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'Managed convergence' in health system digitalisation

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There have been many attempts to achieve large-scale interoperability through digitalisation of health systems, many of which have failed to realise their potential.¹ NHS England, a large publicly funded health system, has attempted national strategies at scale. Following successful initiatives to create a cohort of digitally advanced hospitals,² NHS England is now seeking to 'level up' and integrate digital capabilities across the health and social care ecosystem. It recently announced a strategy to tackle regional integration through 'managed convergence'.³ This represents a centralised approach in which regions are anticipated to converge around a particular electronic health record (EHR) system for acute hospitals. Such an approach offers a low-risk way to achieve digital maturity in acute settings quickly, with potential economies surrounding procurement and technical support. It would also facilitate local interoperability. However, interoperability problems are rooted in the history of separate procurement decisions by individual health and social care providers, resulting in a complex patchwork of systems holding information in different proprietary formats, which will only be partly mitigated by converging acute EHRs.

Convergence is not a new concept, emerging from approaches to health system reform in industrialised nations in the 1990s.⁴ It has also been used in relation to convergence of health and social care,⁵ and in promoting the alignment of different stakeholders more generally.⁶ Technological convergence has been defined as various platforms working together as a single unit to achieve integration/interoperability.^{7,8} It does not necessarily imply using the same system and using a single system does not necessarily lead to interoperability.⁹ The managed convergence strategy may also reinforce the dominance of large acute EHR suppliers and increase the risk of data lock-in.

We identify key issues that need to be urgently addressed before this managed convergence approach is implemented. First, there is a lack of clarity on to what extent the convergence is 'managed' and the organisations/structures charged with delivering convergence are still being established. This includes strategic decisions around which system(s) to converge upon and the scale of convergence. Previous failed initiatives have shown that this needs to be clear from the start, ensuring an element of local choice and input in decisionmaking building on local strategies and existing systems.¹ Otherwise, there is a risk that initiatives get abandoned or fail to scale.

Second, there are open questions around how to conceptualise 'convergence'. It is unlikely that a single product will satisfy the range of needs required for integrated patient pathways, particularly those of community and mental health, primary care, social work, social care and other agencies. In order to achieve interoperation, the priority needs to be to develop a common vision and integrated practices for shared care (aligning cultures, practices for shared care) prior to technological convergence. This may necessitate prioritising other basic functionality or information infrastructures connecting locales and promoting integrated patient pathways.

Third, there is a need to develop a sense of direction towards a future state, including considerations around how converged systems will be managed, maintained and evolve going forward, including potential adaptation for yet unknown uses. The current central mandate for digital transformation to create a digitally integrated health and care ecosystem has been put in place in advance of an adequate understanding of how this may be realised, and has also gone ahead of what the market is currently able to deliver. In this context, it has been found that increasing the entrenchment of large acute-centric EHR systems may stifle innovation.¹⁰

Despite significant potential for some regions, there is a current lack of stakeholder engagement and buy-in into the 'managed convergence' approach. In order to maximise the potential of the strategy, there is now an urgent need to take stock and address the issues outlined above. Otherwise, there is a risk that the approach will reinforce perceptions of 'top-down' management and alienate stakeholders, who may resist the adoption of systems.

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