

Health and Social Care Committee

Oral evidence: Digital transformation in the NHS, HC 223

Wednesday 11 January 2023

Ordered by the House of Commons to be published on 11 January 2023.

[Watch the meeting](#)

Members present: Steve Brine (Chair); Lucy Allan; Paul Blomfield; Paul Bristow; Dr Caroline Johnson; Rachael Maskell; James Morris; Taiwo Owatemi.

Questions 65 - 111

Witnesses

[I](#): Simon Bolton, Interim Chief Executive, NHS Digital; Jackie Gray, Executive Director for Privacy, Transparency, Ethics and Legal, NHS Digital; Dr Tim Ferris, National Director of Transformation, NHS England; and Kathy Hall, Director for Digital Transformation and Head of the Joint DHSC/NHSE Digital Policy Unit, NHS England.

[II](#): Chris Askew, Chief Executive, Diabetes UK; David Ramsden, Chief Executive, Cystic Fibrosis Trust; and Liz Ashall-Payne, Chief Executive, ORCHA (Organisation for the Review of Care and Health Apps).



Examination of witnesses

Witnesses: Simon Bolton, Jackie Gray, Dr Tim Ferris and Kathy Hall.

Q65 Chair: Happy new year. This is the ongoing inquiry that the Health and Social Care Committee is holding into digital transformation in the NHS. The health service is possibly one of the most important subjects around at the moment. This subject is very interesting and there is a lot of interest in it.

Today, we have a glittering array of stars, in two panels. Later, we will hear from the Cystic Fibrosis Trust, Diabetes UK and ORCHA. We will introduce those speakers later.

On our first panel, we have Simon Bolton, the interim chief executive of NHS Digital, and Jackie Gray, the executive director for privacy, transparency, ethics and legal at NHS Digital. Welcome. Appearing virtually, we have Dr Tim Ferris, the national director of transformation at NHS England. Good morning to you, Dr Ferris. We also have Kathy Hall, the director for digital transformation and head of the joint Department of Health and Social Care and NHS England digital policy unit at NHS England—I bet you can't fit that on a business card. Welcome.

Let us start with those who are in the room with us. Simon, where did it all go wrong—or right—with NHS Digital? Is Matt Hancock's flight of fancy around NHS Digital now over?

Simon Bolton: Actually, I think that an awful lot went right. If I look at some of the achievements of NHS Digital and its predecessor organisation, HSCIC, in the last 10 years, there is a huge amount of value that we have delivered to the health service in many different respects. I absolutely would not see it as a flight of fancy.

We do some very important things that directly impact patient care and improve working conditions for clinicians. They vary from making sure that we provide data on patients to clinicians at the point of care to, prior to the pandemic, deploying Microsoft 365, which enables the whole of the NHS to work together. In fact, we run the second biggest Microsoft 365 tenant in the world. We do some pretty substantial and impressive things for the health service.

Q66 Chair: What has gone well and what has not gone so well with having the digital arm as a separate organisation?

Simon Bolton: A number of things have been useful in having an organisation called NHS Digital. Being able to create almost a technology brand around some of the technology activities in the NHS has been really good for encouraging inbound talent, making a statement that technology and digital are massively important for the transformation of the NHS and having a high degree of focus on some of the technology solutions that we have been able to develop. Those things have gone really well.



HOUSE OF COMMONS

I have been at NHS Digital for only about 18 months. When I joined the year before last, one of the things that was very clear to me was that, while having the brand of NHS Digital was very helpful, we had a number of entities at the centre of the NHS that were all talking about technology in a way that was not necessarily very well joined up. We had NHSX, NHS Digital, NHS England and other entities. There is a huge opportunity to bring those groups together in the new NHS England so that we can start to create some coherent leadership around technology for the whole of the NHS. That will enable us to communicate better than we have done in the past, perhaps, around improvements that we need to make.

Q67 Chair: Can you explain to the viewers—and even to us—the difference between NHSX and NHS Digital? X has already been absorbed into Borg—NHS England. How do you define the difference?

Simon Bolton: NHS Digital is there primarily to run services that support the NHS—as I said before, things like making sure that we have data in the right place to enable us to deliver patient care.

NHSX's role was somewhat different. It was about providing finances directly to trusts, for example, to encourage innovation, which was not in our remit, about making sure that we had the right policy in place to drive technology forward across the NHS and about doing some central innovation. The roles were quite different.

One thing that is not well understood is that the core role of what we do at Digital is to provide service and to make sure that we help to run the NHS and help with patient care.

Q68 Chair: Dr Ferris, given all of the pressures on the system right now, you could watch this session and think that the Health and Social Care Committee has gone off down a rabbit hole and is discussing digital transformation while Rome burns. Actually, this is a central issue to the future—dare I say it—long-term plan of the NHS. How will you ensure that digital remains central, given all the other pressures NHS England is dealing with in the now?

Dr Ferris: That is a terrific question. The importance of your statement cannot be overstated. The use of technology and data is central. I use those two words separately advisedly, because they bring separate and important differences to the current pressures.

You asked about making sure that it is centrally located and part of the thinking related to everything that we do. To my mind, that is best done through governance and process. Having the director of transformation and the CIO, Simon Bolton, who are in front of you, report into the executive team and the board of NHS England is one direct manifestation of exactly what you stated—bringing tech and data centrally to all the thinking. That means that we are in the room during all discussions about our responses to pressures and are bringing the tech and data to those discussions in a way that did not exist previously.



HOUSE OF COMMONS

That is just one manifestation of the benefit of the organisational changes that the Secretary of State asked us to do just over a year ago.

- Q69 **Chair:** That is the organisational bit. Finally, I have a question about the NHS app. Let us face it—most people downloaded the app because it showed your covid status and gave you a covid passport. How do you capitalise now on that to make it do something patient focused? Can you tell us about the road map for the NHS app through to 2025? What can we expect it to do in the next three months, six months and 12 months that it does not do now?

Dr Ferris: That is a terrific question. The app itself has many of the capabilities that it needs to have. Literally millions of citizens use the app to view their records, to make appointments and to renew their prescriptions—just three of the multiple functions. The issue is extending those services. Millions of people have them today, but we need everyone to have access to those services through digital means. The app is just one manifestation of those digital means. That is a benefit that occurs when the systems of local providers are flowing data into the app so that every citizen can make use of it.

You asked about the next three months. Very specifically, literally hundreds of GP practices have signed up to flow their data into the app over the next several months. That is just one example of something that is occurring in real time—more people getting access to their records through the app.

- Q70 **Chair:** I will be able to read my record, although whether that is in a patient-friendly format or not is another matter. What other services do you expect to add to the app over the coming 12 months?

Dr Ferris: As I said, the app includes prescription renewal, making appointments and viewing records. There is also navigation. Navigation means helping any citizen to make decisions about where they need to go for resolution of a particular problem. It is information about the next point of contact that you should consider, given your symptoms, for example.

There is also information related to the waiting list. If you are waiting for an elective procedure, getting information about your position on the waiting list is part of the pathway for rolling out. We have already rolled out some elements of that.

