blank if unknown)	N
Have you had a diagnosis of cardiovascular disease (e.g. heart failure, heart attack, angina, stroke)?	Y
Do you have rheumatoid arthritis?	Y
Do you have severe mental illness? (this includes schizophrenia, bipolar disorder and moderate/severe depression)	Y
Are you taking antipsychotic medication?	Y
Are you taking regular steroid medication?	Y
Are you taking blood pressure medication?	Y
Do you have lupus?	Y
Are you currently taking cholesterol-lowering medication (e.g. statins)?	Y
Are you or could you be pregnant?	Y
Has a 1st degree relative under 60, suffered with angina or heart attack?	Y
Do you have chronic kidney disease at stage 3, 4 or 5?	Y
What was your latest HbA1c result in percent? (leave blank if unknown)	N
Do you or have you suffered with atrial fibrillation?	Y
Do you suffer with migraines?	Y
Have you previously had your blood cholesterol levels measured (including total cholesterol, HDL, non-HDL/LDL)?	Y
Do you have diagnosis of, or are you being treated for, erectile disfunction?	Y

Table 1 – Questions asked in Health Questionnaire

How does the Healthy Heart Check work?

The participant completes a questionnaire in the app on their phone or tablet. The questionnaire collects the details needed to complete the QRISK®3 risk assessment (see Table 1). The QRISK®3 risk calculator uses weight and height to calculate BMI. If any of data points aren't known (non-mandatory questions) the QRISK®3 risk calculator uses estimated data in its calculation, as described on its website https://www.qrisk.org/index.php.

Once completed the app directs the participant to perform the lipid test. The app tells the participant when to capture the image on the cassette, and the image is then processed, and the results are shown on screen. They are also e-mailed to the participant as a PDF.

How accurate is the test?

The international NCEP guidelines[12] set out the acceptable Total Analytical Error (TAE) for any device which calculates lipid values as part of clinical decision-making for the treatment of lipid disorders. The PocDoc device has been demonstrated to fall within that TAE for the calculated lipid values[13] (see Table 2).

Clinical utility has also been evaluated reviewing the QRISK®3 results from paired PocDoc device derived results and laboratory derived results. The correlation was high (R^2 >0.9) demonstrating that the QRISK®3 result obtained using the PocDoc Health Heart check was as reliable as it would be through laboratory testing.[13]

The intended use of the PocDoc Healthy Heart Check is to screen individuals and identify those at

	PocDoc's TAE Score Values	NCEP Standard Values
Total Cholesterol	6.9%	<8.9%
HDL Cholesterol	7.7%	<13%
Triglycerides	5.7%	<15%

Table 2 – PocDoc TAE values compared to the NCEP acceptable standard values

risk of CVD as indicated by a QRISK®3 score >10%. With high correlation the device can accurately ensure those individuals who need to be further reviewed within primary care for risk modification beyond lifestyle management are identified and are motivated to seek that onwards care.

Further details on PocDoc accuracy can be found on the PocDoc website.[14]

Data Collection

Multiple data points were collected throughout the study:

- **Health metrics:** Lipid levels, BMI, QRISK®3 score, and other elements of the NHS Health Check, captured via PocDoc self-tests and app
- **Pharmacist consultation records:** Documenting discussions on test results and lifestyle interventions
- **Engagement metrics:** App, webpage, and email interactions throughout the eight-week programme
- **End-of-study survey:** Gathering participant feedback on programme effectiveness and user experience

Outcome Measures

Primary outcomes included participant engagement, diversity of participation (with a focus on deprivation), self-reported lifestyle changes and motivations, and self-reported improvement between Test 1 and Test 2. Secondary outcomes included user satisfaction with the digital-first approach, pharmacist consultation uptake and perceived value, and qualitative feedback from surveys and consultations.

Quantitative analysis was performed on all available metrics, while qualitative analysis was conducted on survey responses and consultation notes.

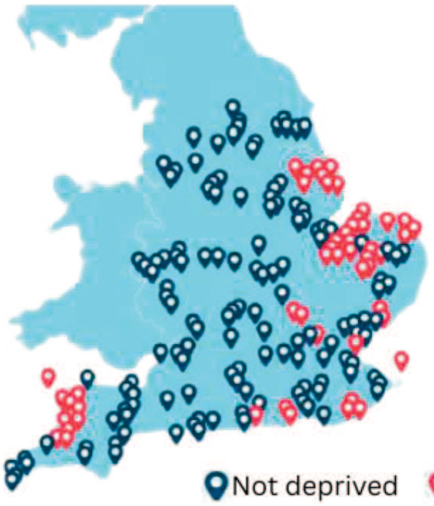
Results

Participant Engagement and Reach

Recruitment was rapid and robust, with 3,871 participants signing up within two weeks. Of these, 2,657 (69%) completed the initial test (Test 1), and 754 (28% of Test 1 completers) completed the follow-up test (Test 2) after eight weeks. The gender split was 56% female and 44% male, with a mean age of 55 years and 10 months.

> "Notably, 7.6% of Test 1 completers came from the most deprived 20% of postcodes, and 29.5% from the most deprived 50%, as determined by the English Indices of Deprivation 2019 (see figure 1). This demonstrates the programme's ability to penetrate communities often underserved by traditional healthcare interventions."

A significant finding was that 28% of those who completed Test 1 had never previously checked their cholesterol, while 42% had checked it within the past year but still chose to participate. The education-specific webpages attracted substantial engagement, with smoking cessation resources being particularly popular among participants who smoked.



