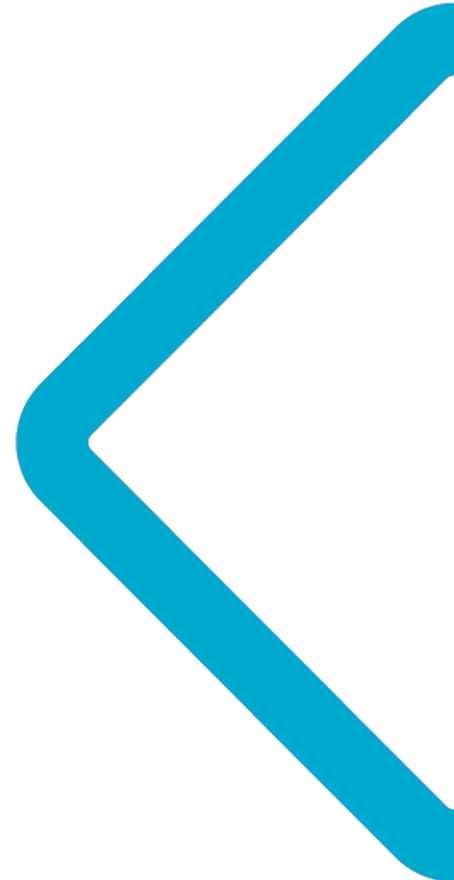# ICB Pharmacy Digital and Data Sub-Strategy – 2025 - 2030

April 2025 – FINAL

Introduction

- Cheshire and Merseyside is a large and complex system with many stakeholders involved in supporting the health and care for a population of 2.7m people

- From a pharmacy perspective, as well as pharmacy services in our NHS Providers, there are 559 community pharmacies across our nine places which range from small independent stores to ones being part of a large national pharmacy chain

- Medicines spend across the ICS is estimated at £900m in 24/25 and will be over £1billion when specialist commissioning is transferred

- Medicines are the most common health intervention, with pharmacy involvement within all areas of our integrated system

- There are significant opportunities for digital and data to improve pharmacy services in all sectors across C&M.

