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- **Tera Allas**, Honorary Professor at Alliance Manchester Business School and co-chair of the NHS Productivity Commission.
- **Mark Britnell**, Professor at the Global Business School for Health at University College London and Chair of Health Innovation Manchester.

Bart: What does it really mean for the National Health Service to be 14% less productive than it could have been? Why does productivity vary so widely between NHS organisations and with new technologies like AI and remote monitoring? How can the health service seize the opportunity to redesign care for the long term?

We are going to find out. Welcome to Productivity Puzzles.

Hello and welcome to Productivity Puzzles, your podcast series on productivity, brought to you by The Productivity Institute. My name is Bart van Ark and I'm a Professor of Productivity Studies at The University of Manchester, and I'm the Director of The Productivity Institute, a UK wide research body on all things productivity in the UK and beyond.

Welcome to Productivity Puzzles, the fourth episode this season. Today we turn our attention to one of the most important and most challenged public institutions in the UK, the National Health Service. Our discussion is inspired by a major new report from the NHS Productivity Commission at the Health Foundation, titled from Diagnosis to Delivery, a framework for accelerating NHS Productivity Growth.

The report shows that NHS productivity fell sharply during the pandemic, but has remained below its pre-COVID directory to provide you with just one statistic from the report. Had earlier productivity trends continued. The NHS would've been able to create 20 billion more in outputs. That's two thirds of a percent of GDP, and that could have meant millions more of outpatient appointments, for example.

With an aging population and tight public finances recovering and sustaining productivity growth is essential to avoid worsening patient outcomes and keep a check on the increase in funding for the NHS. But the commission also argues that

this is a moment of real opportunity with breakthroughs in technology, growing evidence on what works, and renewed focus on prevention and system redesign.

There's a genuine chance to rebuild the NHS in a way that is more productive, more responsive, and more sustainable for the long term. But doing so requires us to rethink what productivity really means in a healthcare setting, why productivity varies so widely across NHS organisations, and what are the major drivers that could help improve NHS productivity over the next decade.

Now, to help us unpack all of that, I'm honoured to be joined by both co-chairs of the NHS Productivity Commission and the co-authors of this first report, Anita Charlesworth and Tera Allas. Anita is a health economist based at the Health Foundation. She was director of research and she founded the REAL Centre for Research and Economic Analysis in healthcare.

She's a non-executive director in NHS. She's member of the Economic and Social Research Council and an honorary professor at the Universities of Birmingham and York. Hello, Anita. Nice to have you on here.

Anita: Thank you for focusing on productivity at the NHS.

Bart: Yeah, looking forward to the conversation. Tera Allas is a regular on our Productivity Puzzles podcast.

She's a leading expert on economic growth, on productivity, on public policy, and has a distinguished career over three decades in business, government, and the social sector. Now, next to her role is co-chair of the NHS Productivity Commission, she's also the chair of the Productivity Institute's Advisory Board.

She's a trustee of Be the Business and a senior advisor to McKinsey and Company where she has led their economic research for 10 years. Tera, great to have you on again.

Tera: Great to be here, Bart

Bart: In this conversation for the next 45 minutes. I'm sure we'll also benefit hugely from the insights on this topic from Mark Britnell.

Mark is a well-known expert on healthcare systems. He has a longstanding experience in the management of healthcare organisations around the world and the

UK. He's currently a professor at the Global Business School for Health at University College London, and an adjunct professor at the Sandra Rotman School of Management at the University of Toronto.

In September 2024, and that's important from a Manchester based organisation like TPI, he became the Chair of Health Innovation Manchester. This is a place-based innovation organisation overseeing a wide range of health initiatives in the Greater Manchester area. Great to have you join us, Mark.

Mark: It's an honour to speak with you and your colleagues today. Hi Bart.

Bart: Thank you. Well, really looking forward to this very important conversation. But Anita, let's first start with the big picture. I mean, to many people the NHS is something that we just need to fund because demand always keeps rising. People are living longer, illnesses are becoming more complex.

Healthcare is inherently labour intensive. So for many people, the question is, why should we care about the productivity of the system rather than just get it properly funded? What makes productivity such a critical part of building a future-proof health service?

Anita: Well, I think the very precious thing that you talk about are one of the reasons why NHS productivity is so important. Because we do face for, certainly you know the next decade and with no real end sight, rising demand from an aging population, from the joy of innovation, meaning that many more of the health problems that we couldn't do anything about, we increasingly can do anything about. And in some ways, we are living at the beginning of a golden age of health innovation, which perhaps Mark could talk about a little bit more, which is phenomenally exciting.