3,871 patients

- End-to-end digital care delivered at home
- Equitable access to CVD prevention
- National distribution
- Included over 1,000 hard-to-reach, deprived postcodes (ONS definition)

Figure 1 – Indication of geographical spread of program participants

Behaviour Change and Health Outcomes

Self-reported data from the end-of-study survey indicated that 77% of participants felt "Motivated" or "Very Motivated" to continue making healthier choices, with weight management, dietary improvement, and increased exercise being the most frequently cited themes. Although the short duration of the study precluded statistically significant changes in lipid levels, 46% of those who completed Test 2 reported improved health results.

The ripple effect of the programme was evident: 62% of participants reported sharing the programme with family and friends, and 43% told three or more people about it. This suggests a broader public health impact beyond the immediate participant group.

Clinical Metrics

Among those completing Test 1, 22% had a total cholesterol level above 5.0 mmol/L, and 35% had a triglyceride level above 2.3 mmol/L, both above healthy thresholds. Furthermore, 22% had a QRISK®3 score ≥10%, indicating high risk and warranting GP referral. Additional analysis revealed that 74% of participants had a BMI above the healthy range, with 38% classified as obese (BMI ≥30), and 7% as current smokers. These compare to national statistics suggesting 26.5% of UK adults are living with obesity, increasing to 37.4% for those adults living in the most deprived areas,[15] and 11.9% of adults it the UK are current smokers.[16]

Nationally the proportion of adults with a total cholesterol level above 5.0 mmol/L is 53%.[17]

User Experience and Satisfaction

The digital-first approach was well received. Survey data showed that 95% of respondents found the app download "Easy" or "Very Easy," and 86% found result interpretation similarly straightforward. The convenience of at-home testing was highlighted by 92% of participants, who found the process more convenient than visiting a GP. Overall ease-of-use scores were 94% among those who completed the full programme and 75% among those who completed only Test 1. Satisfaction scores were similarly high: 87% for full programme completers and 69% for Test 1 only.

Pharmacist Consultations

Eighteen percent of participants booked a free pharmacist consultation, with an 84% attendance rate. Booking the consultation was rated "Easy" or "Very Easy" by 98% of users, and 84% found the consultation "Helpful" or "Very Helpful." Among those who did not book a consultation, 32% reported not feeling a need to, and 19% said they might book one in the future.

Consultations focused on understanding Healthy Heart Age and QRISK®3 scores (90% of consultations), interpreting raised lipid levels (52%), understanding BMI implications (98%), and making changes to diet and weight (the most common area of commitment to change).

Discussion

Comparison with Traditional NHS CVD Screening

National screening programmes in the UK vary in their uptake rates, with bowel cancer screening achieving around 52% and cervical cancer screening up to 80%.[18] The NHS Health Check, however, has an uptake rate of just 39%.[19] The invitation methods used for cancer screening programmes is proactive and driven at the GP practice level, which is not the same for Health Checks. Invitation method appears to impact the uptake rates of these programmes. The Healthy Heart Study achieved a 69% completion rate for Test 1, substantially outperforming the NHS Health Check, using an invitation methodology that created greater momentum for the test to be engaged with. Furthermore, 28% of Test 1 completers went on to complete Test 2, indicating sustained engagement.

"Most significantly, 22% of participants were identified as high risk (QRISK®3 ≥10%), a rate consistent with traditional NHS Health Check findings.[20] This demonstrates the effectiveness of the digital-first approach in identifying individuals at serious risk of CVD events."

It should be noted that while the prevalence of participants identified as high risk was comparable to those found through the Health Check programme, the prevalence of raised total cholesterol was a lot lower (22% in the study compared to a national prevalence of 53%), and the prevalence of obesity was a lot higher (38% in the study compared to 26.5% nationally). This may suggest a bias within the participant population which would be worthy of further study to understand the intersectionality of obesity, raised cholesterol, and high CVD risk, and the implications of that within a screening programme.

Addressing Health Inequalities

The programme's ability to include 7.6% of participants from the most deprived 20% of postcodes and 29.5% from the most deprived 50% is particularly noteworthy. Digital-first, pharmacy-led interventions can overcome barriers such as time constraints, transportation issues, and health literacy challenges, providing a convenient and user-friendly alternative to in-person visits. The high satisfaction rates and ease of use reported by participants suggest that this model could be especially beneficial for those who face challenges accessing traditional healthcare services.

The finding that 28% of participants had never previously checked their cholesterol underscores the programme's success in engaging individuals who may have been missed by conventional screening. The digital platform and at-home testing approach can thus play a vital role in reducing health disparities and improving cardiovascular outcomes across diverse populations.

Impact on Patient Awareness and Health Behaviours

The programme successfully motivated participants to adopt healthier lifestyles, with 77% reporting increased motivation for positive behaviour change. Key themes included weight management, dietary improvement, and increased physical activity. While the study's short timeframe limited the ability to detect significant changes in lipid profiles, 46% of Test 2 completers reported improved health results. The influence of the programme extended beyond individual participants, with 62% sharing their experience with others.

Personalised digital education was a critical driver of engagement and behaviour change. Tailored advice based on individual risk factors proved effective in promoting actionable health improvements, supporting national priorities for prevention and early intervention.

Reducing Primary Care Workload

The digital-first approach offers a viable solution to alleviate pressure on primary care services. By enabling at-home lipid testing and providing pharmacist consultations for result interpretation and lifestyle guidance, the programme reduces the

Thoughts from the Pharmacists

Sana Ellahi

"I think the pharmacist consultations did make a difference to the patients' outcomes as there were so many times where the patient would say something like, 'I didn't know this could affect cholesterol.'"

Paidamoyo Mutasa

"The consultations were helpful and some changes to cholesterol levels were also seen with the results on the second test. It kept patients motivated to make improvements in their diet and exercise in preparation for the second test."