Bringing together key participants to improve health and care

C&M ICS Digital and Data Strategy

C&M ICS published its overarching [Digital and Data Strategy](#) in November 2022 and a number of digital and data sub-strategies have been subsequently developed to allow for more detailed and focussed strategic priority development across a number of key thematic areas.
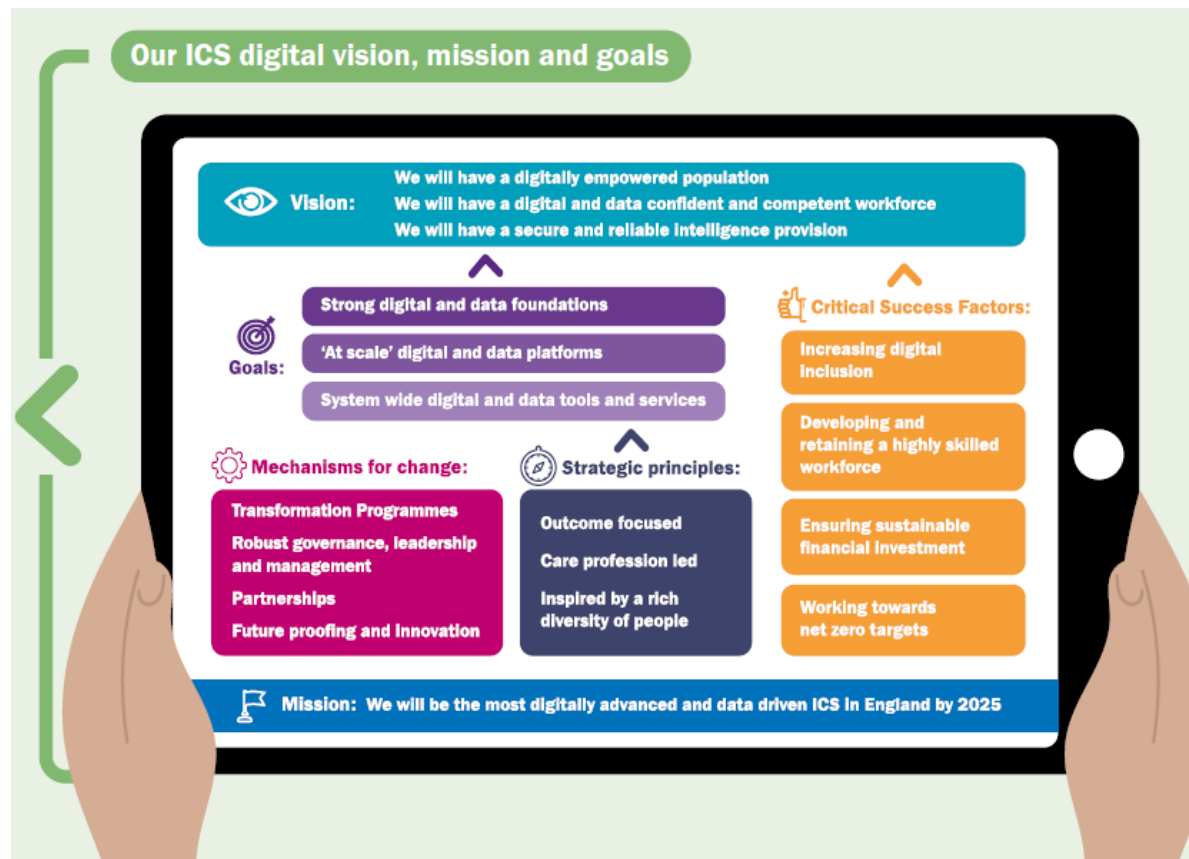
Underpinned by more detailed digital and data sub-strategies in:
- Primary Care
- Community Services
- Mental Health
- Diagnostics
- Cyber Security
- Artificial Intelligence
- Maternity and Neonatal
- Digital and Data workforce
- Data and Analytics

And now Pharmacy…..

Digital and Data Developments in Pharmacy

- There have been significant digitally enabled changes both in pharmacy services and the wider health and social care sector over the last decade. Some of the most significant technologies for pharmacists have included robotic dispensing solutions, electronic bedside dispensing cabinets, the NHS Electronic Prescription Service (EPS) and Electronic Prescribing and Medicines Administration (EPMA) solutions linked to Electronic Patient Records (EPRs) – to name just a few

- There has also been a big change in the digital and data skills in the pharmacy workforce, including the introduction of Digital Pharmacy specialists with a focus on maximising the opportunity digital and data can bring to improve quality, safety and service efficiency

- This sub-strategy outlines the vision, strategic goals, priorities and intended outcomes from continuing to invest in digital and data in pharmacy services over the next five years.

Digital and Data Pharmacy Strategy on a Page

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The Pharmacy Digital and Data Strategy consists of five strategic goals which are then focused on supporting delivery of six key transformation outcomes. These goals are aligned with the ICS Digital and Data Strategy goals.

VISION:
Utilise digital and data tools and services to deliver robust, safe, and efficient pharmacy services across the whole Cheshire and Merseyside system that empowers:
- Our patients with greater choice, access, and control over their medicines management
- Our pharmacy staff to be more digital and data confident and competent in their job role
- Other health and care professionals to have better access to pharmacy information and support.

OUTCOMES:
- Improved Patient Safety & Medication Management
- Increased Patient Choice & Empowerment
- Enhanced Digital Pharmacy Infrastructure & Interoperability
- A Digitally Confident & Skilled Pharmacy Workforce
- Greater System-Wide Collaboration & Efficiency
- Reduced Health Inequalities

STRATEGIC GOALS:
1. Improve Access to Medicines Information for Health and Care Professionals
2. Improve Access to Medicines Information for Patients
3. Optimise Pharmacy Data & Reporting
4. Advance Digital & Data Skills in Pharmacy Workforce
5. Drive Innovation Through Automation & AI

UNDERPINNED BY DIGITAL AND DATA INVESTMENT PRINCIPLES – 1) Deliver more patient centred, safer care; 2) Improve collaboration and integrated working; 3) Improve communication, data and intelligence sharing; 4) Ensure our workforce and services are 'future ready'

Digital and Data Investment Principles

In seeking sustainable investment for digital and data developments for Pharmacy, several underlying investment principles have been agreed to support system wide strategic development.