But whereas when you're in a private business, innovation expands your. market, you know, and you get a lot more revenue from that, innovation in the NHS is often experienced as a cost pressure because we're a publicly funded system. So being able to do more is both a blessing and an enormous pressure. But the productivity of the system matters because where we use resources, inefficiently, people are not getting care that could be provided with the money we are spending.

But also very importantly, if we spend more than we would need to, because we're not taking advantage of those productivity opportunities, that means either we're not spending on other public services, many of which play an even greater role in our health, you know, than NHS; and that's bad for our population health. Or, of course

what we are doing, is using resources that could have been used more positively and productively in the wider economy to make us wealthier.

So it matters for health, but it also matters for our economy. And the size of the NHS means now that, for organisations such as yours that think about the productivity of our economy as a whole, with 10% of our GDP going on the NHS, we have to all worry about NHS productivity.

Bart: Yeah. I think what's interesting in your answer is that straightaway it tells us it's not just about increasing the output and the quantity, but also very much the quality. Healthier people are better for the economy as a whole. And I think this is an important segue to the question I have to you, Tera, because in the report you make an important point, namely that productivity isn't just about doing more with less. It's really about the value of what you call the system, right? It's the NHS as a whole and all these big different parts that creates value with the resources it has. Can you talk us through why that distinction between doing more with less and creating more value, why that really matters so much?

Tera: Absolutely. I mean, ultimately what people want is a better life. And as Anita says, there are many different ways in the way the public sector and the private sector contribute to that. But if we think about what the NHS is doing, it's trying to help people have a longer, healthier life. If all it does is more operations and more diagnostic tests and more appointments which don't actually lead to those outcomes, then we're essentially wasting time and resources and goodwill in a system that's enormously important for the nation.

When we talk about system productivity, what we mean is kind of end to end. The patient goes on a journey through the system and, at each point, are we delivering the kind of care and the kind of attention that's going to help them have the best possible life, best possible health, going forward. So just to give you an example, if an A&E department really maximises throughput, but it does it in a way that compromises quality, even just a little bit, then that might lead to readmissions. It might lead to costs in other parts of the hospital or even in a completely other part of the system. So that would not be then optimizing or improving the efficiency of the system as a whole.

The one thing to point out though is that the NHS is incredibly complex. So there are hundreds of hospital trusts, there are thousands of GP practices, there are hundreds of millions of appointments a year, and there are one and a half million staff.

So, when we talk about system productivity, we also have this notion of you can't manage it top down through micromanagement or, kind of, precise levers. And complex governance typically gets in the way as opposed to help align the resources in the right way. So we're also thinking about how you move a complex system in the right direction. And there we really believe in aligned incentives and capabilities, which we'll come out to talk about a lot more.

Bart: So you hear the word efficiency and the word effectiveness, and we need both. Sometimes they help each other, sometimes they are trade-offs, and very difficult decisions to take. So we'll come back to that a little bit later in this conversation because I think that's an important issue to really think about. Because productivity needs a narrative everywhere, but certainly also in the healthcare sector to get people on board to see there's an important driver.

Now, Mark, you've seen several ways of change across NHS and other systems in other countries over your career. From your perspective, where are we now on productivity in NHS? What progress have we actually made, bearing in mind that productivity growth hasn't been zero. And where have the challenges grown the most?

Mark: Well, in my book, Human: Solving, the Global Workforce Crisis in Healthcare, we spend a lot of time trying to estimate global productivity in healthcare, and our best estimate was 0.9% per annum improvements.

The NHS has been historically a little less than that. It's a bit better at the moment, but historically the long run has been around 0.6%. There are other countries, which we'll talk about in a moment, that have higher rates of productivity inside healthcare. But of course, in a sense, keeping your answer to healthcare shuts out all the brilliant things that are happening elsewhere in society.

So on average industrial sectors will be growing at 2% per annum annual productivity gains . Vanguard industries, especially those with the AI or digital bent 10 times. Now, nobody is arguing here today that the NHS can be the same as a software company, but I want to make two long-term points and then answer your question about my optimism for the future for the NHS.

The first is since Adam Smith produced the Wealth of Nations in 1776, where life expectancy was around 35 to 37 year of age, we now enjoy of course in the United Kingdom an average life expectancy of 79 years. So undeniably health is wealth and wealth is health. And as you start to chart through the progress of capitalism in western society we've seen that the first three industrial revolutions: the first with

steam and water improved our productive capability by about 1% compound; the second with electricity introduced productivity gains of about 1.5% per year compound.