Those are two additional things. I am happy to send to the Committee the full list for the pathway roll-out. It is quite a long and detailed summary.

- Q71 **Chair:** You are telling me that if I am waiting for an orthopaedic operation, the app will show me, “You are No. 672 in the queue.” Is that what it will show me?



HOUSE OF COMMONS

Dr Ferris: Not that precisely, because there are multiple factors that come into where people land in the queue. We already have average waiting times for a particular procedure. Getting more precision about that and providing information on whether there are options for alternatives is part of the pathway for the app.

Q72 **Chair:** What I am getting at is this: the NHS is under huge pressure. There is pressure at the front door. There is pressure at the back door. Is that your thinking, your focus and what you get up to do every day? Can we expect from this merger that you will be focused on how this helps patients to get information that stops them presenting at the front door—primary care—or the other front door: emergency departments?

Dr Ferris: That is precisely correct, Mr Chairman.

Q73 **Chair:** That is what you get up to do every day. That is your mission.

Dr Ferris: It is.

Chair: That is your Borg. Excellent.

Q74 **Taiwo Owatemi:** I thank the members of the panel so much. I want to come back on the topic of the NHS app and how we can fully utilise it so that patients can gain the best from it.

As you said, the app is great for ordering repeat prescriptions and seeing your blood test results. As you outlined earlier, there are variations, in that the GP practice that you attend determines just how much you are able to view on the app. What I am trying to understand is whether there are any steps to include secondary data by making hospital blood results, for example, part of the NHS app, so that patients can see all their medical records. I know that you said to the Chair that the aim is to improve patients' outcomes from using the app, but I am trying to understand how.

Dr Ferris: That is a great question—or two questions, actually. Let me take them in order. First, we absolutely are working to integrate primary and secondary care. There are plenty of examples around the country. Many citizens in London already have a view that integrates their GP data and their secondary care data. That is also true in parts of Greater Manchester and parts of Newcastle. That is happening. We have a lot more work to do to integrate that data. As you alluded to, those are two separate data streams.

You asked how outcomes are improved through the use of the app. On one level, it is very simple. Empowering patients by giving them access to their own data has a very powerful effect on the decisions that people make when seeking care.

My own lived experience of this is quite powerful. I was a GP in the United States, and I went through the process of having my patients have complete open access to all their records. I cannot overstate how powerful that was and how much it changed the conversations between



me and my patients, because prior to my conversations with them they had full knowledge of the same knowledge as I had. They had much more detailed, informed and precise questions about their treatment plans and the implications of their illness.

I cannot overstate how much having that information in patients' hands elevated the conversations that I was able to have with my patients. It made those conversations both more informative for the patient and more productive for me in our relationship.

I hope that that was helpful. That is one example. It is just an information example.

Q75 Taiwo Owatemi: As the Chair alluded to, we have a backlog and challenges with regard to people being able to access their GP surgeries. The internet has a range of different websites and empowers patients to be able to self-diagnose. As a pharmacist, I usually get patients coming up to me and saying, "I have this medical condition." I say, "Oh. What symptoms do you have? How were you able come up with that diagnosis?" A lot of it is because they have done their own research and want to understand their symptoms better.

The NHS has the ability to integrate some of the information that we have on the NHS website, for example, and other medical webpages so that all that information is concise and is in a location that patients are able to access easily and are able to navigate, similar to the CKS. It should allow patients at least to understand their healthcare.

Dr Ferris: The integration is what is so exciting about the use of digital in healthcare. To me, what you are describing is clinical decision support. That is the integration of patient-specific information with intelligence and external guidelines and support services to provide options to patients to guide their decision making. I want to stress that that should always be done in the context of a therapeutic relationship—for example, with a pharmacist.

The opportunity to empower patients and, simultaneously, to make the healthcare system more efficient is extraordinary. As I said before, I have lived through seeing those opportunities occur and obtaining both better patient outcomes and more efficient use of the health system.

My colleague Simon Bolton mentioned that the live services have been his responsibility for the past 18 months. This is one of those live services. Is it okay if I ask him to come in here?

Simon Bolton: Thank you, Tim. There are a couple of things that I would add, perhaps in a different context. I am incredibly proud of the way in which the team has managed to develop the app.

Chair, you mentioned that an awful lot of the reason that people use the app is the covid pass. That has created a phenomenal opportunity for us to do two things. First, we have created a team across NHS Digital—what



was NHSX and NHS England—that is developing the app at incredible speed. That team has come together very well in the recent past.

The other thing that it has done, through the use of the app and, particularly, the creation of verified accounts for users—we have something like 30 million verified account users now for the app—is what I describe as the crown jewels. The app is interesting. It is a really good route to market, as are the websites, but the ability to create those NHS accounts, which you and I can use as our own portal into our healthcare data, is really valuable.

I see in the future the opportunity to start using that as a much more effective way of calling people in for vaccinations, screening and a whole bunch of other things that can give more proactive services. That is a really good foundation for the future. We are beginning to demonstrate that we can develop that technology incredibly quickly and deliver value very fast indeed.

Q76 Taiwo Owatemi: I want to talk about the workforce and being able to achieve all the transformation we have just spoken about. During the pandemic, millions of people downloaded the app. Sometimes there were glitches and people were not able to access it. Post pandemic, there has been a change in the funding allocated to the app, but you still need to be able to recruit people and to run the app efficiently. Do you have enough resources to be able to achieve all we have spoken about today? Given the fact that tech is one of the most competitive sectors to recruit for, what challenges are you facing in being able to recruit the right staff, with the skills that are needed, under the pressures of “Agenda for Change”, which is what you are using to recruit staff?

Simon Bolton: The biggest challenge I live with every day is probably making sure that we have the right people, with the right skills, to help us in this space. At the moment, yes, absolutely, we have the skills to develop and progress the app. That is demonstrated by the work that we have done in recent weeks and months and that we have planned for the near future. However, the technology market is incredibly difficult for skills. We have seen huge inflation in wages, particularly in the private sector, and we are competing in that space for talent. Of course, some people will join us because they believe in the purpose, but we cannot rely just on that.

Into the future, we will have to think very carefully about how we can attract the best digital talent into the NHS so that we are competitive, at least to some degree, with the external market; otherwise we will not be able to deliver the capabilities that we need without relying on third-party suppliers, which is not always the best model to operate.

Q77 Chair: On the app, there is a messages section. I am looking at mine now. It says that you can view messages from your GP surgery, other NHS services, your hospital and specialist doctors. Those are the sections.



HOUSE OF COMMONS

There was some talk over the holiday period of the Royal Mail strikes impacting on the NHS, which is still a big user of the Royal Mail. Can you migrate people to receive messages about their hospital appointments only through the app, if that is their communication preference? I have a very detailed explanation from the football club that I support of the communication preferences that I want from them, but I do not have it from the NHS.

Simon Bolton: That would certainly be very desirable, but we are not there.

Q78 **Chair:** Are we trying to get there?