Amrit Kalyan

"It is a great way for patients to take a proactive approach to managing their health and well-being. Patients embraced at-home testing with ease and showed a great understanding of the simple-to-read data. The study showed how empowering patients with accurate self-testing data can be the catalyst and motivation needed to bring about positive, manageable changes for healthier lives."

Rania Hassan

"One participant in particular mentioned that he was so happy and grateful to PocDoc and Pharmacy2U because of the net improvement in BMI and lipid profile, after implementing the agreed plan of lifestyle changes with the Pharmacy2U pharmacist."

need for in-person GP visits. According to NHS data, shifting to digital at-home tests could save approximately 20 minutes of primary care time per check.[20] The fact that only 18% of participants booked pharmacist consultations suggests for some clinical support was something they wished to engage with as part of their programme, but that most chose to manage their health independently using digital tools, while still having access to clinical support when needed.

The Evolving Role of Pharmacists

Pharmacists played a pivotal role in this study, offering clinical reviews and personalised advice based on test results. High satisfaction rates with pharmacist consultations underscore their value in supporting CVD prevention. Expanding the pharmacist's role to include ongoing health coaching and referrals for those requiring further intervention could enhance their contribution to community-based healthcare delivery. This model also demonstrates how pharmacists can bridge gaps in care for populations underserved by traditional healthcare systems.

Opportunities for Improvement

While the Healthy Heart Study achieved significant success, opportunities for improvement were identified through participant feedback and programme analysis. Areas for enhancement include technical and customer support, which will be addressed in future iterations. It is also recognised that as this study was carried out under a commercial umbrella, the conversion funnel from invitation to test may not represent the full population demographic in the same way an NHS programme might achieve.

Further integration with NHS digital records, expanded outreach to underserved communities, and continued refinement of the digital education content are also priorities for ongoing development.

Future Directions

The success of this digital-first, pharmacy-led approach opens up several avenues for future development:

- **Expansion to other health conditions:** The model can be adapted for chronic conditions such as type 2 diabetes and renal health, providing comprehensive at-home screening and management solutions for a broader range of health issues
- **Enhanced integration with NHS services:** Future iterations could enable direct data sharing with GP practices and integration with NHS digital

platforms, ensuring continuity of care and broader reach

- **Artificial intelligence and predictive analytics:** Incorporating AI and machine learning could enhance personalisation, develop predictive models for individual risk, and provide instant patient support through chatbots
- **Expansion of the pharmacist's role:** Online and community pharmacists could offer more comprehensive reviews, ongoing health coaching, and facilitate referrals to primary and secondary care as needed
- **Addressing health inequalities:** Targeted outreach strategies, culturally adapted content, and partnerships with community organisations can further improve access in deprived areas.

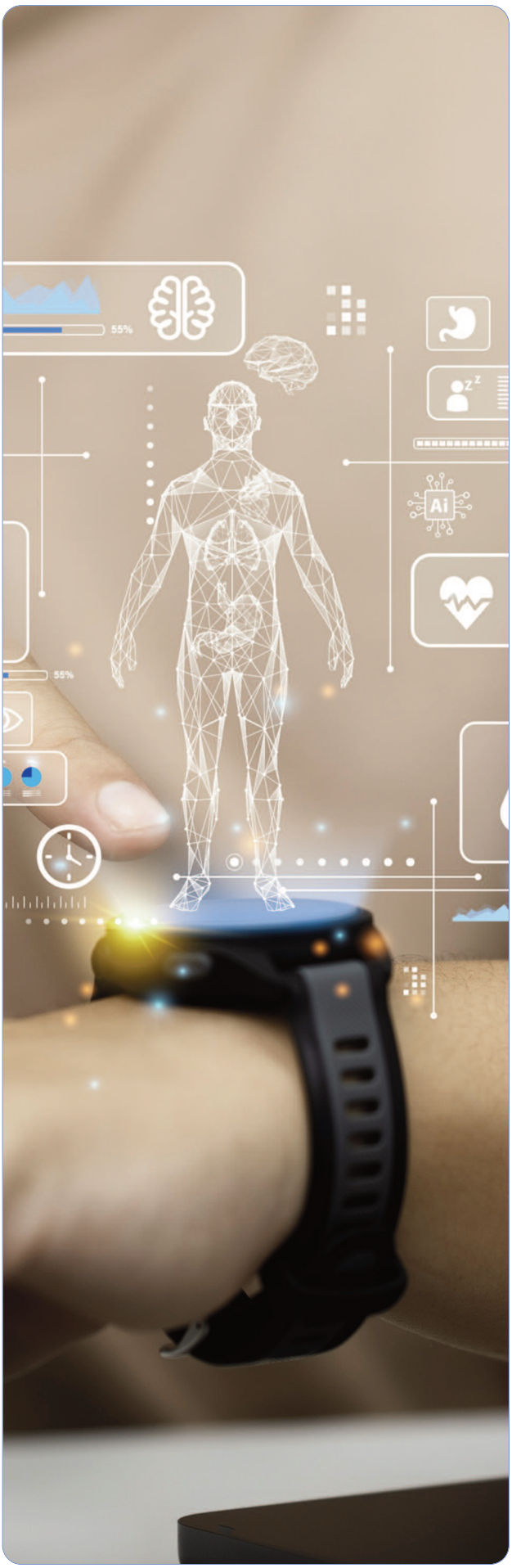
Conclusion

The Healthy Heart Study demonstrates the transformative potential of digital-first, pharmacy-led healthcare interventions in addressing major public health challenges such as CVD. By combining innovative technology with community-based care, this model aligns closely with national health priorities for prevention, community-centred care, and digital transformation. The study provides robust evidence that digital-first approaches can achieve high engagement, reach underserved populations, drive behaviour change, and reduce the burden on primary care.

