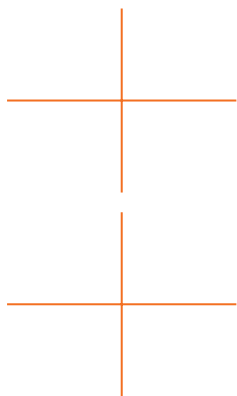


From Blueprint to Readiness: Preparing for a Single Patient Record

WHITE PAPER //
Co-authored by Orion
Health and Healthcare
Innovation Consortium



Across the NHS, the ambition of truly connected, person-centred care is widely shared. Yet the information needed to support that care still doesn't move reliably across organisations, teams and geographies. Clinicians continue to spend valuable time searching records, reconciling duplicates and recreating context that already exists elsewhere.



In our previous white paper, [A National Blueprint for the Single Patient Record](#), we set out how a federated architecture could enable authoritative, writable, real-time information to be available wherever care happens, without requiring a single national application or a disruptive system replacement programme.

This paper builds on that foundation by focusing on what comes next: what it means for the NHS to be ready to deliver that vision in practice.

Single Patient Record (SPR) readiness is not the build of a national system. It is the set of technical, clinical, operational and governance capabilities required to connect what already exists into a coherent, clinically trusted network of records. Shared Care Records (ShCRs) provide the practical foundation for this evolution, serving as the primary source of health and care data within a federated national interoperability model.

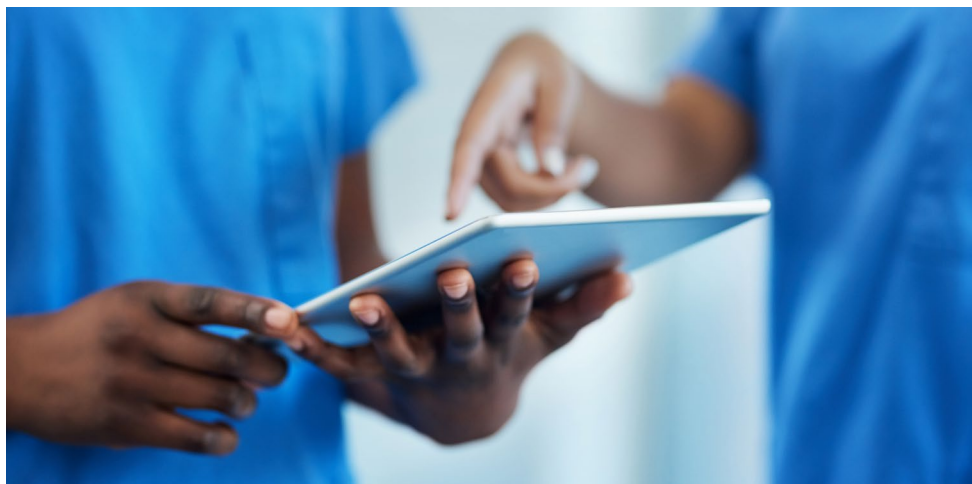
Readiness is grounded in the real operating context the NHS faces today. NHS England's current productivity plan sets out a requirement for sustained improvements of around 2% per year, with technology and digital innovation positioned as key levers for moving beyond the current productivity frontier.

A significant source of avoidable workload across healthcare is information friction, the time clinicians spend searching for records, reconciling duplicates, repeating tests and re-documenting information that already exists. Reducing this friction is one of the most direct ways digital capability can improve frontline productivity.

This paper therefore sets out, in practical terms: what SPR readiness means; how capability varies across systems; how responsibility can be shared; and how readiness can translate into measurable improvement in frontline care and system productivity.

The Blueprint defined the destination. Readiness defines the route.

Regional integration to national connection



Significant progress has already been made across the NHS in improving access to information through Electronic Patient Records (EPRs), ShCRs and national interoperability services. These investments have strengthened data sharing within organisations and across local care systems and have demonstrated the value of more connected information in improving safety, efficiency and decision-making.

The direction of travel is well established. However, important gaps remain. Information still frequently stops at organisational or regional boundaries, creating operational workarounds and limiting the ability to deliver fully coordinated, person-centred care, particularly where care crosses systems.

The concept of the SPR builds on this progress by connecting existing records into a federated architecture, enabling information to be discoverable, accessible and, where appropriate, updatable across care settings while remaining governed at source.

ShCRs already provide much of this foundation. In Integrated Care Systems (ICSs), they have demonstrated that information can be brought together across organisations to support direct care. However, their value is often strongest within ICS boundaries.