When we invest in Digital and Data in C&M to support Pharmacy, we do this to:

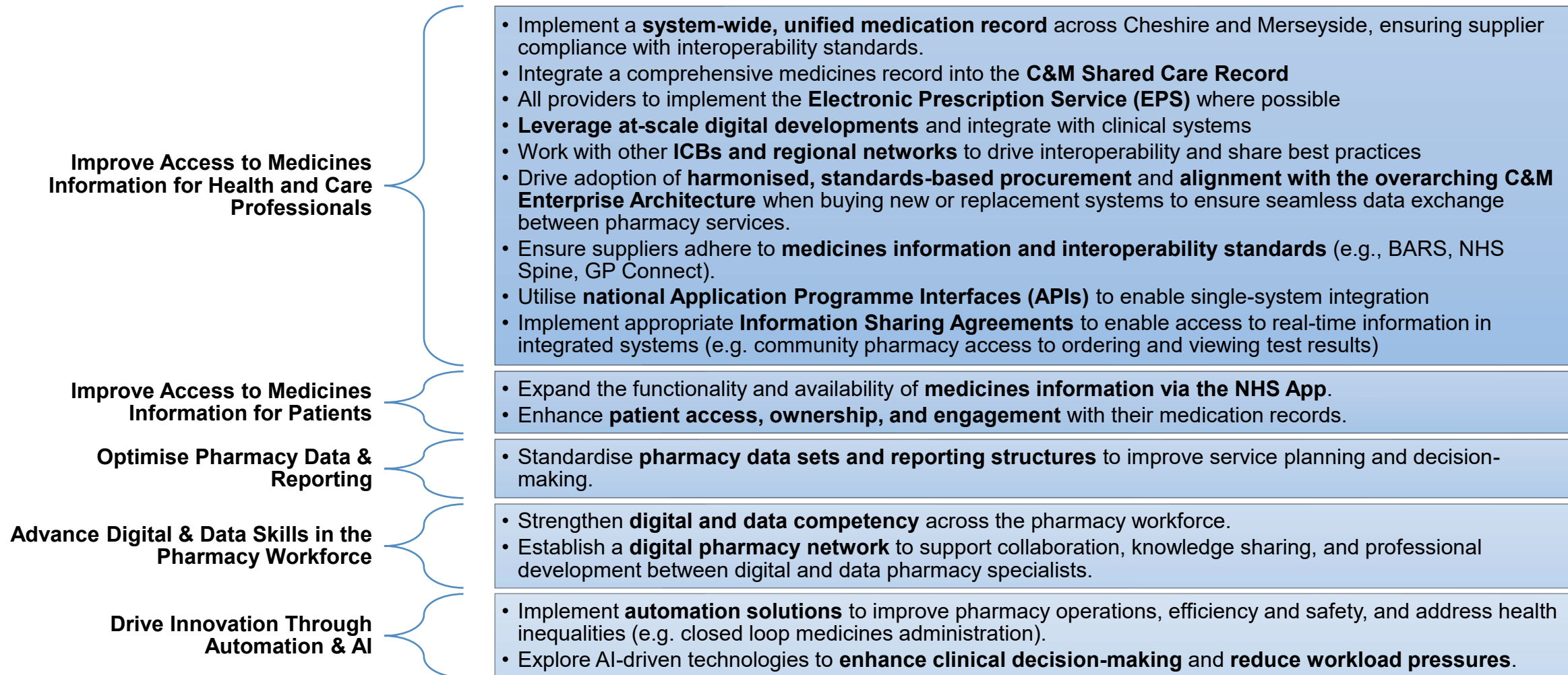| Deliver more patient centred, safer care	Improve collaboration and integrated working	Improve communication, data and intelligence sharing	Ensure our workforce and services are 'future ready'
• Improve the quality, efficiency, and safety of digital pharmaceutical care • Enhance patient access to medication information, empowering self-management • Promote medication adherence • Reduce health inequalities • Improve medicines safety, using data to understand prescribing risk	• Foster system-wide collaboration of pharmacy services within and across ICBs • Enhance joint working and sharing of information and 'lessons learnt' between pharmacy, other healthcare, and analytical teams • Foster collaboration between pharmacy services, industry, academia and other potential innovation partners	• Build on existing national and local digital pharmacy programmes and platforms • Strengthen communication and data-sharing between systems for safe and efficient transfers of care • Ensure relevant intelligence is accessible for informed decision-making to improve service quality and safety	• Leverage digital tools, AI, and data analytics to drive service planning and improvement • Support wider pharmacy workforce development in digital and data skills and expertise • Support development of digital and data pharmacy specialists • Ensure sustainability, scalability, and continuous optimisation of pharmacy services