Future innovation should build on these findings to enhance programme effectiveness, expand to other chronic conditions, and deepen integration with NHS services, ensuring equitable access to preventative healthcare for all.

Best Practice Takeaways and Recommendations

- Digital-first, pharmacy-led screening programmes can significantly improve reach and engagement, particularly in deprived communities
- Personalised education and at-home testing drive positive behaviour change and empower self-management
- Pharmacists are well positioned to provide



clinical support, health coaching, and bridge gaps in care for underserved populations

- Integration with NHS digital systems and expansion to other chronic conditions will further enhance impact and scalability
- Continuous improvement in digital delivery, technical support, and outreach strategies is essential for maximising effectiveness and reducing health inequalities

Conflict of Interest Declaration

Dr Kate Bunyan – I am a paid consultant to PocDoc

Steve Roest and Sarah Cameron are both employees of their relevant companies

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Improving communication about medication at discharge: a quality improvement project

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Introduction

Inadequate communication of medication information in hospital discharge summaries has been studied for many years. In particular, problems have identified the omission of documented reasons for newly started medications, dose changes and discontinued medications.[1,2,3] Accurate and complete information in discharge summaries is crucial for avoiding misunderstandings and incorrect prescribing at this transition of care out of hospital, and so potentially reducing drug-related problems and decreasing the likelihood of patient harm. One recent study from Norway noted two main areas for improvement of medication documentation at discharge: 'indication for medication use' and 'reasons for change.' The authors argue that this information is most likely not automatically available in a hospital's electronic medication management system or when using the electronic tool for compiling the medication list but instead necessitates manual entry.[4]

Expanding the role of hospital pharmacists in medication reconciliation, such as involving them in the preparation of electronic discharge summaries, may be an effective strategy to reduce discrepancies and improve the discharge process. Due to their clinical knowledge and focus on medication safety, pharmacists are equipped to ensure that medication lists are accurate, comprehensive, and clearly communicated to both patients and primary care providers. Their involvement is particularly valuable during transitions of care, when the risk of medication errors such as omissions, duplications, or inappropriate prescribing is heightened. Supporting the integration of pharmacists into the discharge process, various studies have demonstrated their positive impact on the quality and clarity of medication-related communication, ultimately contributing to improved patient outcomes.[5,6,7,8]

Discharge medication reconciliation (DMR) notes written by pharmacists in the electronic prescribing system aim to improve the quality of medication information in discharge summaries.[9,10] The DMR process is not specifically about pharmacists correcting errors in the discharge summary but about improved communication of medication changes. Pharmacists record any changes to patient's medication in the electronic prescribing system during the inpatient stay and summarise these changes in a DMR note. This note is automatically included in the discharge summary written by the hospital doctor, which also incorporates TTO (to take out) medication prescribed at discharge. The discharge summary is transmitted electronically to the patient's GP, and a copy is provided to the patient. If the patient has consented to the discharge medicines service, then the DMR note and the list of medication at discharge are also transmitted to the patient's nominated community pharmacy. Our surgical pharmacy team have adopted the national electronic discharge standards such that DMR notes should contain, where appropriate, details of any new, changed, stopped or held drugs (with reasons for these changes), an explicit statement if no intentional changes to regular medication occurred, the name of the pharmacist writing the DMR, and date of entry.[11]

Another aspect of communication at discharge relates to patient understanding of any information, including the use of medical abbreviations, they have been given. Medical records, prescriptions, and notes are filled with abbreviations to help medical staff convey information efficiently. However, though there are

accepted standard medical abbreviations,[12] there is a risk that abbreviations may impede communication with patients, compromise patient safety or lead to misinterpretation.[13] In one deprescribing study from Australia, specifically based in surgical wards, patients expressed the need to avoid jargon and the need for simple verbal communication of pertinent points including the name of the medication, indication, adverse effects and duration at the time of discharge.[14] Hence, use of medical jargon should be avoided when communicating with patients.[15]

We aimed to evaluate the quality of the DMR notes for surgical patients as part of a quality improvement project (QIP) by assessing whether the notes reflected all changes made to the patient's medication from admission to discharge. In addition, for the second phase of this project, we also report on the use of medical abbreviations in the DMR notes, as well as describing the drugs commented on in these notes.

Method

This was a retrospective cohort study of a sample of DMR notes. Two fourth-year pharmacy undergraduates, fully briefed on this QIP, conducted the initial analysis and delivered the intervention in January 2025 (phase 1), repeating the analysis in March 2025 (phase 2). Surgical discharges with completed DMR notes were reviewed in both phases. These notes were compared against medication recorded on the electronic prescribing system from admission to discharge and evaluated against local standards. A clinical accuracy error identified if any of the four standards (new, changed, stopped or held drugs, with reasons) were unmet. Phase 1 findings were discussed with the surgical pharmacist team immediately post-evaluation. For phase 2 the actual medication named in the DMR note was categorised according to the main British National Formulary (BNF) therapeutic chapters.[16] Again for phase 2, presence of abbreviations was recorded and these were classed as standard[12] or otherwise. Data were collated and analysed using Microsoft Excel. All categorical variables were described in terms of frequency and percentage, including

	Phase 1 January 2025 N = 107 DMR notes	Phase 2 March 2025 N = 114 DMR notes
Clinical accuracy error	8 (8%)	9 (8%)
Pharmacist name missing	4 (4%)	2 (2%)
Date of DMR note missing	7 (7%)	2 (2%)

Table 1. Proportion of DMR notes not meeting local standards over the two phases

error type. As this project qualifies as a service evaluation under UK NHS Research Ethics Committee guidelines, formal ethical approval was not required.