Simon Bolton: That is absolutely where we want to be. We want to give people the opportunity to receive the information digitally rather than via letters. Today, most of the communications that we get from our GPs and secondary care is by physical letter, which is not fast. It is certainly not the best way to do it.

Q79 **Chair:** It is not free either, is it?

Simon Bolton: No, it is not free either.

Q80 **Chair:** And it is not reliable. Other than that, it is cracking.

Simon Bolton: Of course, that is one of the benefits of the NHS account, which I have talked about. You need to be able to have verified information for patients so that you can send them data reliably and so that what is very often highly personal data ends up in the right place.

In my previous role, I was CIO at Test and Trace. We were sending information to citizens at a population scale. Making sure that you get the right information to land with the right person, so that we are not disclosing personal information, is incredibly important. The NHS account gives us the opportunity to do that.

Q81 **Rachael Maskell:** As a clinician, I would go to work using my hands and my head, yet there is this world of technology out there to engage with that could increase productivity and make a really transformational change to my practice. How are you engaging with clinicians in the development of your work? How are you building capacity for them to understand the scope of what is possible within their practice?

Simon Bolton: I know that you were looking at me, but can I ask Tim to come in on that one?

Dr Ferris: I am happy to come in on that. It is a great question.

I will say a couple of things. I will speak first as a clinician who started on paper and has gone through what I would say were some challenging transitions to digital, because what I want is exactly what you have just said. I want clinicians to have their brain space focused on patients and not on all the trappings of care delivery, including documentation and navigating around digital.



In general, the adoption of technology in healthcare has been challenging for clinicians because it has forced quite a bit of bureaucratic overhead and process on to them. In their offices and work life, other people around them often took care of those administrative processes. The adoption of digital has put them in a position where they are spending too much time on the computer and not enough time focused on their patients.

I see that trend as reversing. Technology, which has been the problem, is also the solution. Technology is becoming much more adaptive to the work flows of clinicians. Just as many people in their homes are able to speak to their computer, I have now worked in clinical environments where the conversation was recorded by the technology, turned into a transcript and then turned into documentation, all automatically. That is still some time in the future at scale, but those kinds of changes are making technology an enabler of clinicians.

I point to a recent article in the *British Medical Journal* as an indicator of the feelings about technology adoption and, for example, GPs' attitude towards having their patients see their own records. There has been a real sea change over the past couple of years. I see the clinical community largely embracing this move to both digitisation and greater transparency because more and more clinicians are seeing the benefits in their working lives.

Q82 Rachael Maskell: Do we need to see greater emphasis on training in technology and the digital opportunities that are out there?

Dr Ferris: You are exactly right. Digital and data need to be more integrated into clinical education. In addition, it is very important that the clinical community experiences the benefits early on and has a positive experience, so that it can take that forward as the industry develops—and it is developing rapidly.

Q83 Rachael Maskell: I would like to follow on, going from the clinical community to the wider community—the public. I am very conscious of the gaps within health inequalities. Digital technology has the risk of widening those inequalities, as those people with access to it have the opportunity to gain more knowledge and more access to clinical services, whereas those who do not have it could become more remote and not have that equality.

I notice that the King's Fund has said that less than 2% of the NHS budget is spent on IT and has recommended that about 5% is spent. Should more emphasis be put on closing that inequality gap and on looking at the provision of technology, as well as training around that? How can we ensure that technology closes that gap, as opposed to pushing communities further apart?

Dr Ferris: I will take that and maybe ask whether Kathy Hall wants to come in.



It is a very important question and one we think about a lot, because it is our obligation to make sure that the services provided by the NHS are equally accessible. We take that responsibility very seriously, as does everyone in the NHS in my experience.

The potential for digital to exclude is an important aspect of the evolution of the adoption of multiple channels. What we are doing here is not removing ways of accessing care; we are adding an additional way of accessing care. That is important in the sense that some people will simply prefer to pick up the phone; some people prefer mail. This speaks to the earlier question. We need to meet citizens where they are in terms of their preference for how they interact with the healthcare system. We have specific plans to bring a customer or consumer focus to the way we allow people to make choices about their contact modalities. That is an important component of this.

An additional component is that while we are adding a new channel—the app or other digital channels for interaction—it does free up some of the capacity constraints around existing channels. That is an important thing to keep in mind as we think about digital inequality and the potential for digital to create or exacerbate.

People are using digital channels. That enables us, as occurred in the vaccine programme, to track the uptake of vaccines because all the data was digitised and in real time. That enabled the vaccine programme to identify populations that were not getting the vaccine as quickly, and immediately changed tactics and addressed those sub-populations. Therefore, the ability to provide channels that are most appropriate for sub-populations is an advantage of digital approaches, because you collect the data and are able to use it in real time. That means we need to be agile in our approach to messaging patients, for example, to make sure that the greatest possible number of people benefit from the communication channels that are available to us.

Q84 Taiwo Owatemi: On the training and development of NHS staff, when new technologies are incorporated into the NHS, is an assessment being done to check how intuitive and user-friendly they are so that they do not create extra burdens on staff?

First, if you are working in a clinical setting and take some time out to do clinical training, but you have a discharge to do, you will not have time fully to understand that new technology because you are busy focusing on your patients.

Secondly, what is being done to expand the roles of the clinical digital team? I remember that when I did my pre-registration training I had an excellent pharmacist who led the digital prescribing element. That made a difference in the way pharmacists and doctors were able to approach online prescription, because they were able to have a conversation with the clinician, but it was also designed in a way they were used to working with. How is the role of the clinical digital team being expanded and fully



utilised?

Dr Ferris: This is a very important question. Simon touched on some of the workforce issues that have to do with the wider market and the digital professionals. There is a whole new type of digital professional: the clinician information officer. These have now been deployed throughout the NHS. They are pharmacy information officers, chief pharmacy information officers, and chief nursing and medical information officers. These are the professional leads within organisations for both the training and incorporation of digital in-work flow processes, but, very importantly, they are tasked with continuous improvement of the user interfaces, to get to your point about the extent to which the user interface is working for the work flows of the people who are delivering care. The expression on your face suggests I did not quite answer your question.

Q85 Taiwo Owatemi: I am aware that all those roles exist, but there is variation in their leadership and the skillset that those individuals have. I am trying to get to the root of how we ensure that we reduce that variation and properly invest in the clinical digital team.

Dr Ferris: What you are saying is that we need to raise our game, and I completely agree with you. We are working on raising our game. This is a very important element of our digital programme.

Kathy Hall: We have a range of specific training programmes that support the workforce in different ways. We have digital leader programmes for those who are in senior positions; we have digital graduate programmes and we have general digital training, but we are also working towards a digital workforce strategy. At the moment, that is in co-creation with regional groups and different users, and there will be an interim plan in the spring and a final one, with an implementation plan attached, in September. We are actively working on a lot of these issues with the profession and local systems and are bringing that together in a digital workforce strategy.

Q86 James Morris: I have a very quick question that returns slightly to the "organisational" point. Kathy, if I were to ask who was responsible for digital transformation in the NHS, whom would I call? It is a bit like Kissinger's remark, "Whom do I call if I want to talk to Europe?" Who is responsible for digital transformation?