The third industrial revolution improved productivity by nearly 2% per annum compound; as we moved into the digital age, and of course now the fourth industrial revolution in AI. It depends who you speak to, who you listen to, what you believe in, but certainly we will be expecting now productivity gains between 2 and 4% over the next decade or so. So the first thing to say is inescapably healthcare has helped wealth and economic growth. Secondly, healthcare has not done as much as other industrial sectors to obviously improve the creation of wealth, but it's benefited very substantially from wealth creation.

We now have an opportunity, and this is why I feel so optimistic, when you think about whether it's genomics, whether it's biomedicine, whether it's genetics, whether it's new treatment modalities, or indeed the way that we approach healthcare, the possible introduction at large scale of artificial intelligence with work through changes in the way that we work, offer healthcare now an opportunity to not only dramatically raise its productivity, but also take centre stage.

Just two more things, Bart, that are worth thinking about the size of this prize is enormous. It may surprise your readers to know. Most people know that the NHS is the largest employer in Europe. What people don't understand now is because across the OECD, the average consumption of national wealth in healthcare stands at 10.4%. It's a very large sector, and it's also the third largest employing sector now on the planet. So although, of course, healthcare is about human beings caring for other human beings, there couldn't be a more noble cause.

The issue is, actually it really matters now not withstanding some of the events that have taken place over the last week or so in terms of Iran, healthcare has to, must become more productive and now potentially has game changing tools, which will make the interplay between labour, staff, technology, and artificial intelligence really, I think, give us cause for hope and optimism over the next decade and beyond.

Bart: There's a lot of great opportunity on the table. So I really like this optimistic start to this podcast, because we need optimism in order to really move things forward. You know, as I said, productivity narrative matters. I want to take a bit of a deep dive now. First, and Tera maybe start with you, because there was one really striking chart in the report that really stood out to me.

There were lots of really great charts, really big recommendation to read the report. And we of course made the link in the show notes.

But that chart compared the cost of delivering a standardised unit of activity across acute trusts in NHS. And there was just a massive variation, right? I mean, the median trust comes in at about 3,500 pounds per weighted activity unit. That's a technical term, but it's sort of trying to standardise this a bit. 3,500 pounds, whereas the lowest cost trust are 19% above that median and the highest cost trust are 15% higher than that of the units, right. That's a huge spread.

And of course it suggests some real opportunities to lift productivity across the whole system. So in addition to everything that Mark said about the opportunity of the future, we are already actually capitalising at least the best, the most cost effective trust already doing this. So there's a huge opportunity here

But it also really raises the question, what is driving that variation? So can you talk us through a little bit, through that sort of very striking observation about these large differences in experiences?

Tera: Absolutely. And I guess there are two separate questions. What drives the differences and why is the best practice not diffusing throughout the system?

There's one caveat though, to say that these kinds of measures are never absolutely perfect in comparing apples to apples. So there will be some kind of complexity of cases, and stuff like that, that could be driving some of the variation. But as you've pointed out, some of it must be due to just different practices of operating in different trusts, and there is a huge opportunity there for lower cost trust to be able to diffuse some of that knowledge and best practice to some of the other trusts.

Just to start with an interesting observation here as well, that in the private sector, in a competitive market, the theory suggests that that kind of cost variation would be driven out by competition, but the reality is that it isn't. And so even in the private sector, there are big problems and big barriers to diffusion of best practice.

And one of the biggest reasons for this is the kind of what let's call it the trap of firefighting. If you are a poorly performing organisation, then you tend to end up spending your time and management and leadership tends to end up spending their attention on managing very short term needs, immediate pressures, essentially a kind of survival of that organisation rather than being able to step back and really look at the things that would improve outcomes and outputs and performance overall.

So what are some of those things? They could be things like staff training. They could be things like redesigning workflows to improve efficiency and reduce waste. They could be things like using IT technology to take tasks off of people and make our staffs work easier because they have the information they need at their fingertips.

And so. It tends to be a bit of a vicious circle. If you're poorly performing, it's very hard for you to break out of that. Now, one of the solutions is to create the space for those are less well performing organisations to step back and improve.

And a critical ingredient in that often is also creating capacity for management and leadership to spend time on those bigger picture issues. And here we note in our report, and we find in research, that the NHS is undermanaged basically only about 2% of the NHS workforce is actually management versus 9.5% in other sectors.