Results

There were 481 surgical discharges in January, with 107 completed DMR notes reviewed. These notes documented that patients received a total of 165 new medications during admission, averaging 1.54 per patient. Of the 580 surgical discharges in March, 114 completed DMR notes were reviewed, with patients receiving 186 new medications overall, an average of 1.63 per patient. Table 1 presents the proportions of DMR notes that did not meet the standards across both time periods (January and March).

The BNF drug categories mentioned in the notes are presented in Table 2. For the phase 2 analysis, 60 notes included various abbreviations. Among these, abbreviations not listed as standard[12] appeared in 34 (30%) of the DMR notes. These included ABX (23 occurrences), AKI (6), eGFR (3), CrCl (2), and PPI (4).

Discussion

This study adds to our understanding of the role of surgical pharmacists in documenting in a DMR note those medication changes that occurred

BNF chapter	DMR medications mentioned (n=274)
1. Gastrointestinal system	48 (18%)
2. Cardiovascular system	44 (16%)
3. Respiratory system	5 (2%)
4. Central nervous system	50 (18%)
5. Infections	73 (27%)
6. Endocrine system	12 (4%)
7. Obstetrics, gynaecology and urinary tract disorder	5 (2%)
8. Malignant disease and immunosuppression	3 (1%)
9. Nutrition and blood	23 (8%)
10. Musculoskeletal and joint disease	7 (3%)
12. Ear, nose and oropharynx	1
13. Skin	2
15. Anaesthesia	1

Table 2. BNF category of medicines appearing in the DMR notes

during a patient's hospital stay. There was an improvement in administrative aspects of the DMR notes: pharmacist name not being recorded fell from 4% to 2% and the date of the DMR not being recorded from 7% to 2%. However, clinical accuracy errors remained similar at 8% across all DMR notes for both time periods. This may be due to the relatively low clinical error rate at baseline having little scope for improvement or further improvement requiring more time, input and focus from the team.

"The BNF class of drugs that appeared in the DMR notes for these surgical patients is slightly different to our previous work that looked at notes from across the Trust as a whole.[17] For this surgical cohort Infections attracted the most notes compared to Cardiovascular in our prior study."

Abbreviations are used in the DMR note as part of accepted medical jargon and also because there is a character limit to our DMR notes. Just under a third of the notes contained a non-standard abbreviation and we did not consider patient understanding with regards to standard medical abbreviations, but rather professional assumptions were made. Ideally, if there is adequate communication at discharge between the patient/carer and a ward nurse, pharmacist or doctor about the discharge plan and associated medication, these abbreviations may have been explained and understood. If this explanation does not occur then the patient/carer would receive a discharge summary probably containing abbreviations written by the discharging doctor as well as DMR notes that may also contain pharmacist-written abbreviations. One study with patients identified patient confusion stemming from medical information in the discharge summary if it was dense with jargon or otherwise incomprehensible to participants.[18] Participants in this study felt the usefulness of receiving copies of discharge summaries could be increased by: including a patient information section, avoidance of acronyms, and jargon or technical terms explained with lay language.[18] A similar study has emphasised that abbreviations should be spelt out in full and jargon should be accompanied by lay explanations.[19] It has been reported that automated expansion of medical abbreviations and acronyms can improve patient understanding of their health information, and this may be a possible future development.[20]

Limitations include this evaluation only compared the DMR note with the discharge prescription and not with the actual discharge summary which may have included doctor-written text also explaining why medication changed during admission. Furthermore, not all admissions, especially for short stay patients, have a pharmacy review of the medication. Our patient sample was from one hospital hence results may not be generalisable. We have made assumptions as to which abbreviations may be familiar or unfamiliar to patients. Importantly, this study does not provide insight into the quality of the inpatient medication therapy for our discharged patients as hospital medication lists may contain discrepancies relating to how patients actually use their medication, as well as whether the medications listed are the optimal choice.[21,22] Hence, ensuring only completeness of information transmitted at discharge is insufficient.

An additional phase 3 of this QIP will seek to improve the process further, including consideration of patient engagement if we plan to eliminate the use of some or all abbreviations, as well as rolling out the standards for our DMR notes to all pharmacy teams in the hospital.

Conclusion

During the period of our project we put in place new processes to improve the quality and completeness of our DMR notes across surgical wards. This led to some, but not full, improvement. Further enhanced work is required to embed the processes involved into standard working practices.