Kathy Hall: Me.

Q87 James Morris: Right.

Kathy Hall: As NHS Digital and NHS England merge, NHS England takes on the responsibility for digital transformation in the NHS, and Tim as executive director for transformation leads on that.

Q88 James Morris: A year ago there was a directive for a reorganisation. There has been a lot of turmoil in that time. How is it going?



Simon Bolton: I think it is going very well. Of course, a legal merger concludes for NHS Digital and NHSE at the end of this month, but in the collaborative working there has been a significant shift over recent months—I work very closely with Tim—across that organisational divide. I think it will help us to get through the merger and become one legal entity so we can start to do things like consistent financial approvals, better financial planning and that sort of stuff. I think it is going very well.

Q89 **Lucy Allan:** I have a question for Jackie. It is important for the public to have trust and confidence when data is being collected and stored. How do you reassure the public that their data will be kept securely and used appropriately, and how successful have you been to date in reassuring the public?

Jackie Gray: Public trust is important. We will not succeed with the digital transformation that has been laid out and we have been talking about unless we bring the public with us.

The primary role of NHS Digital has been about technology, but also collecting, analysing and sharing data, so we are a national safe haven for data. That function, with the merger, subject to parliamentary approval, will transfer to NHS England.

We are very transparent about what we do. Transparency is important to help to support public trust, but just being transparent is not enough; we also have to engage with the public.

We are aware of the GP data for planning and research programme last year, which we launched and which did not go so well, despite the fact we were very transparent about how we were going to use and share data, how we were going to protect it and that we were going to make things much more efficient. The public and clinicians were concerned about that programme. Therefore, we paused the programme.

Since then, we have been engaging much more closely with clinicians and experts such as ONS and the national data guardian to understand what patients are concerned about in relation to how that data is used.

As a result of that listening exercise, certain commitments were made about that programme not going forward until there has been a much more significant communication exercise with the public about how data is used.

If you look at the commitments made in the data strategy published last year, that is recognised. We need to learn to engage better with the public. There are commitments in there about a pact with the public and about more transparency on how data is used within and across the NHS.

There is a commitment to look at how we share data in a different way, which is to share it primarily for secondary use purposes, not for direct care purposes, through secure data environments. That is a significant



HOUSE OF COMMONS

change in the way data will be shared in the future, and it will provide a lot more protection and security, because data can be accessed and analysed in situ rather than having to be shared. That was one of the key concerns that the public and the profession had about the programme.

NHS Digital has built a secure data environment within NHS Digital. We will continue. There is investment through the research and development programme to help us build that out further. I am sure that Simon, Tim and Kathy will want to say more.

Q90 Lucy Allan: Is there more work to be done?

Simon Bolton: Yes. It is so important we get this right because the effective use of data across the NHS benefits everybody. I was here a year ago talking to the same Committee, albeit a different cohort of people, about GP data. Getting public trust behind us to say that we can use data for effective purposes and give people options about how their data can be used is enormously important because the value is immense in terms of improved patient care and the performance of the NHS.

There are lots of good reasons to do it, but somehow we need to change the narrative. The narrative that was hooked into a year ago around GP data for planning and research was a Government data steal. That was the kind of Twitter hashtag. Somehow we need to get away from that and start to talk about the benefits of using healthcare data effectively to improve the overall performance of the system and benefit to patients.

Q91 Lucy Allan: Do you think NHS Digital understands people's natural reluctance to share data with organisations?

Simon Bolton: NHS Digital is often accused of being very conservative in the use of data. That is because we have seen some challenges in the past about data being used in perhaps not the best way. There has been a lot of criticism about how conservative we are. Somehow we need to free up the use of data in a way that is appropriate to allow us to take the value of that data better than we are able to today.

Q92 Paul Blomfield: Can I come back to a question we have already touched on in relation to the staffing challenge? It is widely recognised that there is a need to invest in the specialist digital skills you need. Simon, you have acknowledged what a challenge that is in the marketplace in which you are seeking to recruit. At the same time, the Government have set the ambition of reducing the workforce in NHS England and NHS Digital by 40%. How are you going to square the circle and sort it out?

Simon Bolton: The target is 30% to 40%, and it is to some degree a reorganisation. It is also about the introduction of the ICBs and devolving some of the capabilities to them from the centre, so that explains some of the reduction. It is absolutely true that we will be reducing the number of people; there will be some leaving the organisation.



I mentioned at the beginning the different entities at the centre of the NHS working on technology. That has been a challenge. You could argue that there have been too many different groups and different people trying to solve the same problems. I think that as we bring those three organisations together there is an opportunity for consolidation and making the organisation leaner and more efficient. Richard Meddings, the NHS England chair, originally talked not about reducing cost but about making the organisation more efficient. That is the absolute focus; it is about making the organisation more efficient and consolidating across it.

Do we have enough people? Yes, I believe we have enough people. Our real challenge is getting the right skills coming into the organisation when we need them. We have talked about the app and other capabilities—the things we do to make sure that the app is designed in a way that is inclusive, resilient and reliable, which you need for population-level services. Those skills are ones that traditionally the NHS has not necessarily had. Finding a way to get the education system to create graduates coming out of universities who can immediately come and help us maybe with workforce planning, as we do around clinical, technical and digital skills in the NHS, is something we can think about.

Q93 Paul Blomfield: In a sense, you are reflecting the question back to me. Do you have the resources and flexibility in what you are offering, including pay, to recruit staff with the skills you need?

Simon Bolton: Our honest view at the moment, as I indicated earlier, is that working on “Agenda for Change” pay scales and competing in a market for technology resources is remarkably challenging. We are very dependent on people coming to join us because they think it is the right thing to do. That limits the number of people we are able to attract into the organisation by definition.

Chair: That is the understatement of the morning, isn’t it?

Q94 Dr Johnson: I have one or two questions about the NHS app. You say it is reliant on GPs flowing in their data. What proportion of GPs in England and Wales are flowing the data in?

Simon Bolton: I do not know whether Kathy or Tim has that data.

Dr Ferris: I can get you the exact number. I am happy to ensure that you have that.

Kathy Hall: It depends on the functionality of the app you are talking about. There are different functionalities relying on underpinning systems, but, if we are talking about access to GP records and practices that have enabled that, since we went live I think over 600 practices during December offered that prospective access to patients. Therefore, over 2 million more patients had their records access enabled over November and December, and we obviously look forward to that increasing over the next year working with GPs.



- Q95 Dr Johnson:** Why would a GP do so? My GP—a rural practice based in Lincolnshire—received outstanding ratings in a recent review. There is already an online system. If I am feeling ill and want to put a question to my GP, I go on to the online app for my GP-based system. I can already ask questions and dictate how I want to receive the reply. Do I want a reply by email? Would I like a telephone call? When would I like my telephone call? All that data can be filled in already. I can request a repeat prescription, should I want one, for whatever it is I might or might not have.

Why would my GP, who already has better and greater functionality than that which you described at the beginning, wish to add his data to the NHS system? Why have your app when they already have a good app that works better anyway?