So there's already a capacity constraint. And then when you think about what pressures that management is under, there's also a constraint from the system in focusing their time and effort into improving that system level capability rather than fighting fires or meeting immediate deadlines or immediate targets.

Bart: Yeah, and that last point of management capacity is so interesting, right? Because if you would ask the general public, they wouldn't probably say that managers are the key driver of improving the healthcare service. But again, we're talking about the productivity of the system and trying to join all these things up. That is really important.

But I think what was important in your answer here on these big variations also is that, yes, there are of course differences in case mix between different entities and that can drive some of these differences. But there's a lot more going on, management capacity, workforce composition, staff wellbeing, also the digital infrastructure and all those kind of things, that play a big role as well.

So Anita and Mark, just sort of building a little bit on that, out of all these challenges - and again we're just talking here about productivity gains that have already been realised by the most productive parts of the system, so we're not even talking at the bigger price ahead - but if you just look at the big variation in the sector, where do you see at this moment the biggest opportunity to begin to at least close the gap relative to the best performance?

Anita, maybe start with you.

Anita: So I think most people who look at this and think about more of the short term opportunities would say that where we have organisations who are really struggling, what we often observe is really problematic bottlenecks.

So healthcare is typically about flow through a system, yeah? And a lot of our problems in terms of where we observe low productivity are where we get problems with the flow. So we need to make every step in the system as effective as we can. And often what we do when we get the bottlenecks then, because I think it's not just a management capacity, but also some of the capability, you know, we don't in our invest enough in system engineering, in analytics, in those sorts of skills and then in middle management that are able to take some of the insights that comes from those things and actually put them into place.

So you get things like, you know, I was talking to someone the other day, they've got big problem at the moment with ambulances at their A&E door waiting long time to get the patient in, yeah? And so that's problematic for the patient, but then that takes that ambulance out of service essentially for that time. The response at that moment can be to try and flood your A&E with extra staff to cope with that. But the reason why they're not being able to take the patient off the ambulance and into the A&E is not because there's a problem in A&E.

It's because actually they've got a problem in the ward because the patients who need to be admitted, they can't get into the ward. Why have they got a problem in the ward? Because they can't get the patient home. But people are so busy and all the management is so busy, you know, on that front door that the things that they know they need to do to get standard operating procedures, to get people out on time, to get their pharmacy and all those sorts of things happening, they're not able to focus on because they're completely stuck.

And then we put more people in A&E and good intentions lead to ever more problems. One of the other reasons why we can't get the people out is because we haven't got the community services that they'll need to go home because they're medically fit, but they'll need some help. We can't afford to put the money into that because we're putting all the money into the extra people in A&E to cope with the fact that the ambulances are all backed up.

You could see that it's the law of unintended consequences that happen and you could get into that cycle. How to break out of that is the thing I would love to know the answer to. Because it's completely understandable. And it's a really important service. So how you can analyse that problem, but supporting management to get out of that problem is really hard.

Bart: Mark, from your experience, again, looking just at the gaps between the best performance that are already there in the sector and, you know, many entities in the organisation just being behind that. How can we make that catch up happen?

Mark: Well there are three things I'd like to briefly say, Bart. And the first I think might shock you and your listeners. In all, 37 years in healthcare and the 81 countries I've worked in, I have never seen a health plan that puts front and centre productivity.

So I challenge anybody that listens to this call today to show me where any national health plan of any country, rich or poor, is decided to say productivity is the quest which we will prosper or fail over.

Bart: Because, Mark, there is no narrative. There is no good story to be told to the people about why this is important.

Mark: Yes, of course. As Anita knows, I made my career managing one of the largest teaching hospitals in the United Kingdom. So lots of my career has been managing with wonderfully intelligent, inspiring clinicians. And if you use the word productivity, it's like having a cold bowl of sick thrown into the conversation. And this is unfair.

Productivity is sexy. Productivity is reform and reform is growth in change. So the first thing is, genuinely, I think the work now that's being done by Tera and Anita is groundbreaking for the United Kingdom, long overdue as well. We need governments to more explicitly make the link between health and wealth and wealth and health.

Usually finance ministers quiver, shake and run away when the health minister approaches them and says: please sir, can I have some more like Oliver Twists? But actually now to mix my metaphors, and this is a JFK one, I think it's time that we asked healthcare to do something for its country and not always ask its country what it can do for it.