“ The concept of the SPR builds on this progress by connecting existing records into a federated architecture...”

The opportunity now is not to redefine the direction, but to extend what already works, connecting regional capability into a nationally coherent system where information can follow the person wherever care is delivered. The key difference is the move from strong regional integration to consistent national continuity, including the ability to safely share and, where appropriate, update information across organisational boundaries.

Why SPR readiness matters now

SPR readiness matters now because three system pressures converge into a single challenge: the NHS must deliver more care with constrained workforce capacity, drive sustained productivity improvements and maintain public trust.

Currently, NHS England's productivity plan sets an expectation of sustained productivity improvements of around 2% per year, with technology and digital innovation identified as key drivers in delivering this.

Operational pressure is also forcing a shift from digital "projects" to digital capabilities that make everyday work easier. One of the most persistent sources of avoidable workload is the time clinicians spend chasing information, clarifying care plans, reconciling medications, repeating tests and reconstructing context that already exists elsewhere.

Evidence from [international health information exchange programmes](#) suggests that improved information sharing can reduce duplication and associated costs, particularly in urgent and emergency care settings. However, benefits are not automatic. They depend on adoption, workflow integration and trust in the information being shared.

Without a shared framework, there is also a growing risk of fragmentation. Systems are progressing at different speeds, with variation in architecture, governance and standards adoption.

An SPR readiness framework provides a practical way to address this, creating a shared language for capability uplift, enabling prioritisation of investment and supporting coordinated progress across the NHS.



What it means to be “SPR Ready”

An ICS can be considered ready to participate in the SPR when it can operate within a federated architecture where information about a person is discoverable, accessible and, where appropriate, updatable across organisational and geographical boundaries.

This represents a shift from today’s model, where information is often visible within organisations or regions, but not reliably available across the full care pathway. SPR readiness is therefore not defined by the introduction of a new system, but by the ability of existing systems to function together as a coherent, trusted network of records.

This capability spans three interdependent domains:

Technical capability

Technical capability ensures that data can be exchanged in a timely, standards-based and reliable way. This includes alignment with open standards such as FHIR and SNOMED CT, consistent identity management and support for real-time or event-driven data exchange where clinically relevant.

It also includes the ability to contribute information back to source systems or across organisational boundaries for defined workflows. This write-back capability enables shared workflows and ensures that updates made in one part of the system can be reflected elsewhere in a controlled and auditable way.

Clinical and operational capability

Operationally, SPR readiness means the federated record is embedded into real workflows and becomes reliable enough that staff will use it without creating additional burden. This requires clinical safety management, clarity on who updates what (and when) and sustained investment in adoption and data quality so clinicians

can trust what they see, particularly for high-risk, high-frequency elements such as medications, allergies and shared care plans.

This aligns with wider experience from information-sharing programmes: value is realised when technology, processes and adoption reinforce one another.

Governance and national alignment

Governance readiness is often the rate-limiting step. It includes consistent information governance models for cross-boundary sharing, along with audit and assurance processes that build clinical confidence and align with national standards and dependent programmes.

National integration and citizen participation must be designed in from the outset, from NHS App integration to clear participation and consent

models. A Single Patient Record that does not earn public trust cannot function in practice.

In this context, readiness represents the practical uplift that enables strong local ShCR foundations to operate as SPR-capable nodes, without the disruption and risk of large-scale system replacement.

Together, these capabilities enable a system where information can be shared, trusted and acted on wherever care is delivered.

Current state of SPR readiness

Readiness is likely to vary across ICSs, as ShCR maturity, adoption, architecture, local information governance arrangements, data quality and real-time capability are not uniform. NHS England characterises ShCRs as local, geography-based solutions. That local strength is valuable, but it also explains why cross-boundary maturity varies and why national levelling-up approaches are needed.

At the point of publication, it is reasonable to assume that no ICS is fully SPR ready across all capability areas, particularly where cross-boundary contribution, consistent real-time exchange and nationally aligned assurance are concerned.

This is why a shared maturity framework is essential. It enables honest baselining, prioritised capability uplift and scalable learning, without penalising systems that are earlier in their journey.

Proposed SPR readiness framework

This SPR readiness framework provides a shared definition of what “good” looks like, allowing systems to assess maturity consistently and prioritise capability uplift.

