



Come the digital revolution

Vodafone Centre for Health with Deloitte

vodafone business

An alliance was formed last year which might just have a profound influence on how healthcare in the UK can be improved for all with the acceleration and adoption of new technologies. Henry Carpenter speaks to some key players involved.

There is a constant flow of news regarding the NHS and the healthcare sector in general – and very little of it is positive. It would appear to be a creaking system, overburdened by insufficient resources – both human and financial – and one which is stretched to its limits in all sorts of ways, not least with waiting lists which are often several years long.

If this all sounds depressing, you could do worse than spend an hour chatting to Gus Miah, Deloitte's Risk Advisory lead partner for health in the Midlands, Danny Kelly, head of innovation at Vodafone Business UK and Vodafone Centre for Health with Deloitte, and Dr Nadine Hachach-Haram, founder and chief executive of technology platform, Proximie.

Three senior figures from three very different organisations, but all with one common aim – to improve healthcare standards, not just in the UK but in countries across the globe.

The discussion revolves around the fundamental need for the health services to embrace technology, with the key concern being 'connectivity'.

But first a potted background of why these three apparently disparate professionals are working together. This particular story really starts with Miah, a partner at Deloitte who has spearheaded the firm's creation of the Health Tech Catalyst (HTC) in the Midlands – an accelerator for the development of new, emerging health technologies and their adoption into frontline care.

Barely two years old, the catalyst has been helping health tech companies progress to the next stage of their evolution while also acting as a collaborative platform for healthcare providers, technology companies and public-sector organisations.

In autumn last year Deloitte and Vodafone announced a new global alliance - Vodafone Centre for Health with Deloitte.

This alliance will see Vodafone – which already connects more than 20 million healthcare devices globally through IoT and 5G to the healthcare sector – connect with Deloitte's professionals working on the rapid adoption of cutting-edge digital solutions to support the digitalisation of hospitals, telemedicine, virtual medical consultations, and remote solutions.



It is a natural, collaborative fit to bring together the centre and the catalyst's innovators and clients to connect mobile solutions and new technologies with 5G to deliver solutions at scale.

"The pandemic not only highlighted the importance of connectivity to deliver critical healthcare services, but also a need for new technologies. It is imperative we do not lose the momentum of the past two years and connectivity plays a huge role in driving change at pace in the sector," explains Miah.

"Vodafone has exactly the same philosophy as us in terms of supporting the digitisation of the healthcare system and to really act as a disruptor to help redesign healthcare pathways going forward.

"With our philosophies aligned, there was a great synergy to go into that marketplace together.

"What we're doing is creating an ecosystem of market-leading players, an effective consortium to really disrupt the healthcare system."

All three are in agreement – the starting point has to be improved connectivity.

As Miah points out, why is it that in many hospitals you can't get a good mobile reception, if one at all, whereas in the corporate world, connectivity and communication are seen as vital to transacting business?

But now, with the rollout of 5G, the opportunities for fully integrated, working connectivity are that much greater. This is very much Kelly's domain, and while he admits it isn't the sole answer to the connectivity conundrum, it is a catalyst to start the conversation in addressing this age-old industry challenge.

"The reality is 5G is fundamentally different from the other Gs," he explains.

"It is a massive enabler for the adoption of new applications and technology.

"The pandemic brought a huge shift in terms of the way the community accessed healthcare, with GPs moving into virtual consultation, for example.

"Patients now expect virtual consultations and we are seeing a change in the appetite for adoption of technology driven



Gus Miah



by the pandemic. This acceleration of change is driven by patients as they want to be served better in the community.

"5G brings with it technologies like AI, robotics and augmented reality, but before we get into talking about those futuristic technologies, we must start with the basics. Let's get a mobile phone signal going in the hospital."

Proximie is precisely the sort of tech company that the HTC and Vodafone Centre for Health with Deloitte have been keen to work with, one which illustrates the benefits of digital health perfectly.

In short, it is a tech platform which allows multiple people in remote locations to virtually interact in a way which mimics what they would experience if they were collaborating in the same operating room.

And this means they can physically show each other where to make an incision in real time, for example, or use physical gestures to illustrate a technique.

Every Proximie assisted procedure can also be recorded, analysed and leveraged for future use via the company's video library, and therefore used to help inform how physicians both apply and learn their skills.

Dr Hachach-Haram is a practising surgeon, as well as the figurehead at Proximie, and the reason she has started

working with the alliance is to help achieve the right connectivity in order to enable various technologies to transform healthcare delivery.

"Our vision has always been to impact the delivery of surgical procedures, but we can't do this alone. To deliver at scale, we really needed an ecosystem to come together to solve this pretty complex challenge we faced in surgical care.