And that's because future economic wellbeing and health wellbeing are inextricably linked, especially now in these sad times where countries are being asked to spend 5% of their GDP on warfare and defence. You know, your listeners know that when you look at the correlation since 1945 in the United Kingdom specifically, we used to spend 3% on health and eight or 9% on defence. And of course, those numbers have reversed completely now. So we need to be more productive just to defend our countries, and this is a very big issue.

The second thing I would say about changing the narrative on productivity. I'm with the speakers today about, uh, changing the way that we think about workforce redesign, the best principles of clinical improvement science. But what we always miss in every industrialised developed country is changing the education curricula. Sure, we only have 2% management costs, but the managers, with due respect to even the best managers in the NHS, don't really manage the doctors and nurses. They may coexist alongside them. The real issue is making clinical staff understand that productivity and clinical improvement science is a 21st century skill, that they must be masterful in.

And therefore the way that we commission and the way that we think about training and learning, especially now in the fourth industrial revolution, which is about relearning and unlearning as much as it is learning. These are things that we can do.

And of course, when you think about big public sector bureaucracies, they work in fortified monumentally large silos. And so, the idea of the IT and digital department working with educational commissioners, or the way that nursing or the future of medicine is conceptualised. These are very strange terms, which obviously in my work with KPMG for 13 years around the world in the private sector, those barriers are less. They're certainly there, but they are less because of the market dynamics that we mentioned before.

This will be music to your ears. Reform is sexy; second productivity is sexy. Thirdly, I think this issue now about reframing the productivity debate to make sure that it's front and centre of all health reform in the future because health is wealth and wealth is health.

Bart: Look, what's really clear from the discussion so far is that these productivity gaps are, are never caused by a single issue.

It is really a sort of interconnected system of weaknesses. That's why we use a system context. But also really importantly, about what the opportunities ahead of us are. What we're going to do after the break is to take a bit of a deeper dive into the four big drivers that have been identified in the report: workforce, capital, technology, and transformation.

But before we get there, let's hear what else is happening around the Productivity Institute.

Ad: National Productivity Week is back from 27 April to 1 May 2026. Join researchers, policymakers and business leaders nationwide to explore how the UK

can boost productivity and deliver better outcomes for people, firms and places. Find out more and get involved by visiting productivityweek.co.uk.

Bart: Welcome back to Productivity Puzzles. Today we're diving into productivity in the NHS guided by a major new report from the NHS Productivity Commission at the Health Foundation, titled From Diagnosis to Delivery, a Framework for Accelerating NHS Productivity Growth. And the link, of course, will be in the show notes.

I'm delighted to be joined by two of its co-authors and co-chairs of the commission, Tera Allas and Anita Charlesworth, and to help us reflect on the report's insights we are also joined by Mark Britnell from the Global Business School for Health at the University College London.

Now let's turn now to what the report identifies as sort of the key drivers of NHS productivity and they're organising to sort of four major areas that together form the commission's framework on how to strengthen productivity across the system.

Anita, let's start with the first two of those four: workforce, so the people who deliver the care, very important. And capital, which are the buildings and equipment and the digital infrastructure they rely on. And one finding that really jumped out to me from the report is that while staff costs take up the vast bulk of NHS spending, not surprisingly, the consumption of capital has really been left far behind.

And the question is what kind of challenges that create for productivity in the day-to-day delivery? You got the people, at least you try as good as possible, but you haven't got the equipment and the building and the capital to let those people become more productive.

Anita: Yes, exactly. So, and just to put that into stark relief, meaning one sense the NHS is an example of a wider problem across the UK economy in that we're investment light.

In the NHS we are particularly investment light. We've had a lower level of investment in capital than comparable health systems around the OECD for some considerable time. And our capital investment per worker has fallen by more than a third since 2010 in real terms.

Now that's in a period where, as Mark was talking about earlier on, there are enormous opportunities through technology and innovation to change. And I'll give you an example. One of our big drivers of productivity over the last 20 years has

been a huge reduction in the amount of time people spend in hospital when they have an episode of care, if they have a piece of surgery.

Part of that is driven by major developments in anaesthetics, yeah? But also in surgical techniques that move to keyhole surgery. If you have a keyhole surgery, your recovery time is much faster than when you had an open surgery. Big exciting development now: robotic surgery, yeah? Which improves outcomes even further, but robots are capital investment and we need that capital investment.

So some of this capital is about being able to have the new frontiers of the things that'll transform. The other thing though that is really important is we've got a backlog of maintenance in the NHS of over 13 billion pounds. You can't operate on somebody if the air conditioning in the operating theatre is bust.