Strategic Goals and Associated Priorities

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The five Strategic Goals are underpinned by a series of strategic priority areas which will support delivery of the strategic vision and outcomes.

GOALS

PRIORITIES

Improve Access to Medicines Information for Health and Care Professionals

- Implement a **system-wide, unified medication record** across Cheshire and Merseyside, ensuring supplier compliance with interoperability standards.
- Integrate a comprehensive medicines record into the **C&M Shared Care Record**
- All providers to implement the **Electronic Prescription Service (EPS)** where possible
- **Leverage at-scale digital developments** and integrate with clinical systems
- Work with other **ICBs and regional networks** to drive interoperability and share best practices
- Drive adoption of **harmonised, standards-based procurement** and **alignment with the overarching C&M Enterprise Architecture** when buying new or replacement systems to ensure seamless data exchange between pharmacy services.
- Ensure suppliers adhere to **medicines information and interoperability standards** (e.g., BARS, NHS Spine, GP Connect).
- Utilise **national Application Programme Interfaces (APIs)** to enable single-system integration
- Implement appropriate **Information Sharing Agreements** to enable access to real-time information in integrated systems (e.g. community pharmacy access to ordering and viewing test results)

Improve Access to Medicines Information for Patients

- Expand the functionality and availability of **medicines information via the NHS App**.
- Enhance **patient access, ownership, and engagement** with their medication records.

Optimise Pharmacy Data & Reporting

- Standardise **pharmacy data sets and reporting structures** to improve service planning and decision-making.

Advance Digital & Data Skills in the Pharmacy Workforce

- Strengthen **digital and data competency** across the pharmacy workforce.
- Establish a **digital pharmacy network** to support collaboration, knowledge sharing, and professional development between digital and data pharmacy specialists.

Drive Innovation Through Automation & AI

- Implement **automation solutions** to improve pharmacy operations, efficiency and safety, and address health inequalities (e.g. closed loop medicines administration).
- Explore AI-driven technologies to **enhance clinical decision-making** and **reduce workload pressures**.

Strategic Outcomes

The six Strategic Outcomes arising from delivery of the strategy outline what will be different by 2030 for pharmacy staff, health and care professionals, patients and health and care organisations.

1. Improved Patient Safety & Medication Management

- ✅ Healthcare professionals will have access to a **unified medication record**, reducing medication errors and improving continuity of care.
- ✅ **Safer transitions of care** between settings through better communication and data sharing.
- ✅ Enhanced **medication adherence and compliance**, reducing preventable hospital admissions.

2. Increased Patient Choice & Empowerment

- ✅ Patients will have **greater access to their medicine's information** via the NHS App, enabling them to take ownership of their healthcare.
- ✅ Digital solutions will **personalise medication management**, improving patient experience and outcomes.

3. Enhanced Digital Pharmacy Infrastructure & Interoperability

- ✅ **Seamless integration** of pharmacy systems across primary, secondary, and community care through **standards-based interoperability** (e.g., EPS, NHS Spine, GP Connect).
- ✅ Standardised **data sets and reporting**, supporting population health management and service optimisation.
- ✅ AI and automation will streamline workflows, freeing up clinical time for direct patient care.