Dr Ferris: It is a great question. I emphasise that one of our primary goals is to do a levelling-up process and make sure that everyone in the country has the kind of access you have. Right now, it is quite variable throughout the country. Our goal is not in any way to undermine or subvert existing systems. Many existing systems provide patients with the kind of access you have. Those are both secondary care systems as well as GP practice systems, but the fact is that you are among a minority of citizens who have that kind of access to those digital systems. We think everyone should have that kind of access. It is great that your GP practice has invested in systems that enable that access. We want to make sure it is available to everyone.

- Q96 Dr Johnson:** I want to make sure that it is available to everyone as well. The question is: why do we need the NHS to reinvent the wheel? It is already in existence. Why do we need the NHS to spend money and resources on developing an app that already exists in the private sector? Why not encourage people to use the app that is already there rather than reinvent the wheel?

Dr Ferris: If I may emphasise just one point in response, there are several ways to come at that question. One is that the GP practice itself does not have access to all the information about you. If you were to go to a city—to secondary care—the GP practice does not have the ability to give you access to that information because all citizens' healthcare comes from different locations. Those different locations have different datasets available to them for delivery of care. It takes a national approach. If you are travelling on holiday and you are in an A&E in Liverpool, it is very important that the systems enable the sharing of data for clinicians and patients throughout the country and through all the different sources of healthcare data to allow a holistic integrated view of your care. The national approach has that idealised goal in mind. It is not intended to subvert excellent local systems that enable you to access your GP.

- Q97 Dr Johnson:** You are talking about something slightly different. I think you are talking about access by clinicians to data in an A&E in Liverpool when the patient lives in Lincolnshire or whatever. That is slightly



HOUSE OF COMMONS

different because when the patient is discharged from the A&E in Liverpool it will provide data to the GP, which will then be on the GP records that the patient can then access.

I think we are slightly at cross-purposes. What do you do to ensure that what you digitise is clinically relevant and useful? For me, clinically the most relevant and useful thing I have experienced as a patient is electronic prescription, which was mentioned earlier. I can say to my GP, "I have a migraine and I need some tablets for it," and they can be prescribed and I can collect them from a pharmacy in Westminster. That is a very useful thing for a patient to have, particularly one who is not always at home. Some of the things that we digitise seem to be pretty bureaucratic and not terribly helpful to clinicians.

As a consultant practising in the NHS, if I go back a few years, I would dictate a letter saying that I wanted to see a patient again in three months. That letter would be sent to the GP. The secretary would pick up that piece of information and make an appointment for three months' time. Now, as well as dictating a letter that gives the same information, I have to fill in a whole load of computer online forms that say what I have done with the patient and which part of the 18-week track I will put them on.

All of this takes time. Let us say it takes only 20 or 30 seconds per patient, as it does, but that is for every clinician across the whole NHS and it is a damn waste of time. It adds nothing to what was there already.

I am concerned to find out what it is you are looking at. How do you find out that what you are digitising is useful in improving the productivity of the NHS, rather than simply providing data on what the NHS is doing but reducing its productivity?

Dr Ferris: I will ask my colleague Simon Bolton to come in here. From my perspective, this is a continuous process of quality improvement. It is on us and is part of our charge to make sure that systems continue to evolve to become more user-friendly.

I give just one important illustrative example: the introduction of QR code. I am sure you have used QR codes, as most people have. There is an opportunity to use techniques like QR codes dramatically to simplify the entry of data so that individual people do not have to enter all that information multiple times. There are techniques like QR codes that are increasingly being introduced into our systems that enable extremely rapid transactions to occur. Just as when you purchase something and use a card reader, or a phone to pay for some transaction, you should be able to do that in your healthcare transactions, and we are working very hard to enable that kind of frictionless transaction.

Q98 **Dr Johnson:** Let me put the question differently. A constituent contacted me yesterday. He has had cancer in the past and had it treated successfully. He has to have imaging tests every year. His appointment



came through on Friday for his imaging test to occur next week. One can complain that perhaps the Royal Mail could have sent it slightly earlier, but it did arrive last week for the appointment this week. He is not able to attend that appointment, so he wants to change it. He phones the number on the letter and nobody answers. Then he rings the hospital and they tell him, "That's very interesting, sir, but you need to phone the number in the letter." He tries for another half an hour and still nobody answers. He rings a different hospital within the same trust and tries to phone the department. He phones PALS. He tries every different way. Ultimately, having spent an entire Friday and most of the following day doing this, he is still unable to change his appointment.

If he was able to make an appointment, or change an appointment, online, that would be a revolutionary, useful thing and it would take him two minutes rather than two days and still not being successful.

What efforts do you make to find out which part of digitising would be useful to patients and they are looking for and would help them, as opposed perhaps to telling them what the average wait is, which is probably something the consultant told them when they were listed? I can see that if you have data and it is easy to share it you can tell everyone, "We can do it. Aren't we clever?", but would it be more useful to say, "What do patients need? How do we deliver that?"

Simon Bolton: This starts to strike at the heart of the challenge we have. We all think about the NHS—probably the people in this room do not do this—as a single thing, but it is a massively federated organisation, and the solutions that we have in different trusts and with different GPs are often totally different. From the centre, that is the way it has been designed. Different places operate in different ways. You gave the great example of your GP. It sounds as if the practice has efficient systems and thinks very much about the user experience, but there are other parts of the system where certainly the experience is far from what we want it to be.

One of the things Tim has talked about since joining NHS England 18 months ago is managed convergence—starting to think about how these systems all work together with a drive for greater consistency for a couple of reasons. It is to reduce cost, yes, but, most importantly, it is about consistency of care and process so we can start to see opportunities for improvement and drive them consistently across the whole system. That is one of the challenges. We are enormously dependent on decisions that are taken in local areas to determine local priorities.

Q99 **Dr Johnson:** With respect, that does not really answer the question. The question was: how do you find out from patients and people like my constituents what it is about the NHS that they think being digitised would be helpful? They knew how long they have to wait for a knee replacement; the consultant told them it will be about three months or about six months or maybe longer. Being able to look at it and count



down from six to one is not necessarily the most useful thing to which you could direct your resources. As a consultant, widening electronic prescriptions to include hospitals would be revolutionary.

There are lots of things that you could do such as making online appointment changes so they do not have to have people sitting in the office on the phone and not answering it. There are things that you could do to improve the patient experience.

What are you doing to engage constituents, patients and clinicians and ask, "What would make your life easier as a clinician rather than just more cumbersome data for you to fill in?" "What would make your life as a patient easier?", rather than just, "What do we think we can share?", and then saying, "We can now share it with you"?

Dr Ferris: I think Kathy Hall wants to come in.

Chair: Briefly, Kathy, please because we need to move on to panel two.

Kathy Hall: On citizens, we have ongoing panels with people where we test out and get opinions from users. There are 5,000 people on a panel telling us what would be most useful about the app, and we can test their views of functionality.