You have a huge number of staff at ready, really expensive, skilled staff. You've brought the patient in, got them ready, and you're cancelling an operating theatre. because the air conditioning system is old and unreliable, yeah?. So there's that sort of issue as well.

Final issue: we know that we want to move care out of hospitals into the community. We could do so much more now with all those innovations in the community, yeah?. But a lot of our gps are operating still in basically the front room of Terrace house, yeah? They can't do advanced medicine without being in facilities that are suitable for that. A gynaecologist said to me very recently that most of the gynaecology that's currently done as a day case could be done in outpatients.

If you've got an outpatient there where the room is too small, you don't have somewhere for the patient to change and you haven't got somewhere for them to just sit, gather themselves and have a cup of tea afterwards, You can't do that. So there's some really exciting tech kit we could be buying that would really change that frontier by making sure that we haven't got all of these problems from equipment that's practically at the facilities that are clapped out.

And then there's also actually just making sure that we've got the right physical facilities to enable some of that real big improvement. So it's everywhere.

Bart: So, your point is that capital need to catch up with the workforce, but that's gonna be a long trajectory, which really gets me to the third driver, Tera, because that will be technology and innovation. So quite often this is portrayed as the miracle for fixing productivity in this environment where we have lack of capital and there's a lot of current excitement around AI, the appetite for tech solutions and so on.

And there are major applications as the report identifies, right? AI tools and remote monitoring single, patient records, NHS online. Now you have worked across both public and private sectors on the opportunities and the risks of new technology. So my question is: what are the real productivity opportunities here for the NHS and what are the pitfalls that we need to avoid to not have this end up in tears, that we get overly excited about the technology promises and then not be able to deliver on it.

Tera: Absolutely, Bart. And you know, in any kind of organisation, technology and innovation are always thought of as the magic bullet. And you know, from a theoretical point of view, they are the biggest driver of productivity over the long term.

The challenge is that people tend to think of them as a magic bullet and so they don't put in the work that it's required on the organisational front to actually get the benefits out of the technology. And often they don't design the technology around people, which is an absolutely rule number one if you want to make it work for the patient and work for the staff, and therefore work for the outcomes that we are trying to target here.

I would say that, but you and Anita and Mark have already explored quite a lot of the huge opportunities that technology brings, whether it's in improving literally the treatments that people get and making them less invasive, fewer side effects and better outcomes. Or. I guess from a productivity point of view, also improving workflows, which could be really basic stuff, like scheduling appointments in a more efficient way, or reminding people so that they don't miss their appointments or, you know, refilling capacity when it pops up and stuff like that.

I would emphasise that the big challenge here is not around whether the technology exists. It already does and has done for quite a while. It's getting better all the time, but it is getting blindsided by the amazing technology and not focusing on either the patient nor the staff. Because that's where typically all kinds of technology and innovation proposals and programs go wrong.

And let me just give you two examples. So in the NHS, one of the biggest challenges around making the most of technology is decommissioning or the lack of decommissioning. So what tends to happen is new systems get built upon previous systems and the old ways of working, let's say using pagers or fax machines or whatever it might have been, still linger.

And that means you don't actually get the most of the new technology. And another example, which I think is going to be critical if we want to make the most of the new technologies around, is user centricity. So, so many systems that we hear about in the NHS are actually taking more time from the nurses and from the doctors and from the managers and from the people in the healthcare settings, rather than releasing time that they could be spending with the patient, or coming up with a better care plan or indeed thinking about system level productivity.

So, we need different capabilities, I think, going forward that are less about the shiny technology and more about the understanding of how technology and people and systems come together, how you co-design them in a way that actually delivers outcomes and not just a big bill that people are having to pay.

Bart: So we need investment we need technology to catch up with the people that we are making available in the sector. And that raises to me another question, and that is, do we have sort of the right sort of culture in the NHS for innovating and for learning? You know, Mark talked earlier about all these brilliant doctors and nurses who are spending all their time and are highly motivated to do good work, but that's not necessarily equivalent to have an innovation and a learning culture.

So Mark, as I said earlier, you're chairing the Health Innovation Manchester entity and, and we have a interest, of course, a special interest in Manchester. So maybe from that experience, um, you are the frontline of shaping the culture in, in a healthcare system broadly.

So how do we actually build a culture that is focused on learning and on innovating in order to make sure that technology and equipment and people get joined up? That it becomes the norm rather than the exception of good practices in the system.