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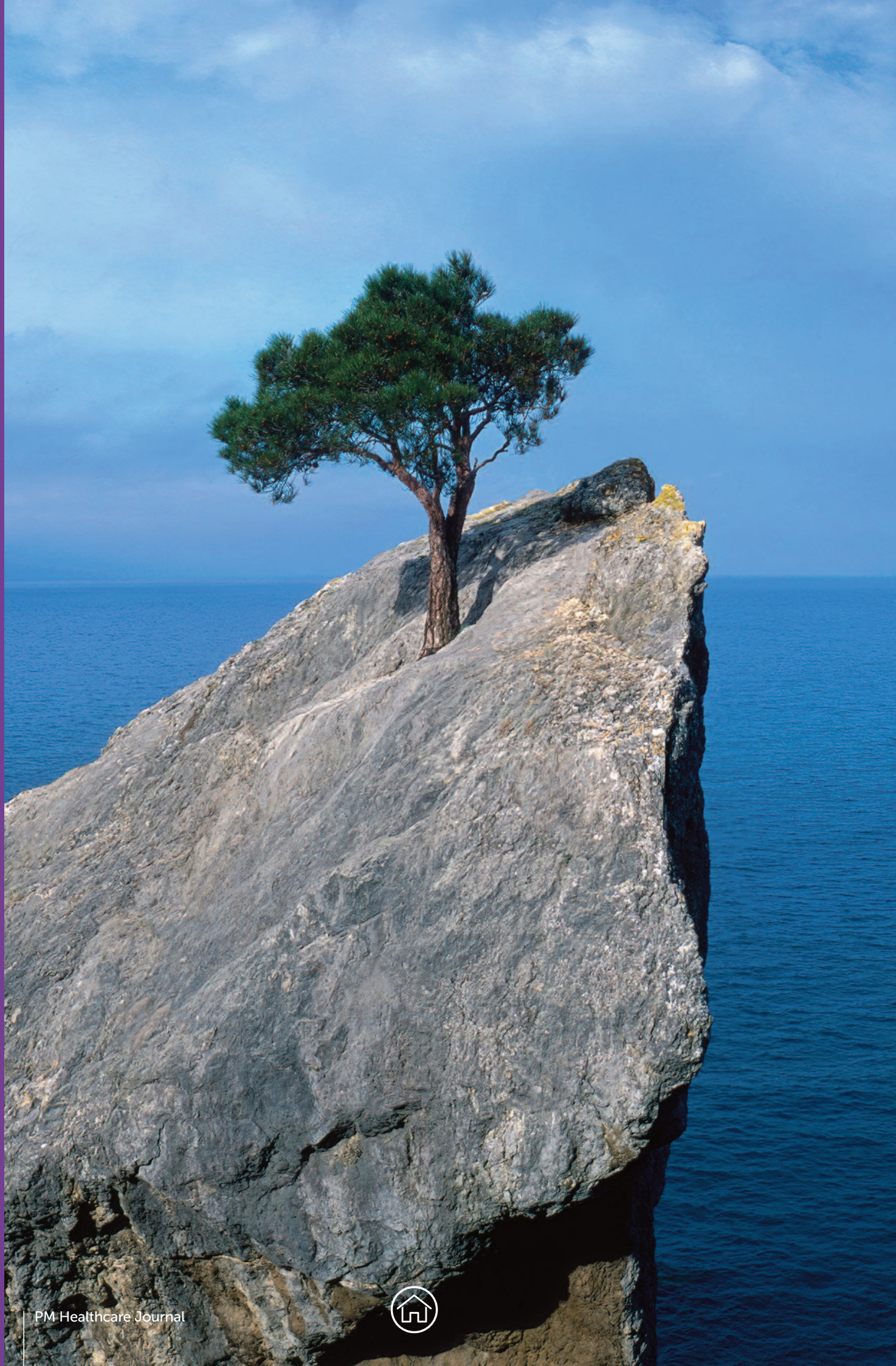

Change Is Coming. Lead It or Get Swallowed by It: A Strategy Guide for Pharmacy Leaders

For the pharmacy leaders who see restructure as their moment to redefine what's possible, transforming crisis into opportunities.

Rachael Lemon

Rachael is an executive coach, healthcare leadership consultant and architect of transformation for NHS professionals navigating organisational evolution. Her work focuses on authentic leadership development and innovative change management strategies that turn healthcare challenges into competitive advantages. Through her 'Empowerment Series,' she supports healthcare leaders in building sustainable, high-impact careers whilst driving systemic improvement.

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Your difference is your greatest leadership asset – now is the time to prove it

Another restructure email. Another 'transformation opportunity.' Another chance for leaders like you to step up and show what authentic leadership looks like when the stakes are high.

"You've seen the statistics: 74% of pharmacists experiencing burnout according to the Royal Pharmaceutical Society, over 40% reporting work-related stress in the NHS Staff Survey. But here's what those numbers don't capture: the extraordinary leaders who are using this exact moment to revolutionise what pharmacy leadership looks like."

You're not just surviving restructure: you're the architect of what comes next.

This isn't about better resilience or corporate-speak transformation. This is about recognising that every crisis creates space for innovation, and you're positioned to fill that space with something remarkable.

The question isn't whether you can handle the pressure. The question is: What will you build with it?

Transform challenge into competitive advantage

The leadership opportunity hidden in plain sight

Every transformative leader has a defining moment when they stop reacting to change and start driving it. For pharmacy leaders navigating ICB restructures, community contract evolution, and rapid service digitisation, that moment is now.

You've been handed something unprecedented: a clean slate. The old ways of doing things are being dismantled anyway, which means you get to design what replaces them.

While others see chaos, you see the chance to build something better. While others see resource constraints, you see innovation challenges. While others see impossible demands, you see the chance to prove what's actually possible when exceptional leaders take charge.

My journey from overwhelmed to opportunity

I've stood where you're standing, in the eye of restructure storms, watching systems shift around me while absorbing the emotional weight of teams looking for direction. The breakthrough came when I realised that my exhaustion wasn't evidence of system failure, it was data about untapped leadership potential.

Your challenges aren't obstacles to overcome, they are intelligence about where transformation is needed most. And you, still standing, still innovating, still caring deeply about patient outcomes, are exactly the leader equipped to drive that transformation.

Embrace your unique leadership voice

The system needs what you bring

It's time to challenge the leadership myths that limit your potential. The most empowering realisation for pharmacy leaders right now: the traditional leadership playbook doesn't work in healthcare. The corporate strategies, the management frameworks, the one-size-fits-all approaches. They weren't designed for the complexity you navigate daily.

But here's your competitive advantage: your authenticity is your superpower.

When you acknowledge the reality of current pressures, you create space for honest problem-solving. When you name the complexity without spinning it, you build the trust that enables real solutions. When you lead with humanity instead of hiding behind professional facades, you model the leadership your teams actually need.

This isn't soft leadership, it's strategic leadership. And it's powerful.