We also do specific bits of research with users when there is a new product. We tend to pilot first and then evaluate: see if things are useful, see what we can learn and then roll out more widely. With clinicians, similarly, we have pilots and evaluation and real engagement through roll-out.

On electronic patient records, the evaluation shows that those who are more digitally mature are more efficient. Key to that is when we are actually doing the implementation of EPRs making sure that clinicians are really involved in that process and the different functions of how it can be customised to that local trust. That is part of the process as well.

Chair: That is interesting. We have really given that a good going over. Thank you very much to Simon Bolton, Jackie Gray, Dr Tim Ferris and Kathy Hall.

Examination of witnesses

Witnesses: Chris Askew, David Ramsden and Liz Ashall-Payne.

Q100 **Chair:** I will introduce the second panel. Liz Ashall-Payne is chief executive officer at ORCHA, which stands for the Organisation for the Review of Care and Health Apps; it has been going since 2015. Chris Askew is chief executive offer of Diabetes UK, and David Ramsden is chief executive of the Cystic Fibrosis Trust. Thank you very much. Sorry to keep you waiting a little bit. We are pleased to have you here.

May I start with Chris from Diabetes UK? It feels like there has been some quite significant news in recent days about an artificial pancreas



and type 1. Is it a watershed moment?

Chris Askew: Thank you for the cue. Are we ready for positive news in health? I hope so. This is one, albeit with some caveats. This relates to the publication of an appraisal yesterday from NICE, which is out for consultation, that recommends the use of hybrid closed loop systems for a number of people living with type 1 diabetes—potentially about 105,000 or 110,000, which is about a third of the people living with type 1.

In essence, hybrid closed loop uses a mathematical algorithm to pump insulin to the body as a result of constant readings that are drawn remotely from a continuous glucose monitor. What does that mean? It effectively means that somebody using a hybrid closed loop would be wearing two bits of tech: a small monitor that will be taking proxy measures for blood sugar just below the surface of their skin, and that would correlate with a pump also being worn on their body, which would infuse insulin to their body—hence the words artificial pancreas.

That could give you a hands-free situation where, essentially, those two items of tech working in combination are keeping your background insulin levels exactly where they should be. The user would still need to interface with the system around mealtimes. Keeping at a certain level of blood sugar and keeping in that range for as long as you possibly can is the most important thing you can do to avoid the risk of complications such as blindness, kidney malfunction and lower limb amputations.

If you think that this tech could significantly improve the chances of that not happening, it is a major win. Ten per cent. of the NHS budget, more or less, is spent on the care of diabetes, and most of that is spent handling those complications. Aside from the economic impact, the personal impact of avoiding those is huge.

The caveat—and this is out for consultation now—is that currently the cost of that tech is considered to be above the threshold that NICE considers to be effective and economic. Industries are going to have to lean into this as well.

This is a major place to get to: 101 years to the day when insulin was first used in a child we have this potentially huge breakthrough, which is obviously subject to consultation, and we are going to have to see how it can be made available to as many people as possible. It is a good news story.

Q101 **Chair:** It is a potential breakthrough, but with the word “potential” underlined. It is a preventive health measure, is it not? We know that prevention spend is wise spend. I am sure that Diabetes UK will not need to be persuaded to make the case here. You talked about the quality of life and prevention of complications, but presumably there is also a way of measuring the prevention of presentation and admission at emergency departments.



HOUSE OF COMMONS

Chris Askew: Definitely. All the randomised control trials that we used in this appraisal showed very clear clinical benefit and really startling results. Aside from the clinical benefits, I would add that living with this condition imposes a huge mental burden. Let me cast a scenario of a parent having to wake their child up in the middle of night to finger prick them to get a drop of blood, to measure it, and to intervene either with direct injection or with their pump. Not having to worry about that is a huge lift on that mental burden of living it. You are absolutely right.

This is published in the appraisal, but the cost of it is about £5,700 annually. Making the economic case for that up-front investment to avoid those costs of really severe health complications that bring huge costs and huge personal impact and turmoil is a major bit.

A wider thing—certainly in health tech and almost certainly in digital transformation—is understanding the up-front costs involved and how they avoid costs later in the health system and in the health service as well as bypassing huge amounts of emotional and personal harm.

Q102 **Chair:** The cost-benefit analysis feels like a no-brainer. When we talk about health tech and we talk about digital transformation, people always say, “Well, of course, in diabetes care it really adds up.” Is that down to clinical factors, or are there wider considerations as to what makes a condition a very good fit for this sort of remote care?

David Ramsden: It is a really good question. At the heart of it, lifelong and life-limiting conditions like cystic fibrosis can be very good exemplars, and the tech is already being rolled out and used by expert patients. In the earlier session, there was a lot of talk about consultation and getting experts involved. The primary experts in these processes are the patients.

We have a population of just over 10,500 people in the UK with CF. Over the last few years, a pretty high proportion of them have been involved in using some form of tech to monitor their health in terms of outcomes, monitor their ability or their adherence to treatment, and in some cases monitor symptoms.

There are a couple of elements that I would also reference. One is that we also have a data registry that has almost 99% of people with CF consented into it. For a condition like CF that has an inherently stable population, it allows you to do things with that data and interact with it on a timely basis.

One of the things that we are conscious of is that with all those advantages we are, in many cases, still at the evidence-gathering stage of the direct impact on health outcomes. When we look at this, we definitely look at what we can do now in providing assurance to people with CF about the state of their condition so they can access healthcare at the right moment, and be guided by some of what they are telling us.



Mindful of some of the earlier questions, we do a lot of consultation, and quite a high proportion of people are very pro things like remote monitoring and remote clinical appointments. Some are not. In fact, in our latest review, about 20% of people always wanted physical and about 20% of people only wanted virtual. It is very important that we recognise that heterogeneity in what we are doing going forward.

As you will know from your experience on the Committee, CF has been a rapidly moving condition, and that has been driven by innovation. We are really excited about the role that data and digital transformation can play in the next phase of dealing with the condition, which even with all that transformation still has a median age of death of 38.

Q103 Chair: Chris, there is a lot of talk at the moment about virtual wards. It is a very exciting new term that we keep hearing about. There is a role to play in getting people out of the acute setting. People with diabetes have been living in a virtual ward for years—right? You are a forerunner on this.

Chris Askew: Yes, absolutely. It is true for many long-term conditions that people are left with the burden of self-management for 99.99% of their time, and they will have a short amount of time with the clinician, which they really value. There is a risk, is there not, that, certainly, when we look at the adoption of health tech, which has been game-changing in diabetes, that is not the same as us being able to make an assumption that therefore everybody is happy with remote consultation?

We did a similar poll to the one that David did, and we found that 61% of people were positive, broadly or a bit, about remote consultations, and 32% were quite the opposite. But if we said, "What about the future? What would you like?", 68% of people wanted face-to-face consultations to be the mainstay or at least the regular feature of their ongoing clinical care.

The thing that throws a slightly interesting light on that is this. We talked about health tech and those continuous blood glucose monitors that are now on 80% of people with type 1 diabetes. That is a staggering shift over the last four years, and that changes from having to prick your finger. Fifty per cent. of those people accepted that wearing that health tech did really help to think about remote consultations—in other words, the upload of data that was coming from that. The ability to have a remote consultation now that they were wearing that tech was significantly improved.

