Beyond Platforms

RETHINKING DATA FOR HEALTH OUTCOMES ACROSS THE NHS

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MOZAIC

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In today's evolving healthcare landscape, data is the lifeblood that can transform patient care, operational efficiency, and public health outcomes. Yet, discussions around NHS data strategy often focus on platforms and technology choices rather than the ultimate goal of using data to improve both immediate and long-term health outcomes.

Several key initiatives are reshaping how data is integrated and utilised across the NHS: the Federated Data Platform (FDP) in NHS England, the National Data Resource (NDR) in NHS Wales, and the UK Health Security Agency's (UKHSA) modular data platform, delivered by Mozaic. Rather than viewing these approaches as competing models, NHS leaders must consider how their strengths can be leveraged together to build a resilient, data-driven healthcare system.

Federated, Centralised, Modular: A Unified Ecosystem Approach

Each of these models presents a distinct approach to health data integration, yet the real question is not which model is superior, but rather: how can these models work together at a local level to deliver better health outcomes?

Federated Data Platform (FDP): Breaking Silos, Enabling Real-Time Decisions

The FDP aims to break down data silos across NHS Trusts and Integrated Care Boards (ICBs), providing a unified platform for real-time decision-making. By improving visibility over bed management, elective recovery, and resource allocation, it has already demonstrated measurable operational gains.

However, some Trusts are struggling to meet all their needs or fully utilise the platform, leading to questions about whether alternative solutions might be more effective. Rather than positioning it as a definitive solution, the FDP should remain adaptable to evolving and additional use cases while integrating effectively within a broader ecosystem.

NHS Wales' National Data Resource (NDR): A Modular and Integrated Vision

NHS Wales has opted for an integrated data strategy that connects health and social care through a structured yet modular approach. Rather than strict centralisation, the NDR is designed to enhance interoperability within a cohesive national framework. This model ensures consistency, governance, and long-term analytics capabilities while also enabling flexible and responsive adaptation to emerging needs.

The NDR aligns closely with the principles of the Mozaic model, reinforcing the importance of a flexible data strategy that prioritises integration over rigid structures. With its five areas of work encompassing care data, analytics, API management and a Secure Data

Environment, the NDR ensures that health and social care providers can effectively leverage shared resources while maintaining the agility needed for localised innovation and specific or emerging use cases.

Mozaic's Modular Data Platform: Agility in Public Health Surveillance

In partnership with Mozaic, the UKHSA has developed a modular, scalable data platform that has transformed public health incident response by:

- Reducing incident response times from 12 weeks to just 48 hours.

- Enhancing the ability to track and respond to emerging threats, from infectious diseases such as mpox to extreme weather events.

- Streamlining data ingestion and processing through a flexible architecture that supports the rapid deployment of new data pipelines.

Rather than centralisation or federation, this model prioritises critical outcomes - an approach that could have far-reaching implications for the NHS. The challenge is whether NHS leaders are willing to embrace this level of agility across broader healthcare operations.

The Provocation: Why Are We Still Talking About Platforms?

NHS digital strategy has been criticised by some as overly focused on technology decisions rather than outcomes. Leaders must ask themselves:

- Are we investing in solving a known and fixed set of questions using data, or are we building the capability to use data to solve evolving problems at all levels?

- What if the future of NHS data isn't about individual platforms but a dynamic, integrated ecosystem that prioritises real-world impact over rigid architectures?

- How can we break free from technology-first decision-making and reorient towards problem-solving in support of the quadruple aim?

Mozaic's approach at UKHSA has demonstrated that a modular, outcomes-driven model can deliver impact at speed with demonstrable value. If this can work to address immediate public health crises, why can't it work for the NHS at large?

Recommendations: Putting Health Problems First

To move beyond platform debates and toward a more effective data strategy, NHS leaders should consider:

- **Adopting an 'Ecosystem' Mindset** – The future isn't federated vs. centralised vs. modular - it's all of them. Leaders should integrate the strengths of each model rather than forcing a one-size-fits-all approach.
- **Prioritising Adaptive Infrastructure** – Leaders should learn from UKHSA's success and invest in modular, flexible data architectures that can evolve with emerging health needs, building on the strategic platforms that have already been invested in.

- **Shifting Investment Decisions from Tech to Outcomes** – Funding models should be reoriented to prioritise using data to deliver measurable health benefits over rigid platform adoption mandates.

- **Driving Cultural Change in Digital Leadership** – Data strategy must be led by those focused on clinical impact, not just technology departments. The NHS needs leaders who can translate digital investment into tangible health improvements from data.

Conclusion: A Call to Action for NHS Leaders

If we are to succeed in more effectively using data in healthcare, leaders must break away from technology-centric debates and focus on what truly matters: gaining insightful answers to simple questions by using balanced approaches to connecting and exploiting data.

FOR MORE INFORMATION

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