Mark: I absolutely agree with the arguments around fossilisation and people building on old systems and never changing those old systems. So this idea of hybrid development is antithetical sometimes to some of the best innovations. And what I want to do, Bart, just briefly is take you to the east and then bring you back to Manchester. So for example, I'll give you some examples.

So in China now, a big organisation called Ping An Good Doctor. It's a healthcare provider, healthcare insurer. It has artificial intelligence spots that are simultaneously consulting with 350,000 Chinese outpatients per day, of which only 35% get to speak to a human being. So that was not a hybrid system. It wasn't the fossilised system. It was a brand-new system conceived through financial services industry to healthcare. That's one example.

If I take you to South Korea, some of your listeners will be familiar with the idea of the smart hospital, which is essentially how the Internet of things works inside a hospital to make it more productive. The Koreans now have leaped past smart, smart hospitals into intelligent hospitals. So if you look at Samsung Medical Corporation, one I know very well, it's now using artificial intelligence to guide clinical practice. Not to inform it, but to guide it.

And then in India, in the largest private sector healthcare group in India, called Apollo, each doctor now has a doctor, an artificial intelligence doctor in their pocket. If I take you to Saudi Arabia, they now have 800 intensive care beds managed from Riyadh across all of Saudi Arabia, the largest virtual medical intensive care unit in the world.

Now, let me come back to the NHS. In all four of those systems, they were built by clinicians in scientists and data engineers, and they're built in a way which acknowledged what was currently there, but did not try and build on it. Now that takes capital and it takes revenue. The real issue I think of this, and of course, you know, I worked in the NHS for 20 years, the capital argument that Anita makes is absolutely self-evident. It's emblematic.

But something we never think about is the NHS spends over 200 billion pounds of year of revenue, and therefore we have to now, dare I say, it, become less risk averse. We have to start making deals between the public sector and the private sector where that revenue base is put at risk to generate those benefits. And that requires different way of thinking about relationships and partnerships in the future for productivity.

Because even if you think about staff training, it's a 6 to 8 billion pound business in healthcare. It's never been reformed. It basically buys what we bought for the last 60 or 70 years and more of it, quite rightly so, but it hasn't, hasn't bought different. And therefore, sometimes I think, and this is something I find in Health Innovation, Manchester, of course you need to give people time and space to think, but there are tools that can be trained. You can train yourself to think in more innovative ways. You can think about where you are on that innovation cycle from discovery to deployment. Not everyone is a genius or discovers new processes, but all of us can learn, develop and, I think develop innovation.

So, our principal job at Health Innovation Manchester is doing three things. We have the best dataset in the English NHS. We have the Greater Manchester Care record that links healthcare with social care and increasingly in our community pharmacies. The second thing we do is we try and teach people to to think differently and to

approach problems in a different way. And then the fourth thing we do is bring partners together to create new solutions.

One thing I'm very conscious of is our IT systems. I had the privilege last week of speaking in Barcelona with the head of the Danish Health IT system. Their system's been going for 25 years. It connects healthcare with social care, with local government, with community pharmacies. The productivity benefits from that about viewing the individual as a citizen as well as a health consumer and a local government consumer. It's very large indeed.

And here's the rub. If you keep reorganising our health service, which the UK gets the gold medal at, okay? Don't be surprised if you don't get continuity to lift and shift at scale. So there's some thoughts about your very pertinent point. But look to the east and look at what, look at what they're doing. They have more labour flexibility, more labour fungibility, less fossilised systems to build upon. But we can still do things in the NHS.

But I think we have to obviously look at capital. The fact that we've got a 13 billion backlog is a disgrace for the fifth richest country on the planet. But look at the revenue. It's nearly 11% now of our wealth. How are we making that work smarter? And that takes confidence and risk. And those things can be developed and taught and practiced.

Anita: One of the things that I think stands out for me from what Mark has just been saying, and a lot of the fresh observations that Tera has brought to our commission, is we are talking about a leadership and a staff that are able to see opportunity and are empowered to realize opportunity. And that's the world we need to be in. And the pace of change is such, we have an NHS that is a compliance driven culture where we mandate to various degrees of official or less official. And doing a good job is following the rules and they're following the rules in each of the little bit.

It's the ultimate sort of bureaucratisation of a system. And of the bigger points, I think, which has really come home to me in this work is that, actually, that highly centralised, highly codified compliance culture with a very low risk appetite is the antithesis of the sort of culture that model that you would need for this world.

And that's the other thing that's really important here because one of the points I just want to make is productivity is often seen by staff as a kind of threat and as an attack on them. We're not, you know, if Mark's productivity is it, it is sexy. I think productivity is about bringing back some of the joy to work.

