Evolution and Innovation
The Digital Future of Healthcare

Joanna Smith, Group Chief Informatics Officer at Manchester University NHS Foundation Trust (MFT), shares her views on how to translate digital innovation into outcomes that deliver lasting improvements in the provision of healthcare. Exploring the challenges and opportunities on the horizon, she discusses why a desire to be 'digital' isn't always enough to ensure success. And why digital transformation projects need to be appropriately scoped, clearly articulated and understood by all stakeholders.

Here at the Manchester University NHS Foundation Trust (MFT) we're currently implementing a new electronic patient record (EPR) system that will replace hundreds of electronic and paper-based systems currently in use across our 10 hospital sites.

But our vision goes much wider than simply introducing a new Trust-wide integrated solution that will standardize how we collect, share and access vital patient information.

Early on we recognised the EPR project represented a major opportunity to transform everything from how patients engage with us, to optimizing workflows and our operating model – for example, rethinking which hospital sites will deliver which clinical services.

In other words, the scope and scale of a transformation program begins long before you start implementing a new IT solution. Which means defining your ambitions is an absolutely critical first step, so that digital initiatives are executed with clear innovation goals in sight.

For that to happen, informatics leaders need to work closely with hospital leaders and senior executives to understand and help define the strategy vision. That includes kicking off conversations about anticipated outcomes, the barriers that will need to be overcome, what transformation will look like – and how it will affect patients and staff. And finally – what will be the lasting impact on the organization.

Rethinking data and analytics

In my experience, it's often assumed that EPR systems will serve up all the data that various stakeholders across the organization will need to gain actionable insights on everything from patient risk identification to clinical pathway development, to A&E capacity planning, predicting future admission trends or informing clinical research. But I believe the net needs to be cast much wider to include data from sources that extend far beyond the EPR domain alone.

Which is why I've recently kicked off a new data and analytics program at MFT that I hope will help address the challenge of getting the right answers to big questions. We're now looking to extend our analytics ecosystem to include datasets on weather, transport, national genomic data as well as disease and socio-economic trends – and more. All of which will provide much richer data to offer a deeper and wider understanding of population health – not only to support a more predictive approach to care, but to allow us to streamline operational and capacity planning. A win for both hospital and patients.

Delivering the digital hospital

I've already had first-hand experience of how new technologies and digital capabilities are already revolutionizing the design of new hospital spaces. Whether that's redesigning corridors, or building duplicate corridors and lifts, so that robots can deliver supplies across the campus. Or rethinking hospital spaces and operations to accommodate new care delivery models.

For example, rather than making patients move around a hospital to undertake their diagnostics journey, instead bring everything – blood tests, scans, consultants – to them in one location.

Similarly, today's digital monitoring technologies are opening up opportunities for disruptive new concepts where the design of wards and nursing stations are concerned. And, if the majority of routine follow ups are going to be undertaken remotely, then fewer consulting and waiting rooms will be needed.

Technology advancements mean the concept of health hubs – where patients undergo a highly personalized and holistic and integrated health care experience featuring integrated clinical care at one location – is becoming an achievable reality. But it's a transition that will require a major transformation of the workforce.

Bringing everyone with you

In the last few years, hospital leaders have been incredibility positive and supportive when it comes to making digital transformation happen. Similarly, clinicians are excited at how digital initiatives can transform how they work and interact with patients.

One thing is for sure, perceptions of IT, information services and informatic departments in the NHS received a positive and significant boost among front line staff during the Covid-19 crisis.

Moving forward, I believe our next key task will be arming clinicians and nursing teams with the digital skills they'll need. Only then will they be able to make best use of the technologies and platforms that will be available to them in the coming years.