Capability area	Level 1: Foundational	Level 2: Developing	Level 3: SPR Ready
Real-time data	Batch feeds dominate	Priority events partly real-time	Priority events real-time, monitored
Standards and APIs	Partial adoption	Core datasets aligned	Agreed profiles implemented consistently
Record discovery	Local discovery only	Limited cross-boundary discovery	Cross-boundary discovery aligned with national approach (e.g., NRL)
Contribution / write-back	Predominantly read-only	Limited contribution in defined workflows	Safe, audited contribution across settings with provenance
Identity and matching	Basic matching; manual workarounds	Improved matching; managed exceptions	Consistent approach; low error rates; clear remediation
Clinical adoption	Limited workflow integration	Priority areas adopting	Embedded in priority pathways with measurable utilisation
IG and assurance	Local agreements vary	Templates emerging	Consistent cross-boundary framework; auditable compliance
Patient experience	Organisational-specific use cases	Partial joined-up access	Joined-up access aligned to national channels (e.g., NHS App where appropriate)

Used well, the framework does more than compare regions. It supports “levelling up” by shifting investment toward reusable capability uplift (standards, discovery, contribution, workflow integration, assurance) rather than bespoke point-to-point integrations that are hard to scale and hard to assure nationally.

Pathway to SPR readiness: roles and responsibilities

SPR readiness is a shared endeavour. The fastest route to national scale depends on a clear division of responsibilities across ICSs, NHS England and delivery partners, ensuring that local effort is not duplicated and national enablement is focused where it adds the most value.

ICS responsibilities are to lead readiness locally:

Baselining maturity, prioritising capability uplift, investing in targeted improvements (for example, real-time feeds where they matter most, workflow integration and data quality) and ensuring clinical safety and

information governance processes are robust. Because ShCRs are local solutions by design, adoption and operational change must also be locally owned to succeed.

NHS England responsibilities are to provide the national enabling environment:

Setting and endorsing standards and profiles; establishing or sponsoring accreditation and assurance approaches; supporting consistent information governance guidance and patient communication; and ensuring that dependent national services align with and accelerate readiness. The National Record Locator is one

example of a national discovery capability that readiness should align to, rather than bypass. More broadly, NHS England's productivity plan highlights technology and digital innovation as key mechanisms for delivering productivity gains, reinforcing the importance of coordinated national enablement.

Delivery partner responsibilities are to implement capability uplift and evaluation support:

In a way that is standards-based, clinically safe, reusable and measurable. Early adopter programmes across ICSs demonstrate how technical delivery can be paired with evaluation and evidence generation, enabling the system to learn what works in practice and under which conditions.

The governance model should reflect that readiness is not solely technical. A joint programme structure with strong clinical and information governance representation, alongside a benefits and evaluation function, ensures delivery remains anchored to outcomes and trust, not just milestones.

From readiness to productivity

SPR readiness will improve productivity by reducing information friction in day-to-day practice. The goal is not to ask staff to “work faster”, but to remove avoidable workload created by fragmented information.

The logic is straightforward: when authorised professionals can reliably find and access the right information at the point of need, care coordination improves, duplication reduces and delays shrink. NHS England’s productivity plan sets out both the requirement for sustained improvement and the expectation that technology and digital innovation play a central role in delivering it.

Interoperability becomes a direct productivity lever when it reduces time spent on avoidable tasks such as searching for information, reconciling discrepancies, repeating investigations and re-documenting what already exists.

As previously mentioned, evidence from health information exchange research supports this direction of travel. While variable in quality, studies generally show reductions in duplicate laboratory and radiology testing and associated costs, particularly in emergency settings where cross-boundary visibility is most critical.

For a Single Patient Record, this reinforces the needs to prioritise workflows and datasets where friction is frequent, costly and measurable, such as medications, allergies, care plans and transition events. Early modelling from Orion Health and Healthcare Innovation Consortium (HIC) suggests that the potential productivity gain could be approximately 22 minutes per clinician per day, equivalent to roughly 4-5% of productive time. As with any estimate, this should be treated as a hypothesis until validated through real-world implementation and measurement.

Measuring productivity and value

Readiness programmes must be grounded in evidence. Productivity and ROI should be grounded in a clear baseline, measurable change during delivery and transparent modelling of impact. This aligns with NHS England’s recognition that measuring productivity in healthcare is complex and that timely, actionable measures are needed to understand variation and drive improvement.