There is an opportunity ahead to make a correlation between the amount of tech in our world in diabetes—there is also interesting tech in other long-term conditions—and what that says about remote consultations.

Clearly, the main piece—and Tim said it before—is that choice has to be there. There still has to be the choice that people can continue to opt for a face-to-face consultation. There are lots of reasons for that: somebody



HOUSE OF COMMONS

may want to be physically taken through the tech; they may have issues of privacy, which they cannot be assured about when they are doing it remotely; or they may quite simply need that impact of being in the same room as someone.

David Ramsden: Could I add one point briefly? In planning for the future, we funded a piece of research that came out with a counterintuitive answer. It looked at the ability of under-18s to record, through a digital medium, their health status on a regular basis. Actually, it was very problematic for people over 12—teenagers—to do that on a regular basis.

For a condition where you have a median age of 21, with your teenage years being a critical period where your health is at risk, it gave us pause for reflection that we can potentially make assumptions that we have a lot of digital natives coming through who will necessarily adopt these technologies at the rate that we might hope they would.

Q104 **Paul Bristow:** I have a cheeky question first to Chris, if I may. Before I do so, I refer everyone to my register of interests.

Regarding the new technology appraisal by NICE, how confident are you about the NHS's ability to roll out the artificial pancreas, at pace and scale, considering we have had technology appraisals on insulin pumps such as TA151 from 2008 and even before then, and we are still not at the level that NICE recommends for insulin pump delivery? That is quite an old technology now, and we are still not at the rates that NICE recommends. How confident are you in the NHS's ability to roll out this new technology?

Chris Askew: This is not confusing availability with access. Those are two different things. Something may be available according to NICE guidance, but that is not the same as people actually getting access to it, which is indeed not the same as take-up, which is also a different figure.

We are in cost-constrained times. The first step is having NICE appraise something, then a consultation, which is now going through, and then bringing industry to the table and getting to the right issue on things like pricing. Once that is the case, clinicians must be encouraged to make sure that it is being offered to people. There are categories for people, but those people who are in those categories should be supported to think through the options and take it up.

How confident am I about that? I look at what is happening with continuous glucose monitoring. We have gone up to 80% of people with type 1 now wearing those. Just a few years ago, we were languishing around 20%. It has been quite quick there, but that is a lower-cost item.

On something like hybrid closed loop, it will be a longer period of implementation. I do fundamentally hold the hope that once it is out there, once it is being used, once the proven benefits are there, once the



service begins to see that it is avoiding further harms further down the line and we are reaping the benefits of that, it will be there.

If I can make one point about inequality in access, because it is probably part of the answer to that, what we have seen in tech that has been adopted is it is not adopted equally everywhere, and different ethnicities play out in a really worrying sense. If you think about those monitors for children, between 2019 and 2021, we had a significant uptake—by about a third. About 30% of all children had those on their arms, but black children and young black people were significantly behind that. Although we have seen progress—a doubling of uptake from 2020 to 2021—that group is still a third behind everybody else.

There are questions. Why is that not being made available? Why is that access not happening? Why is that take-up not there? There are issues around the degree to which the service adopts NICE guidance and commissions it and finds the money to pay for it, and then there are issues about how it is actually being picked up and taken up by patients, and how much of that is around healthcare professionals' interactions with the technology and how much of that is around the population's interactions with that.

Coming back to your question on how confident, I am going to be reasonably confident. I think it is such a game-changing technology that once we see it in use people will make the case for it and clinicians will see the value in prescribing it.

Q105 Paul Bristow: Good. I hope we learn the lessons from insulin pumps and their lack of uptake over a number of years, and, of course, continuous blood glucose monitoring.

Liz, what are the main reasons people opt out of using digital technologies to manage their health, and what can we do about that?

Liz Ashall-Payne: There are a number of barriers to the adoption of digital health technologies, and some of them are quite simple. The first is awareness. People do not even know that these technologies exist. In fact, I am a trained clinician, I spent 20 years in the NHS, and I am not trained in this stuff, either. We are not aware that these technologies exist.

The second really simple challenge is access. Where do I go to find these technologies? If I am in the GP practice and I want to recommend a digital health technology to my patient, or I, as an end user, want to find a technology, where do I go to access these technologies?

The third challenge, if you do access technologies, is trust. How do I know I can trust it? That trust is not unfounded, unfortunately. Our research has found that only 20% of digital health technologies meet the quality criteria that you would expect.



The fourth challenge is around governance and reimbursement. If I am going to use something and I can trust it today, or if I am going to recommend something as a healthcare professional and I can trust it today, what happens if it changes tomorrow, and how do I manage future risk and reimbursement, which is around who is going to pay for this technology, because I may not have access to funding?

We did some research with young people recently that showed that one of their key frustrations is that they download health apps from the app stores thinking that a technology is free, get the benefit from it, and then start to realise that there are in-app purchases.

Those are the four big barriers to adoption.

David Ramsden: I am going to expand on the cost point. We have been talking for a number of years, and obviously more recently, about the cost of living for people. It cuts both ways. One in three people with CF tell us that they do not attend hospital appointments because of the cost—regular, routine key monitoring where they need to do it physically—because that is disruption to their employment if they cannot afford to do that or the inherent travel.

The flip side is that they will be a group that are probably drawn more to the remote monitoring. Particularly when that is regular, that can often require a stable internet environment. We can make assumptions that everyone will have certain devices and that the penetration is very high, but perhaps people will not have the reliability or the latest kit in place to ensure that they can access all the developments that we are talking about.

We need to ensure that we support people to fully utilise those because you can also have that compounding effect that Chris talked about. That is also going to land in probably the more marginalised communities and people with CF who are living in more chaotic households maintaining good health with a long-term condition that requires sometimes 70 tablets a day and many hours of treatment a day. All of that support needs to be offered at the same time so that they have the potential to access these things.

Q106 **Rachael Maskell:** From continuous glucose monitoring, we move to feedback loops and draw down data from that. The next step, presumably, to extrapolate is that through AI you could identify which patients need your consultation and which patients probably do not in the future. That is going to widen inequality for those people who are not engaged with the technology. How are you looking to address that?

Chris Askew: Thank you. You are absolutely right. When you look into the crystal ball, there is a huge amount of data that is effectively available from a hybrid closed loop system. There are constant calculations being taken every second and every minute. If you



aggregated that, you could get some fascinating data about both how to improve those systems and an individual's control.

I think it comes back to the point about the categories for whom NICE considers that this technology is available. When we think about uptake, we really need to make sure that that is happening across this whole group and that we are not getting some of the lags that we have found with uptake of continuous glucose monitoring in children. That requires proactive planning. If you are thinking about an uptake of that health technology, we would really advocate that a digital inclusion impact assessment be done as a part of that, and not make an assumption, as we often do with tech, that there is a universality to it that naturally comes with the fact that it is digitised.

