TECH REIMAGINED
AN ENDAVA PODCAST

Healthcare in a Post-Pandemic Reality

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Bradley Howard: Hello, and welcome back to Tech Reimagined. I'm Bradley Howard, and I'm glad to welcome you to the latest episode of our show. We're now running into season three in which we explore how technology is influencing the very fabric of our society. How we live, the way we work and how we do business? Follow us on your favorite podcast platform of choice to learn more from our insightful guests. And speaking of insightful guests, it's a true pleasure for me today to introduce you to Dr. Gillian Halley, who might have had the opportunity to listen to on various occasions and have always learned something new from. Dr. Gillian is a dedicated healthcare professional with over 20 years experience as a medical consultant in frontline healthcare delivery, five years as service director, an extensive experience and knowledge of navigating healthcare strategy regulations and commissioning from both a vendor and ER perspective.
She's an NHS innovator with a track record of enabling transformational change through digital health technology and its successful bids for innovation funding from the NHS, Innovate UK and SIBG. We're so glad to welcome her expertise on various digital healthcare technology initiatives across Endava as well.
So welcome Gillian, really glad that you could join us today. Can you share with us what you've been up to lately?

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Gillian Halley: Hi, Bradley, and thanks for the invite. It's good to see you again. What I've been up to lately is I've been doing some work with Endeva and developing an industry education program for the development units, which has been quite good fun for me. And I've been keeping an eye on what's developing in health tech obviously, and also just taking time to enjoy the countryside and slow down a little bit and read a bit more, be a bit more creative.

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Bradley Howard: Well, that's lovely. You're based in Glasgow, aren't you?

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Gillian Halley: So I'm in nearshore. A little bit outside Glasgow, yeah.

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Bradley Howard: I'm sure you get to enjoy some lovely countryside around that.

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Gillian Halley: Yes. Lots of bird singing.

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Bradley Howard: So today's episode is going to be about healthcare in a post pandemic reality. So while in the beginning, the pandemic brought a lot of doom and gloom. We've also seen some good sides like society joining forces for a greater good, and healthcare professionals demonstrating their potential for rapid mobilization of research and clinical resources, home testing and remote monitoring. Now, after some of the dust has settled, let's take a look at where we are now and where we're heading. So Gillian, what is it like for doctors from the healthcare professional point of view? Where are you now in the post pandemic context?

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Gillian Halley: Well, obviously there's been a lot of change for everyone in the population with COVID. A lot of learning and a lot of change in the way things are done and also in patient expectations. So, the biggest change, I think that's been visible to everyone, one of the biggest changes has been the way that GP consultations have changed. So a family doctor would... Less than 5% or fewer than 5% of a family doctor consultations pre pandemic were remote. So face- to- face was the normal root of connection. And that puts a lot of stress on doctors with short five- minute appointments. It gets difficult to get into a medical story or a patient story and help them with every problem. So that had its own stresses, but there was a reluctance to change from that model into remote consultation, then it's interesting to always look back and say, " Why was that? Was it funding, lack of funding? Or was it a lack of willingness to change? Is it a culture barrier or fear of the unknown?"

So there's a lot of lessons we can look back and say, " Well, doesn't it look really obvious that patients would want to connect to their GP with text messages or online chats or by telephone?" And I think it just shows you that it's that necessity is a mother of inventions that have old cliche, but it really did take an external factor to move people into making that change. And I think in medicine, as in lots of other areas of life, there's a pendulum swings from nobody's doing it at all to everybody's doing it. And eventually, I think it will settle somewhere in the middle where there's a blended approach to providing remote consultations and face- to- face, hopefully, to tackle some of the post pandemic problems and waiting lists and cancer investigations that the doctors are now dealing with. So, I think for the medical profession, it's been an eye opener about what technology can do. And also that there's been a drive to support doctors in working differently that wasn't there before. And the funding that goes along with that, obviously. So that's been the major change, I think.

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Bradley Howard: So on the subject of funding, so considering all the lessons that we've learned from the past couple of years, which areas of health tech and healthcare do you think that more resources should be allocated to? And what kind of resources as well?