4. A Digitally Confident & Skilled Pharmacy Workforce

- ✅ Pharmacy professionals will have enhanced **digital and data competencies**, improving service delivery and patient outcomes.
- ✅ A **digital pharmacy network** will facilitate collaboration, knowledge sharing, and innovation across the system.

5. Greater System-Wide Collaboration & Efficiency

- ✅ **Cross-system working** will improve pharmacy service consistency across ICBs and care settings.
- ✅ **Leveraging at-scale solutions** (e.g., PharmOutcomes) will **reduce duplication**, drive efficiencies, and improve patient access to pharmacy services.
- ✅ Standardised procurement and digital developments will support **cost-effective and scalable** pharmacy services.

6. Reduced Health Inequalities

- ✅ Digital pharmacy innovations will support **targeted interventions** for vulnerable populations.
- ✅ Improved data-driven decision-making will enable **proactive care models** and reduce variation in medicines access and outcomes.

Strategic Delivery Roadmap (1 of 2)

The journey to achieve the pharmacy services digital and data vision and outcomes will take some time but will be prioritised to ensure maximum positive impact on pharmacy services at pace. Detailed delivery plans (with associated targets / metrics) will be developed with patient and public input, and an annual review of priorities will take place to ensure any changes in priorities in year are reflected in the following years delivery plan. Opportunities to accelerate these timelines will be sought where possible based on availability of appropriate funding and resourcing.

Strategic Goal	Year 1	Years 2 – 3	Years 4 – 5
Improve Access to Medicines Information for Health and Care Professionals	• Baseline assessment of maturity of current systems (local and national) that could support future unified medication record • Develop key 'use cases' and core system requirements definitions for unified medication record and undertake gap analysis from existing baseline • Undertake technical scoping exercise for the unified medication record (e.g. data storage platform, data transfer / messaging structures to be used etc.) • Define 'use cases' and core requirements for comprehensive medicine record in Shared Care Record • Roll out EPS into NHS Providers where possible • Build on interoperability and integration of PharmOurcomes into EMIS	• Develop business case for investment in a unified medicine record and undertake options appraisal on preferred approach • Implement key 'use case' requirements for comprehensive medicines record in Shared Care Record solution • Complete EPS rollout into NHS Providers where possible	• Implement unified medicine record across C&M
Improve Access to Medicines Information for Patients	• Work with existing ICB programmes to support patients in maximising the use of NHS App for medicines information and prescribing.	• Investigate opportunity for secondary care trusts to integrate additional medicines info into NHS App	• Continue to add additional medicines information from different care settings into the NHS App

Strategic Delivery Roadmap (2 of 2)

Strategic Goal	Year 1	Years 2 – 3	Years 4 – 5
Optimise Pharmacy Data & Reporting	• Put in place accessible training to upskill pharmacy staff in the better use existing data to provide intelligence and actionable insight • Review existing reporting mechanisms and seek to rationalise data sets, making the overall reporting portfolio more 'fit for purpose' by being based on a set of core specifications for valuable data sets and reports	• Maximise use of CIPHA and FDP data for pharmacy service development and planning • Utilise data to address key problem areas in pharmacy services (e.g. stock holding, management of high cost low volume drugs across system)	• Further use of data and insights to reduce costs and drive service improvement
Advance Digital & Data Skills in Pharmacy Workforce	• Improve links with the regional digital pharmacy staff network and establish a C&M digital pharmacy forum to develop plans to implement this strategy • Baseline wider pharmacy workforce digital and data skills in conjunction with the North West Skills Development Network (SDN). Undertake gap analysis between current position and required future workforce skills • Promote 'induction for clinicians to digital and data' from the SDN to the wider pharmacy workforce, and build on the C&M expertise already involved in the programme. This must include clinical safety training	• Repeat workforce census on digital and data skills and measure improvements in confidence and competence • Seek investment to build a pharmacy workforce of the future, based on the digital and data skills gap analysis • Develop standardised career pathways for digital pharmacy staff • Specify minimum numbers of digital pharmacy staff needed based on digital maturity of the organisation • Develop a business case for investment in additional digital pharmacy staff roles	• Appoint digital pharmacy staff in line with minimum numbers standard • Continue to build the digital pharmacy staff network.
Drive Innovation Through Automation & AI	• Long list and prioritise the opportunities for automation and AI in pharmacy in C&M (e.g. closed loop medicines administration), working with industry, academia and innovation partners where appropriate • Investigate what other ICBs are doing around AI and automation and look for opportunities to adopt existing proven technologies	• Develop business case for adoption of highest priority AI and automation solutions • Horizon scan and review for other AI and automation opportunities • Investigate other opportunities to innovate pharmacy service delivery through digital and data (e.g. pharmacogenomics)	• Implement, optimise and derive benefit from prioritised AI and automation solutions