A robust approach to measurement does not reduce value to a single number. Instead, it builds a credible chain from capability uplift to workflow change and measurable impact. In practice, this means focusing on a small set of indicators that matter to

clinicians and operational leaders, such as time to access critical information, duplicate investigations avoided, delays reduced at care transitions, medication reconciliation quality and utilisation and contribution patterns.

Independent validation strengthens credibility. Measurement should be treated as a core design principle, not a post-hoc justification. They should establish baselines, track key indicators, refining assumptions as real-world usage emerges and translating observed changes into a transparent model of impact that can support both local and national decision-making.

SPR readiness in practice: use cases

Use cases are well suited to early phases of delivery because they are cross-boundary, high-impact and measurable. They provide a practical way to test, refine and scale capability uplift based on evidence.

Use cases also make readiness tangible. They prevent capability from becoming abstract and help prioritise where effort should be focused first.



Use case 1: Frailty (readiness “stress test”)

Frailty pathways span urgent care, acute, community, primary care, mental health and social care, often across organisational and geographical boundaries. NHS England’s Ageing Well programme highlights the importance of identifying and proactively supporting people living with frailty, within a wider context of rising demand and increasing service use.

In this context, readiness depends on rapid access to key information such as medication lists, allergies, baseline function and shared care plans, alongside timely visibility of admissions, discharges and critical decisions.

The impact is seen in reduced time spent chasing information, fewer repeated assessments, faster step-down planning and improved coordination across teams. This also supports earlier identification of frailty indicators, enabling faster intervention and more proactive, coordinated care. These benefits can be measured through indicators such as time to access information, visibility of shared plans and reductions in duplication.



Use case 2: Cancer (pathway coordination)

Cancer pathways require reliable information flow across referral, diagnostics, multidisciplinary team (MDT) decisions, treatment and follow-up. NHS England’s cancer strategy focuses on earlier diagnosis and improved outcomes, both of which depend on timely, coordinated pathways.

Readiness in this context prioritise cross-provider visibility of key results and decisions, record discovery (including where investigations have taken place), timely updates to pathway milestones and clear provenance so that information can be trusted and acted upon.

The impact is reflected in fewer duplicate investigations, reduced time spent preparing MDTs and clinics, fewer delays caused by missing information and clearer ownership of next steps across organisations.

Early opportunities ahead of national SPR funding

SPR readiness can deliver early, measurable benefit ahead of any future national SPR funding by focusing on targeted, reusable capability uplift aligned to national priorities and services.

A practical early opportunity set includes:

- aligning discovery and access with national services such as the National Record Locator, providing a coherent cross-boundary pointer and retrieval model
- strengthening citizen-facing coherence through nationally recognised channels, including the NHS App, which should be treated as a core design principle rather than an optional add-on
- prioritising early phase delivery in high-friction pathways such as frailty and cancer, building an evidence base to support scale

“ SPR readiness is first and foremost a direct care capability, supporting information flow for clinical decision-making...”

Readiness should also complement adjacent national capability programmes. For example, the Federated Data Platform (FDP) aims to connect information across NHS organisations to improve care, streamline services and support decision-making. SPR readiness strengthens the quality and consistency of data at source and helps clarify governance boundaries between direct care and secondary uses.

SPR readiness is first and foremost a direct care capability, supporting information flow for clinical decision-making rather than analytics or secondary uses. Broader value, including alignment with initiatives such as the FDP, is unlocked as trust, governance and data quality are established.

Early opportunities should also include testing contribution pathways where appropriate, using nationally aligned mechanisms (such as structured update capabilities through GP Connect) as building blocks within a wider contribution strategy, rather than developing bespoke approaches in each region.

Conclusion



The SPR Blueprint defined the destination. Readiness makes the journey possible.

SPR readiness is the practical capability uplift that connects ShCRs and existing digital investments into a federated national network. It is not a future system waiting to be built, but a pathway to connect what already works into something coherent, clinically trusted and usable across organisational boundaries.

Done well, this means the right information is discoverable, accessible and, where appropriate, updatable wherever care happens, with the provenance, auditability and governance that clinicians and citizens can trust.

The NHS cannot continue absorbing the hidden cost of fragmented information. Time spent chasing records, repeating tests and re-documenting what already exists accumulates into delay, duplication and risk at scale.

SPR readiness addresses this directly, not by asking staff to work faster, but by removing avoidable work and making cross-boundary continuity the default.

The foundations already exist. The direction is clear. The opportunity now is to translate readiness into measurable impact at scale, improving productivity, strengthening trust and ensuring information supports care wherever it is delivered.



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