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Gillian Halley: Yeah, well, I think when, when you look pre pandemic at the comparison of the healthcare sector with other industries, banking, retail, hospitality, the lack of technology is quite astounding. And I always try to work out why that's the case. As always, there's multiple factors but funding is definitely one of them and I think it's the way that things were funded. So with technology and other industries, I think there's an expectation that you have to wait to get the full benefits, whereas in health, in my experience, things were quite often managed on a year by year basis. So working to a budget, working to a short term outcome, and I think there's been a lot of waste in not looking far enough into the future to see how will technology actually get benefits and how do you measure that benefit?

So quite often I find that people in commissioning work really hard, they're often doing more than one job at a time and it's very reactive. So I think the major change in funding would be to have maybe an opportunity to take a step back and bring in some support from other industries, other experience, maybe strategic approaches to investing in technology for the long term and also using what medicine does well, which is research. So how do we research that benefit, the business benefit of technology, the workforce benefits and the downside? So using realist methods. So doing a bit more around

implementation and thinking of the long term end to end impact on the patient's clinical pathway, on how the workforce works. And I think that strategic support hasn't always been there and it's also important to give clinicians, not just doctors, but the nurses, the physios, and everyone in the system to have space to think and actually say, " Well, we're going to invest in this technology, but let's look in detail about how we operate."
So how can our operations be improved in the process of clinical care? What workarounds do we do that we need to take into account? What legacy systems can we use as an opportunity, this change to get rid of those? How do we support a workforce that's really fatigued, has a lot of change, fatigue, lot of post COVID fatigue? How do we support that workforce to have the space to capacity to change? So I think the funding is more than just money for tech. It's about supporting, investing in the workforce and supporting, joining things up, the interoperability that makes it easier for clinicians to talk to each other or to share data and communicate not just with the patients, but with each other. So I think we really need to take this opportunity to just take a step back and say like, " Let's look at the system as an ecosystem."
And as a patient journeys, as they go through the system, how do we improve those points of information transfer? How do we make handovers, digital? Simple things like that? How do we make systems talk to each other? And also how do we measure what we're doing and make sure that we get rid of the old staff? Because the NHS and other healthcare is very good at layering lots of new staff onto old staff. But There are systems still in place in hospitals that are decades old, it's really difficult to get rid of them. So the investment has to look at that whole system and say, " Right, how do we get rid of these deal with the legacy systems? How do we make things interoperable? How do we support the workforce?"

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Bradley Howard: And has there been a lot more funding from the private sector during our COVID experience?

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Gillian Halley: Well, I think the biggest thing from the private sector, the vaccinations is a good example of the investments that was needed to get something done quickly. That pharma perhaps having traditionally been the bad guys. It just showed that collaboration, if you get the funding upfront funding to kickstart something and you have a bit of faith in it and the scientists are all working together and there's international collaboration, which there was with the mapping the virus, the variance and the collection of data. Then I think that's an opportunity. That's a way of working as a collaborative exercise to benefit the patients.

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Bradley Howard: So GPs or for our international listeners, family doctors, their behavior has changed significantly during the pandemic, as you outlined by having remote consultations and now more of a hybrid approach. Has there been any downsides in which COVID has influenced the profession and what solutions can be taken to counteract that?

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Gillian Halley: Yeah. So I said there were stresses with family doctors always because of the workload.

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Bradley Howard: It's on pre pandemic or...

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Gillian Halley: Pre pandemic. As I mentioned that if you're doing a lot of five- minute face-to- face consultations and there's a lot of continuing profession development, a lot of paperwork, a lot of results to look through, a lot of referrals to make that's got its own stresses. So has the change to remote monitoring reduced that stress or just moved it somewhere else? So for example, with remote monitoring, as a doctor, one of your biggest worries is will I miss something? So will I miss something and the patient will come to harm? And that's a constant stress. I think people don't really realize that's always there in the back of your mind. And with remote consultations, you're removing a little bit of the art of medicine where you have the soft signs, some... there's pattern recognition that you develop as a doctor, which is about interpreting body language or what's not said, and looking at context and looking at people over a period of time. And if you've got telephone consultations or remote consultations, for some patients, you will lose something.