Key Strategic Risks

Achieving the vision and goals of this strategy has significant risks in delivery and will require leadership and management support at senior levels to maximise the opportunities for success.

RISK

MITIGATION

RISK	MITIGATION
Lack of available funding to deliver against the agreed strategic priorities	• On-going prioritisation of the strategic priorities in line with available resources • Horizon scanning and investigation of all potential funding routes • Development of Invest to save / Return on Investment business cases with a focus on financial as well as clinical benefits
Lack of converged systems and technologies across the ICS	• Implement a standardised integration engine and middleware platform in line with the wider C&M future state enterprise architecture work and associated governance • Work with other ICBs and NHSE nationally and regionally to apply pressure to suppliers to adopt relevant standards or nationally mandated solutions (e.g. EPS integration)
Competing priorities with other major digital programmes over the same timeframes e.g. major EPR programmes, LIMS etc.	• Ensure there is an appropriate pharmacy voice in those major digital programmes • Promote open dialogue around priorities and ensure appropriate governance is in place to manage any interdependencies
Lack of availability of developer resource for developing unified medicines record – other systems will want access to the same limited resource pool	• Make C&M an attractive place to work including adopting appropriate AfC banding for the roles • Share knowledge and collaborate with others who have done it before to get the best out of the limited resource
Lack of consistent approach to digital pharmacy leadership development across the system	• Ensure digital pharmacy specialist development is undertaken across the whole system including in community pharmacy • Ensure digital pharmacy staff have the right level of support and influence to drive the digitisation agenda

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Summary

This Pharmacy Digital and Data Sub-strategy has been developed to align with the overall C&M ICS Digital and Data Strategy as well as national and local policy and strategy for pharmacy service development. It is underpinned by a series of principles for digital and data investment.

- The overall vision for digital and data is to utilise digital and data tools to deliver robust, safe, and efficient pharmacy services, empowering patients, pharmacy staff, and other health professionals. Delivering this vision will lead to improved patient safety and medication management, increased patient choice and empowerment, enhanced digital pharmacy infrastructure and interoperability, a digitally confident and skilled pharmacy workforce, greater system-wide collaboration and efficiency and reduced health inequalities.

- The strategy outlines five strategic goals to deliver this vision, namely:
    - <u>Improve Access to Medicines Information for Health and Care Professionals</u>: Implement a unified medication record and integrate with other systems.
    - <u>Improve Access to Medicines Information for Patients</u>: Expand functionality and availability of medicines information via the NHS App.
    - <u>Optimise Pharmacy Data & Reporting</u>: Standardise data sets and reporting structures.
    - <u>Advance Digital & Data Skills in Pharmacy Workforce</u>: Strengthen digital and data competency across the workforce.
    - <u>Drive Innovation Through Automation & AI</u>: Implement automation solutions and explore AI-driven technologies.

- The strategy also includes a high-level strategic roadmap for delivery of the strategic priorities, and a series of key risks (and their mitigations) that will impact delivery of the roadmap.

- This strategy aims to transform pharmacy services through digital and data innovations, ensuring better patient outcomes, enhanced efficiency, and reduced health inequalities by 2030. Delivery of the strategy will significantly transform patient experience and outcomes for pharmacy staff, health and care professional and patients in Cheshire and Merseyside.