The leadership energy that transforms teams

Pharmacy leaders right now have the opportunity to redefine what authentic leadership sounds like in healthcare. Instead of corporate messaging that feels disconnected from frontline reality, you can model something revolutionary: leadership with a pulse.

Transformative leadership in this moment sounds like:

- 'We're navigating complexity together, and I'm committed to finding solutions that work for everyone'
- 'Your expertise matters, and I want to hear your ideas for making this transition successful'
- 'We're building something better, and it starts with honoring what we've learned'
- 'This is challenging, and I believe in our ability to rise to meet it'

That's not just leadership: that's the kind of leadership that inspires hope and creates ripples.

Build empowering environments that elevate everyone

Create Spaces for collective innovation, not just individual coping

The healthcare system's response to change has been predictably individualistic: asking people to adapt better rather than creating conditions where adaptation becomes innovation.

> **"Transformative pharmacy leaders reject this model. Instead of asking your team to cope with restructure, you create environments where restructure becomes the catalyst for breakthroughs."**

This means:

- **Normalise the learning curve:** When someone struggles with new systems, respond with skill-building support, not performance pressure
- **Celebrate progress over perfection:** Acknowledge every step forward, knowing that transformation is iterative, not instantaneous
- **Distribute leadership opportunities:** Use restructure as a chance to develop the leadership potential that already exists in your team, not just direct from above
- **Make innovation psychologically rewarding:** Reward creative problem-solving and intelligent risk-taking, not just compliance with new protocols

The Micro-Innovation revolution

Leadership development in real time

You don't need a leadership retreat to build transformative skills. You need systematic development of leadership capacity throughout your day.

This looks like taking five minutes after difficult conversations to reflect on what worked and what could be refined. Protecting time for strategic thinking, not just tactical execution. Building leadership skills through real challenges, not theoretical frameworks.

This isn't leadership development as an add-on, it's leadership development as the core of how you approach every interaction, every decision, every moment of influence.

Turn restructure into your platform for innovation

Reframe survivor strength as leadership, intelligence

If you've stayed while others transitioned elsewhere, you're dealing with something more complex than increased workload. You're processing what I call 'continuity leadership' the unique perspective that comes from choosing to build something better from within existing systems.

You might recognise this in these moments:

- Feeling energised by the opportunity to shape what comes next
- Questioning how to balance stability with innovation
- Grieving old approaches while designing new possibilities
- Feeling connected to a mission that transcends any single role or structure

This isn't just professional resilience, it's strategic positioning. You understand the systems from the inside, you know what needs preserving and what needs revolutionising, and you have the credibility to drive change because you've chosen to stay and build.

Future-Proof your leadership identity by shaping the future

The most strategic thing you can do in a restructuring environment is build a leadership identity that transcends any single role or organisation. Not because you're planning to leave, but because your value as a leader extends far beyond any job description anyone will ever write for you.

You are shaping the future of pharmacy leadership. Your decisions today create the template for how healthcare leaders navigate complexity tomorrow.

Your leadership arsenal includes:

- Crisis innovation skills forged through real-world healthcare battles you've actually fought and won
- Change leadership expertise earned through multiple successful transformations
- Team development mastery gained from supporting colleagues through growth
- Strategic thinking capacity tested in resource-dynamic environments
- Ethical leadership foundation built through patient-centered decision-making

This isn't just your professional identity, it's your leadership legacy. And it's bigger than any single restructure, policy change, or organisational shift.

Lead with emotional intelligence

Because the system needs leaders who feel Emotional Intelligence

This is the time to have the courage to stay connected and still drive results. The most revolutionary thing a pharmacy leader can do right now is refuse to disconnect from the human element while still delivering exceptional outcomes. To feel the weight of responsibility while channeling it into innovation.

This isn't about emotional regulation, it's about emotional intelligence as a leadership strategy.

When you stay present to the challenges while maintaining focus on solutions, you model resilience that inspires rather than depletes. When you acknowledge difficulty while celebrating progress, you create momentum that sustains through complexity. When you honour the human cost of change while driving toward better outcomes, you build trust that enables transformation.

Strategic authenticity

When leaders show their humanity

The leadership model that works in healthcare crisis isn't about projecting invulnerability, it's modelling strategic authenticity that builds connection and drives solutions.

This sounds like:

To your team: 'This transition is complex, and we're going to figure it out together. I'm confident in our ability to create something better.'

To senior leadership: 'Here's what we're learning from implementation, and here are the adjustments that will optimise outcomes.'

To yourself: 'I'm allowed to find this challenging while still being the leader my team needs. Growth happens in the stretch.'

Strategic authenticity isn't oversharing, it's truth-telling that creates connection, builds trust and gets everyone working toward real solutions.

Your leadership transformation starts now

The boundaries that build better systems

Every time you work sustainably within your capacity, you model what healthy leadership looks like. Every time you advocate for realistic timelines and adequate resources, you create space for quality outcomes. Every time you say no to demands that compromise patient care or team wellbeing, you protect what matters most.

Transformative leaders understand that boundaries aren't limitations, they're the framework that enables sustainable excellence.

> **"Your 'no' to unrealistic demands creates space for innovative solutions. Your insistence on proper support enables team success. Your commitment to quality over quantity models the standards that elevate entire systems."**

This isn't resistance, it's leadership that prioritises long-term success over short-term compliance.

The leadership legacy, you're actually building

You think you're managing restructure, but you're actually modeling something transformational:

how to lead with integrity when systems are evolving rapidly.

Every day you stay engaged instead of disconnecting, you show others what's possible. Every time you speak truth while building solutions, you create trust that survives any policy change. Every moment you choose innovation over resignation, you demonstrate what leadership looks like when it's guided by purpose rather than just process.

This is your unique leadership signature. Not the one from management textbooks, but the one forged through real challenge, tested under pressure, and refined through caring about outcomes more than appearances.