Because a lot of the sources of our lack of productivity are the things that make people at the end of the shift go just why I am banging my head against a brick wall. I went into healthcare to improve lives and today I've had to battle a system to try to be able to do that.

Bart: OK, we are running out of time, but there was another very important driver, the fourth one. We had staff, capital and technology. But there's also, of course, the transformation of the system. The big change in the system, you know, everything will depend on one thing, and that is how we, in a system like this so large, as Mark said before, able to prioritise, to align incentives, to empower local leaders, to make coherent, dis uh, uh, decisions across all these institutions in the NHS.

I want to put to you, just to wrap things up, a quote that one of our listeners sent to us and, and that quote put us rather bluntly, basically saying: The UK has a politician governed system for capital distribution, even for acute care, and it has manifestly failed.

To me that was an interesting summary and, also referring a little bit to what you just were mentioning, Anita, about where we really need to change, how do we get the ownership of change and productivity back into the system itself. Mark, what will be, very briefly, your advice taking this investigation forward in order to try to improve things in productivity in NHS.

Mark: For four years, I was a member of the World Economic Forum Health Council and work that I did, along with Harvard, we looked at the five great tectonic reforms that, uh, governments can make to improve productivity over the long term. And if there was more time, I could go in detail in the five. But when you put these five together, carefully orchestrate them, you're getting productivity gains, yields are between 16 and 21%.

Very few of those concern themselves with politicians, but they do concern themselves with practitioners and leaders. So I hope that I'll be invited back one day, Bart, to talk about them further. My simple answer is, politicians like spending money. They don't like talking about productivity because that's harder. But that's exactly the job of every developed nation on this planet now.

Anita: We live in a democracy and healthcare is publicly funded. But what we need to think about is what is the right role of the politician? And I think if we look at other areas like the Bank of England and inflation, what we said is politicians should set the target and the goal, yeah? And then they need to allow the people with the expertise to do the job of achieving that and hold them rigorously to account.

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And we need an NHS where we are much clearer about what the goal is what we're trying to do. So that's really critical. Politicians have a key role to play in doing that. But then we need to devolve and empower so that people locally have the tools to make the change and to adapt to the world. But there needs to be a proper accountability framework for that as well.

Tera: So I want to build on what Anita has just said. I fully agree. We need a single unifying goal that gets cascaded down, and then people are given the autonomy, and empowerment to just go deliver better outcomes for patients within the constraints of the finances that will always exist.

That sounds like a huge culture change. Lots of people get worried when we use the word culture. But it's utterly possible to change a culture. You need to have the narrative, as you keep saying, Bart. You need to have some role models that are genuinely showing how to behave in this new world. You need to align incentives so people who are doing the new thing are rewarded and celebrated. Then you need to give people the skills and the tools to get on with it.

Those are all very doable things. If you put your head down and decide you want to change a culture towards something that's really focused on delivering better outcomes for the amount of resources that were put into the system.

Bart: Well, great comments, but we have to leave it here for now. But good news is there's a lot more coming. The NHS Productivity Commission is just getting started, and you can follow the ongoing work at the Health Foundation's website at health.org.uk.

It was a really rich discussion today about the challenges, but also very importantly about the opportunities of improving productivity in the NHS. So let me thank our guests, Anita Charlesworth and Tera Allas. Good luck with the next phase of the Commission's work. And Mark Britnell, thank you for your insights and best wishes for all the important work including your leadership at Health Innovation Manchester.

Our next four episodes of Productivity Puzzles will be around our upcoming National Productivity Week, which will be held in the last week of April from 27 April to the 1st of May. During this week, The Productivity Institute will again organise or support a range of events, and in the four podcasts we're going to hear from The Productivity Institute's key researchers as they're completing their programs of the past two years. We'll hear about the work done on skills, on job design, on the dual transition of digital and climate, on finance, and the role of diffusion of knowledge and business innovation.

For all information on National Productivity Week, go to our website productivityweek.co.uk. And then meanwhile, you can sign up for the entire Productivity Puzzles series for your favourite platform to make sure you also don't miss any future episodes. If you'd like to find out more about upcoming shows or any other work by The Productivity Institute, please visit our website at productivity.ac.uk or follow us on Blue Sky and LinkedIn.

Productivity Puzzles was brought to you by The Productivity Institute, and this was me again, Bart van Ark at the Productivity Institute. Thanks for listening and stay productive.

End of transcript