If we are introducing new health tech into the system, we have to proactively plan to make sure that access to that is achieved across everybody who could benefit from that. We have to, with energy, go out and seek those areas—whether they are certain communities or are certain geographies—and proactively go out and promote uptake of the technology in those groups precisely to avoid the gradients that could occur later where we see the care of those who live in high levels of deprivation begin to split out overall and worsen while most people's care is improving. That would be a very bad place to get to. It needs to be proactively planned and not assumed that it will naturally happen.

Q107 Rachael Maskell: We could end up widening inequalities. Liz, I would like to ask you and then David about children and young people, particularly in adolescent years. It is a generation that is so engaged with technology. How do we ensure that whatever is being developed is very much on their radar and they want to engage with it too?

Liz Ashall-Payne: For me, this links in very much with the previous answer, which is around how we activate people who are not necessarily activated to use healthcare technology to look after their own health or manage a condition. We know that you are 70% more likely to use something if your trusted health or care professional has recommended it to you. We need to activate our healthcare professionals to understand the cost-benefits and the clinical evidence of technologies to be able to distribute it to those communities.

When we talk about children and young people, they are not necessarily engaging with the NHS. Where they find themselves is in other environments like education and schools. We have done programmes of work where we have activated teachers to be able to understand enough to be able to activate their students to become aware and have access to trusted health and care technologies.

Where this really puts us is: what is the problem we are trying to solve? If we talk about mental health in children and young people, that is a massive challenge, not least because as a primary care physician you are not able to prescribe drugs to children and young people for mental



health support. We know that the CAMHS waiting list is massive, so what can we provide those children and young people with while they are waiting or to help them manage that need today?

There are round about 5,000 technologies available for children and young people with that use case in mind. However, only 20% meet the quality criteria that you would expect, and, equally, different technologies have a different use case in mind. You may have a young person who is anxious, you may have another young person who has an eating disorder, and you may have another person with OCD. As the recommending healthcare professional, in the same way as we are trained in understanding specific interventions that we then recommend and provide our patients, we need to understand which technology will do what for which communities at what point.

One of the things that we do across the NHS is support that workforce development and provide access to digital health formularies in the same way as healthcare professionals have access to drug formularies. This is a trusted environment where I can go to pick and recommend digitally a technology to my patient's phone, and wrapped up in that is ongoing governance so the quality and compliance element is continuously tested, as is impact on those communities. If a new technology emerges, we can then send out further training and suggest different interventions.

David Ramsden: Can I build on that? I alluded a little bit to it earlier. We have done some research over the years to look at adolescence in CF because those teenage years are absolutely critical in long-term health. You have two things going on: the separation from parents and the potential move from paediatric to adult care. The conclusion of that is the adolescence element. It is not necessarily inherently anything about CF.

What I would take from what you said as well is that it is about having other trusted individuals. In the CF world, we are fortunate to have dedicated multidisciplinary teams of experts based in CF centres in hospitals across the country. They are absolutely essential to augment the roll-out of this technology because they are the trusted voices who have, in many cases, a virtual lifelong relationship with these individuals and can both be the promoter of that trust and coach people through the adoption of them.

We are seeing some really exciting stuff. Your first question was on the diabetes space. From the data that we have, we are now on the cusp of looking at algorithms that can potentially detect infection exacerbations before the person who is experiencing them is symptomatically aware, which could transform how they are treated. We are really excited about this next phase, but we should not assume that it negates the need for that really expert group of people to guide people through these changes at the same time.

Rachael Maskell: Thank you.



Chair: This is really interesting.

Q108 **Lucy Allan:** I find it very interesting that the evidence submitted by Diabetes UK referred to the difficulties in getting GPs and patient-facing professionals to engage with the sharing of data and the backlash towards that. It was a point well made. What is it that we can do to help patient-facing clinicians buy into what is trying to be done? Liz, perhaps you could start.

Liz Ashall-Payne: Absolutely. We heard in the previous panel about what was happening from a national perspective around workforce development. Of course, it is really important that we engage with clinical champions and system champions in the deployment of digital.

I always think about the workforce as a pyramid. At the top of the pyramid, you have your champions, and at the bottom of the pyramid you have your average health and care professional who is seeing patients day in and day out. Those communities do not need that detailed education and workforce development. What they need is to start that journey of learning.

ORCHA has been working with what was Health Education England to create exactly that: foundational learning modules, which are, I suppose, akin to mandatory learning—explaining what digital health is and how I engage with it with my patients, and then inviting them to think about specific modules relating to their clinical area of interest. If I am a diabetologist or a diabetes nurse, I am going to look at the diabetes module. Equally, if I am a midwife, I am going to look at the maternity module.

This is about very pragmatic learning: what do I need to know, and when do I need to deploy these technologies to my patients? We have found that some of that training can be quite rapid. Of course, it can be difficult to get the uptake, and that comes back to the awareness point. People need to be aware that this training is out there. We have seen, as a consequence of that training, a significant increase in those frontline healthcare professionals confidently recommending quality technologies to their patients.

Q109 **Lucy Allan:** Are there legitimate concerns around the GP data for research and planning?

Liz Ashall-Payne: Concern about the sharing of data?

Q110 **Lucy Allan:** Yes, the safety and security of patients.

Liz Ashall-Payne: From a patient and public perspective, we did some research on this. The highest cause of concern is clinical evidence and professional assurance. For over 50% of people, that is their biggest worry. About 30% of people are concerned about data privacy and data security, and about 20% around usability. That clinical evidence is still the biggest concern people have.



Q111 **Lucy Allan:** Are they right to be concerned?

Liz Ashall-Payne: Yes. When we talk about digital health technologies—I am talking about health apps, websites and web portals—20% meet the quality criteria across those domains. Yes, we should be concerned. There is no point in sugar-coating that. We need to stop and think how many people are downloading these technologies. Seventy-seven million people in this country have downloaded a health technology, and most of them have not downloaded something that is safe or of high quality or data private.

Our mission in part is to close that opportunity gap. If we can close the opportunity gap of people having access to high-quality, data-safe technologies, we will start to see adoption and consistent use of technologies being greater and then an expansion.

David Ramsden: Could I add to that? I mentioned briefly, and it is worth expanding slightly, that 99% of people with CF have consented to being on the CF data registry, which is an enormous number. I asked my team the other day why. One of the reasons is that the consent is achieved through trusted individuals. Critically, building on what you said, we are very clear on the control environment, and why.

As many of you may be aware, it was in 2020 at this Committee that Simon Stevens announced the interim access deal for modulators. Actually, the data registry is an inherent part of that. We can tell the story very clearly about the value of that data. All of us have a role. We rightly, as a patient representative organisation and a research organisation, are thinking about data loss, data risk and data breach, but we also need to make sure we have a narrative about data opportunity and data as a driver for change, which I think can push that difficult stone up the hill over the coming years when we really take people forward on that journey.

Lucy Allan: Thank you.

Chair: Brilliant. We are going to close it there. Thank you so much Liz Ashall-Payne, David Ramsden and Chris Askew for giving up your time and giving evidence.