

What can happen in a year of NHS diagnostic modernisation?

In November 2021, the government announced nearly £250 million over the course of a year to help modernise diagnostics. Jane Rendall, UK managing director at Sectra, reflects on what this will help to achieve and how imaging networks across the country are maturing.

Breaking down silos across diagnostic services has been a focus for the NHS transformation agenda for many years. But year on year rising demands, workforce challenges and pressures that have intensified with the pandemic, have now collectively placed the urgency for change into sharper focus.

The NHS Long Term Plan, published in 2019, was a relatively recent paper that highlighted the importance of progress in connecting diagnostics. The plan's goals included the formation of pathology networks by the end of 2021 and imaging networks across England by 2023.

Further recommendations emerged in Professor Sir Mike Richards' 2020 review of diagnostic services in England. In his foreword, he re-emphasised the need for "radical investment and reform of diagnostic services" that had been called for in the Long Term Plan, and suggested additional measures in response to the onset of COVID-19, which he said had "amplified the need for radical change". With a greater focus on providing more services in the community, Sir Mike's recommendations called for new models, better equipment, investment in workforce, and more money for digitisation.

Then, in November 2021, the government announced substantial investment to help to enable the change being called for. Some £248 million was put aside to be invested over a year to help the NHS digitise more, adopt the latest technology, change where and how professionals work, and increase diagnostic capacity to help deliver timely diagnoses and get patients on the right pathways more quickly.

What has been happening since?

A lot – certainly from what I have experienced. On the ground, the pace of technology procurement and adoption has been remarkable.

Though many areas are currently in pre-deployment phases, diagnostic networks and NHS consortia have been making significant regionwide digital investments, with indications that the original £248 million allocation may have already grown substantially to support the speed of digital advancement.

Digital pathology has been one of the biggest growth areas to benefit from this cash injection. Only a short time ago digital pathology was limited to early adopters, but this is fast becoming mainstream. Pathology networks and regional NHS trust consortia have turned to the technology market to provide tools needed to help facilitate the radical change being called for and to enable what many see as the largest transformation the discipline has seen in more than a hundred years.

This is about more than about swapping microscopes for digital images. It is about creating the tools for a regional workforce, optimising capacity, and creating a more attractive collaborative working environment for healthcare professionals. And it means enabling better access to scarce sub-specialists, modernising workflows and multi-disciplinary care to improve the speed of diagnosis, and laying the foundations for the introduction of artificial intelligence to complement the workforce.

A lot too has been happening beyond pathology. Though radiology has been digital in the NHS for the best part of two decades, we have seen substantial progress across imaging networks determined to break down imaging data silos that have persisted. Historic geographical, organisational and multi-disciplinary boundaries are being overcome.

Regional consortia have come together starting to realise their vision of seamless access to imaging across large geographical footprints, with significant implications for improved diagnostic services and pooling of resource beyond trust boundaries. Healthcare professionals are increasingly able to

instantaneously discover and see imaging captured anywhere across a region, without having to manually request it from other hospitals.

This is about more than radiology imaging too. Imaging networks are taking multi-ology approaches to imaging strategy, where enterprise approaches to integrated diagnostics can allow reporting and clinical decisions to take place based on a rich history of imaging from across disciplines accessed simultaneously – for example, bringing together imaging from radiology, cardiology, pathology, dermatology, ophthalmology and many other ‘ologies’ where appropriate.

What does good look like?

I continue to be impressed by our customers who have been at the forefront of modernising diagnostics at a time of immense pressure in the NHS.

As the NHS has been dealing with the pandemic, we have seen large scale technology deployments also continue to be delivered to aggressive timescales.

This work has been recognised as mission critical, work that could now form the basis for blueprints as other networks continue to transform services and assess what good looks like.

But what good looks like for the future is likely to go even further than the remarkable recent changes we have been witnessing.

An examination of highly detailed network maturity matrices that are now being looked to as a measure of progress, shows just what thriving networks are likely to achieve.

For example, imaging networks want to do more than enable radiologists to routinely report on imaging captured anywhere across their region. They are developing to routinely report on patient images that could be captured in other networks.

Pathology networks too have digital and IT maturity measures that will see whole slide imaging used to deliver pathology services across a region, and for national multi-disciplinary teams to be supported by supra-regional collaboration and reporting.

That’s just a couple of examples of the direction of travel set out in matrices developed in the NHS, examples that have been identified as measures of IT and digital maturity. But whether its enabling examples described above, or other ambitions such as embedding AI across a network, the technology is only a small component of what needs to be done.

What does the future look like?

When we reach a full year from the November 2021 funding announcement, a great many diagnostic technology investments will have been made. Many networks will be building on this to advance their maturity.

But realising the future of diagnostic transformation is not really a technology conversation. The money being injected is certainly positive, but it is only one required enabler of change.

A cloud based regional picture archiving and communication system can provide the technical means to share images seamlessly across dozens of hospitals, or for diagnostic professionals to work and report from anywhere, for example.

But creating an environment where that technology is used to enable workload balancing across a networked regional workforce, is a challenge that comes down to governance, leadership, skill-mix, and a range of factors. And it relies on the ability to collectively answer challenging questions across a multi-trust network around reimbursement models, accountability, and potentially around whether a diagnostic healthcare professional should work for a trust or a network.

Networks are starting to achieve what has been spoken about for a long time. The future is exciting. It will see a great deal of advancement to collaborative models of diagnostics, that are intelligence and data driven to achieve improved access, equity and outcomes for patient populations.

Arriving at this picture is a complex jigsaw. Different networks are likely to fill in the pieces in different ways according to their priorities. And technology is very much part of the background.