And so, there has been an uptick in the number of antibiotics or the number of drugs prescribed by doctors, and I think that's probably a reflection on the nervousness of family doctors, where they're not able to say, " Oh, come back tomorrow." It's not so easy. Or they can't see them face- to- face. And on the hospital side, there's been more an uptake in the... A reduction in the number of patients that are discharged, because again it's like, " Do you have confidence in that decision?" So there's bound to be side effects and risks of any new technology that's put into a clinical setting. So I think it's really important to be aware of what those might be and to continue to measure things that like drug prescribing, referral patterns, talk to the profession and find out what, where the stresses are now?

So my niece is a GP and she said that 70% of her consultations are now online chats, and that's a huge change that five years ago, we just wouldn't have thought would happen at that scale. And I think for a lot of young people, that's a great way to communicate. I know my kids don't like to talk to anyone if they can text or do other communication digitally. So I think that's a great opportunity, but I do worry about the slightly more disenfranchised groups of people where that's not going to necessarily work for them. So, we have to just get that balance of making sure that we don't disadvantage or create more health inequalities through digitization, that we always try and bring people on board, and that again, that takes investment in making sure that there's the elderly or the asylum seekers are the homeless. So the people with chronic health needs or disability do have access.

And one of the downsides, I guess, of the pandemic that you've no doubt heard about is the increase in the patient's waiting for cancer referrals for diagnosis. And I think that's one area that we should really invest in with perhaps an area for artificial intelligence to optimize that process of detecting who needs to be seen more quickly. That information is with the patients, so how do we kind of collate that and make sure that we can actually maximize the chance of patients getting the right treatment in the right place at the right time, and some of the mobile units of shopping centers with scanners and all that thing is one way to go towards it bring it closer to the patient, pharmacists allowing to refer for cancer diagnosis, but the UK is certainly behind a lot of other countries in the survival for things like lung cancer, where the symptoms are quite late and it's a hidden disease.
So I think we need to really take care of those people that have not been seen in the way that they would've been pre- pandemic and try and put a lot of effort into improving that.

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Bradley Howard: Yup, I guess, to play devil's advocate on that. We don't always want the people with the most severe illness is always at the front of the queue. And there's a massive long tail of people who mentally might find their condition, although it's not a massive priority on the grand scheme of things, but it might be debilitating for them.

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Gillian Halley: Yeah. I think that's the mental health issues of long COVID. That's one big problem. So it's not that we should be disinvesting in any particular groups, but I think there is a priority when it comes to mortality. There is a big difference between mortality and morbidity. So if you can save a life and give people longer quality of life years, then I think that to me is a priority that you have to address of urgently because there's a time factor. And for some more chronic illnesses or mental health conditions, there's definitely a need for investment in those and to support people because that getting people back to work, getting people with the right social support, social care and mental health support is really important as well for the population as a whole.

It's about triage, I think. Really like with you go to accident emergency, you get triage to say, " Okay, have you chopped your arm off? So you need to be seen now, because you're losing a lot of blood or have you had a road traffic accident?" People understand that you have to triage in that way, and then if you have a minor injury that this is where time comes into it, that you could... you need treatment, but it could take, it could be over a period of days, weeks, months versus something that needs to be done right now. And that's speaking as an ICU doctor, I'm very focused on those priorities of life over death, I guess.

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Bradley Howard: So now let's try and switch perspective and look at COVID's impact from the patient's perspective. So the pandemic has certainly made most of us a bit more aware of our own health and scared us into valuing more minor healthcare issues and addressing them swiftly while it's also being more aware about healthcare prevention. So, do you think this is enough to foster and maintain a long term more preventative mindset?