"You only need to look at the news to see everything that's happening around the surgical backlog, around resources, people burnout and time to train staff. This is a fundamental challenge.

"The partnership for us with the Vodafone Centre for Health with Deloitte and the HTC has really helped us address those challenges by combining Proximie's class-leading digital surgery solution, Vodafone's connectivity services, and Deloitte's expertise around change management and digital transformation in healthcare.

"At the heart of it all it's a people challenge, how to get people to adapt to new ways of working – and how do we repeat and scale what we are doing across the NHS.

"As someone who is a practising surgeon facing these challenges, it now means we can actually start to bring that private-public partnership together to create real impact for our patients."

The benefits that the adoption of new technologies will have on the health service goes far beyond the operating theatres.

The increased productivity through the use of digital health is expected to dramatically enhance both staff and patient experiences and address the un-met needs in demand for the service.

Miah identified three key objectives for Vodafone Centre for Health with Deloitte which are high on the agenda to tackle.

The first is demand management, in particular preventing inappropriate referrals which absorb a huge amount of time. Then there is elective care – how the NHS can be supported in addressing the several-years-long backlog through technology and innovation.

The third area is how to support the remote monitoring of those patients outside the hospital. "The NHS hasn't really been redesigned since its creation," says Miah.

"Can this vital service be delivered in a very different way? There are some fantastic technologies that can provide healthcare professionals with more efficient ways to diagnose, treat and support patients, but not the infrastructure yet in terms of the connectivity."

To emphasise the tech capabilities used by Proximie to positively influence a clinical outcome, Dr Hachach-Haram uses the example of bowel polyp identification whereby an AI algorithm could be introduced to help with decision making over which polyps look normal and which look abnormal.

As she says: "You are starting to connect the dots and unlock value for all stakeholders. Another case in point is that we were able to partner with a big NHS trust recently and do a month's worth of operating in a day.



Danny Kelly

"We also had a particular case where a patient needed an interventional cardiovascular procedure, but due to Covid the expert couldn't fly in to help the local team to do it.

"We were able to actually connect those experts together virtually and they were able to ensure an important cancer procedure could continue despite the emerging threat at the time of the Omicron variant."

On a more macro scale, she says Proximie has a quadruple aim: improving staff experience, improving system efficiency, meeting recovery targets, and connecting people to deliver care closer to patients' homes where it is needed and doing it efficiently.

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"It is about improving patient outcomes, and also the patient experience of care. Does a patient have to travel for hours to another town to get the surgery they need? Or can they have surgery close to home and to their support network with virtual collaboration as well?"

Kelly adds to this point that a lot of this work needs to take place beyond the walls of the hospital, not least in improving the connection between GPs and specialists, suggesting that the process needs to be much slicker to help speed up patient outcomes.

"It's about improving staff morale in terms of how they operate both in the hospital and in the community.



"The internet of things will effectively be a big driver in how we support the community – with the use of predictive analytics, for example.

"What we are seeing across the health sector is lots of really good examples of how technology can help but it's very small scale and it is taking a long time.

"Fundamentally we do believe it will improve productivity and save costs, at the same time giving our patients better clinical outcomes. And ultimately that's what our pursuit is – achieving better clinical outcomes for the patient."



The three interviewees speak with sense, logic and the optimism – and the arguments they make about the need to adopt technologies for the good of healthcare are hard to dispute.

So how close are we to a bright new dawn where we will be able to look back at what would seem an antiquated, cost-inefficient and cumbersome health service? Are we talking any time soon or is this still pie in the sky?

Miah points out that the change must come from within, and in that regard we can be optimistic.

"Clinicians have been fairly dogmatic about the way they do things, but they've been the biggest adopters," he says. "They're hungry for change because they can see more patients and spend more time with them if they're not doing admin.

"Prior to the pandemic I would have said you were looking at about 15 years before tech adoption, but many of these technologies have been accelerated by the pandemic, we just need to maintain that momentum."

There is always the question as to why there is a slow uptake on investing in the connectivity, but the answer almost inevitably, is funding.

As Kelly says though, the business case starts to stack up when the health service is confronted with the issues which Dr Hachach-Haram listed.

"Connectivity can fix some of these really fundamentally basic challenges and we are not talking about just 5G," says Kelly.

"Let's have the conversation and begin to address those basic challenges, starting with about 70% of all hospital trusts that are still, in effect, analogue and not digital.

"Then let's look at what the likes of Proximie can do in really transforming and digitising those hospital operations and focus on the operational efficiencies that we can deliver into the hospitals.

"It does require a greater digital investment and once we do that, the benefits are absolutely endless."