Still standing strong: Your transformation action plan

Week 1: Claim your leadership platform

Measurable outcome goal: Establish yourself as the solution architect, not just the problem manager.

Action: Identify one specific process or service area where restructure creates measurable innovation opportunity.

Metric: Present one concrete improvement proposal to senior leadership within 7 days.

Impact Indicator: Team members start bringing you their ideas for optimisation, not just their problems.

Success marker: You've shifted from reactive management to proactive leadership positioning.

Week 2: Build strategic boundaries that deliver results

Measurable outcome goal: Transform boundary-setting from protecting yourself to driving better results.

Action: Implement one non-negotiable practice that demonstrably improves patient outcomes or team efficiency.

Metric: Track one specific quality indicator (dispensing accuracy, patient wait times, team satisfaction score) that improves by 10%+ within two weeks.

Impact Indicator: Senior leadership asks you to share your approach with other teams.

Success marker: Your boundaries become the new standard because they deliver superior results.

Week 3: Practice transformative leadership that builds capacity

Measurable outcome goal: Develop leadership capability across your entire team, not just in yourself.

Action: Facilitate one structured problem-solving session that results in implementable team-generated solutions.

Metric: Document 3+ actionable improvements that came directly from team input, then implement at least one within the week.

Impact Indicator: Team members start leading mini-innovation projects without being asked.

Success marker: Your team becomes known as the department that 'figures things out' instead of escalating problems.

Week 4: Design your leadership legacy with evidence

Measurable outcome goal: Build a documented track record of transformation leadership that opens new opportunities.

Action: Create a 'Leadership Impact Portfolio' documenting specific challenges you've transformed into opportunities.

Metric: Quantify at least 3 measurable improvements you've driven (efficiency gains, quality improvements, team development successes, patient satisfaction increases).

Impact Indicator: You're invited to mentor other leaders or contribute to organisation-wide improvement initiatives.

Success marker: Your leadership approach becomes a case study others want to learn from.

Still standing strong: Your empowerment checklist

Thriving during NHS restructure isn't just survival, it's the foundation for transformational leadership.

Pharmacy leaders across the system are discovering that restructure creates unprecedented

opportunities for innovation, team development, and professional growth. What's being labeled as disruption is actually the chance to design something better.

This checklist isn't about managing through change, it's about leading transformation.

1. **Reframe challenge as competitive advantage**

   Every restructure challenge you successfully navigate builds leadership capacity that can't be taught in any classroom. You're developing expertise that will serve you throughout your career.

2. **Recognise your strategic position**

   Your choice to stay and build makes you uniquely positioned to shape what comes next. You understand the systems, you know the people, and you have the credibility to drive meaningful change.

3. **Watch for innovation opportunities**

   Restructure creates space for new approaches. Look for what's broken and needs fixing, connections that need building, relationships that could be strengthened, and services that could be enhanced that actually work better for patients.

4. **Micro-Innovations build momentum**

   Small improvements compound into significant transformation. Protect time for strategic thinking, celebrate incremental progress, and build on what's working.

5. **Set empowering boundaries**

   Sustainable excellence requires strategic boundaries. Frame these as quality standards that enable your best work, not limitations that restrict your contribution.

6. **Anchor into your growing identity**

   You are becoming a more skilled leader through this experience. Own the growth, document the learning, and recognise the expanding capacity.

7. **Start building your next chapter**

   Use this transformation as a platform for continued leadership development. What skills do you want to develop? What opportunities do you want to create?

   Look for what's broken and needs fixing, connections that need building and services that could actually work better for patients.

   These changes will maintain my revolutionary energy while ditching the consultant-speak that dilutes your message.

Your leadership Revolution: from structure to renaissance

Still standing strong? That's not just resilience that's revolutionary leadership in action.

The fact that you're here, engaged with this content, means you haven't just survived restructure, you've positioned yourself to thrive through it. Despite the complexity, the pressure, the constant evolution, you're still committed to excellence.

That commitment is the foundation of transformation.

> **"You didn't choose this restructure, but you can choose how you lead through it. You can't control every system change, but you can control how you respond to change. You can't transform healthcare overnight, but you can model what exceptional leadership looks like when systems are evolving rapidly."**

Your difference, your commitment to building something better rather than just managing what's broken - is your greatest leadership asset.

Don't just adapt to systems in transition. Lead the transition by demonstrating what's possible when exceptional leaders take charge. Show what happens when authenticity meets strategy, when humanity meets excellence, when caring meets innovation.

You don't need to be superhuman to lead transformation. You need strategic boundaries, sustainable practices, fierce professional pride, and the courage to build solutions instead of just managing problems.

You are still standing strong, and that's not just survival, that's the foundation of revolutionary leadership.

Share this blueprint with your team. Add your own innovations. And remember: we don't transform systems by staying silent. We transform them by leading boldly, authentically, and with unwavering commitment to what's possible.

The NHS doesn't need more leaders who manage change. It needs more leaders like you: still standing strong, still innovating, still refusing to accept that 'good enough' is good enough.

We're not waiting for transformation. We are the transformation.

Led by pharmacy professionals who choose innovation over resignation, solutions over complaints, and possibility over limitation.

You're not just managing restructure. You're the one who's going to revolutionise what comes next.

Stay strong. Keep leading. Keep building. The breakthrough isn't just coming - you're creating it.

Change is the only constant you can lead or you can follow.

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Note: These references reflect current research and clinical experience in healthcare leadership development, providing evidence-based support for the transformational leadership strategies outlined in this blueprint while maintaining the empowering, action-oriented approach that makes this content genuinely impactful for pharmacy leaders ready to drive positive change.

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