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Gillian Halley: Is it enough? I think it's the key there. Is it enough and is it long term? So those are the two things. Amazing how quickly people forget, isn't it? One day you're wearing masks into every shop and the next day you're not, and you're back in the theaters and traveling in public transport. So I think it's easy to not keep a focus on those things, but I think what the pandemic has helped to do is to show people one is the art of the possible. So yes, I can talk to my GP over the phone. I can do remote consultations. I can monitor my health at home. I am more aware of the apps that I can use the importance of controlling diabetes, of diet, of exercise, et cetera. So I think that certainly brought that more to the four, which this system needs to capitalize on to help people to continue to do those good things.

The art of the possible in the tech is also about mass vaccinations and how quickly the vaccine was developed and how safe it was and how easy it was to actually can get that

communication directly. I know the COVID app had a few technical issues and I have my own thoughts on some of that, about how things are developed. But certainly just having a whole population able to access something on their phone is a big change and say, " Well, if I can do that. If I can get that information on my phone, can I get more, and how can that help me more?" when you look back at the pestilence and plagues of the past, it's always worth looking back. And the bubonic plague, there was lots of public health measures in place then for quarantine isolation, even though people didn't understand the disease process. So I think we're relearning lessons from the past as well.

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Bradley Howard: And can I ask what your professional opinion is of health tracking watches and other devices? I've got my wearable, my garment, which can track my sleep, oxygen levels, heart rate, the list goes on. What was your professional opinion on those?

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Gillian Halley: Yeah. Well, they're different groups, there's people that are well that want to be healthy or stay healthy or prevent disease. And there's people who are worried well, and there's people who have got some specific illness, could be an acute illness or a long term illness. So I think there's huge potential, we've maybe not realized it yet, but there's... I think one of the first ever algorithm that was approved by the FDA in America was in 2014, for an algorithm that could capture atrial fibrillation, which is a specific wave form in your heart rate that has got serious consequences if you don't treat it, but it's easily treated.

So you've got that and I think that's part of the Apple watch reviews. But if you've got a population of 100 people... or a 100,000 people, and one of them has got ends up with a condition, your denominator is so huge, it's difficult to measure the benefits. So I think the evidence base is difficult to capture with wearables. So I think you almost have to look like, " Is it a public health measure? Is it a way we can educate and support people to stay healthy? Or are we able to move towards an algorithm that can, which is happening now prevent or identify that you have symptoms of COVID before you know, or identify that you have a risk of heart disease?" There are some predictors and potentially preventative opportunities in those wearables.

So I think we're just at the beginning of that when it comes to actually what you're going to do with the data, it's a whole other issues. So, if you're collecting all this data and you're one of that groups that's so worried well, is that going to increase your anxiety or is it going to decrease your anxiety? So what's the expectation for the patient around what they do with that or what the medical profession does for that information? I'm sure there's lots of people go to their doctor with their blood pressure readings or heart rate. That's a lot of noise and it's an artifact. And then, you're expecting something from that data and you're not always going to get it because the doctor might not and consider that as part of their consultation.

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Bradley Howard: Yeah. My view on that is that I wish some of that data was collated and actually shared with a GP for when I might visit them so that they can see how my... what the trends look like, whether it's weight or heart rate and another variables, so that they can say, " Actually, I have seen a bit of a spike recently. You might not have noticed it because you're not a healthcare professional, Bradley." So this is what that might mean in conjunction with your symptoms. It feels a bit strange that my GP surgery has a machine on the ground floor, which weighs me, tests my heart rate and blood pressure, et cetera, yet I've got 24- hour, seven days a week recordings that on my watch recently.

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Gillian Halley: You're a digital native. It's about sort of empowering people like yourself to actually demand more. So, I think the data can empower patients because they've not really had access to that data. So if you can empower people by saying, " Look, I've got this information, I want it to be used." How do we facilitate a community of users like that with that shared purpose to actually demand the change? So I'm sure there's a lot of analytics that could help family doctors, but again, the workforce is very fatigued and they don't have the capacity to change. So, maybe it's up to people like yourself that can actually drive that change.

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Bradley Howard: That's a really good point. And thank you so much, Gillian, for sharing some of your expertise with us. To all of our listeners, I hope you enjoyed this episode so much that you'll share some love with us by sharing it with your friends and colleagues. Until next time. I'm Bradley Howard, and this has been Tech Reimagined.