HOUSE OF LORDS

Select Committee on Science and Technology

Corrected oral evidence: Life Sciences and the Industrial Strategy

Tuesday 19 December 2017

9.45 am

Watch the meeting

Members present: Lord Patel (The Chairman); Lord Borwick; Lord Hunt of Chesterton; Lord Kakkar; Lord Mair; Lord Maxton; Baroness Morgan of Huyton; Baroness Neville-Jones; Lord Oxburgh; Lord Renfrew of Kaimsthorn; Baroness Young of Old Scone.

Evidence Session No. 24 Heard in Public Questions 255 - 261

Witnesses

Professor Tim Evans, National Director of Clinical Productivity, NHS Improvement; Miles Scott, Improvement Director, NHS Improvement.

USE OF THE TRANSCRIPT

This is a corrected transcript of evidence taken in public and webcast on www.parliamentlive.tv.

Examination of witnesses

Professor Tim Evans and Miles Scott.

Q255 **The Chairman:** Good morning, Professor Evans and Mr Scott. Thank you both for coming to give us evidence today. We are live streaming on the parliamentary website now. Before we start the questions themselves, it would be helpful for the record if you would introduce yourselves. Can you also say what NHS Improvement does and how you are associated with it?

Professor Tim Evans: I am a clinician, still based for one day a week at the Royal Brompton and Harefield NHS Foundation Trust and at Imperial College where I am a professor of medicine. I am also involved in intensive and respiratory care medicine and I am a biomedical scientist. I have been seconded first to the Department of Health and then to NHS Improvement to assist Lord Carter in writing his report on the operational variability in NHS acute trusts in England, and later I moved on to NHS Improvement as part of the Operational Productivity Directorate, which is looking at implementing the recommendations of the report with the aim of improving outcomes for patients, unifying clinical care as it is delivered, and assembling, which I think is relevant to this morning's deliberations, large amounts of data on something called the Model Hospital. I am also looking at laboratories, imaging, estates and so on, but at clinical services in particular.

Miles Scott: I am an improvement director at NHS Improvement. My background is that I had a 30-year career in NHS management with 15 years as a hospital chief executive in Harrogate and Bradford teaching hospitals, and most recently at St George's hospital group here in London. I have been involved a lot in the interface between academia and the NHS as part of that, and I have worked with Tim in NHS Improvement on providing input to the accelerated access review and its implementation.

In response to your question, "What is NHS Improvement?", it is the oversight body for NHS providers: that is, NHS trusts and foundation trusts, typically hospitals, mental health trusts and ambulance services.

Q256 **The Chairman:** Thank you. I will start with the first question. I should emphasise that our inquiry is focusing on the life sciences industrial strategy. From the evidence we have taken so far, it is clear that the key player in the strategy, if it is going to succeed, is the NHS. In that respect I have two questions. First, what do you think of the life sciences industrial strategy? Secondly, we are told that the NHS is to have a key role in it, so who in the NHS should lead in co-ordinating the activities of the health service in relation to the strategy?

Professor Tim Evans: As an NHS director and chairman of research and development for 10 years, I was involved indirectly with the Cooksey review. The current strategy is hugely important and in many respects represents a logical extension of the Cooksey report and how the landscape of research and development in the health sciences has

changed and therefore needs to accommodate the evolution of the process in this country. It is a hugely important report.

On the question of which organisations in the NHS need to be involved, I think that all of them do. NHS England of course has a hugely important role in commissioning and co-ordinating the academic health sciences networks that are referred to in the report, but NHS Improvement, particularly with regard to its recent role in data collection and the evaluation of clinical services—the aspects of its work to which I referred—will also be very important. There are, fortunately or unfortunately, many other bodies, particularly those involved in regulation and oversight, that will also be relevant. Perhaps co-ordinating all those efforts into one focused oversight board, as to my mind is recommended by the report, would seem to be extremely important.

Lastly, there is also very much a public engagement part to the work, and I am sure that the Palace of Westminster will play a crucial role in that.

The Chairman: Who should lead on this and therefore be accountable?

Miles Scott: The key thing, as Tim says, is for all of the different arm's-length bodies to be brought together. NHS England can provide a useful co-ordinating function in doing that. All the bodies would look to the overall leadership of the Department of Health, and in particular the Chief Medical Officer and the Chief Scientific Officer within the NHS itself. NHS England can provide that overarching co-ordinating function, but as Tim says, the most important thing is to ensure that all the different bodies that have a stake in this are brought into the discussions at an early stage.

The Chairman: What role should the Secretary of State for Health have in it?

Miles Scott: Clearly, the Secretary of State has an important role in setting policy and determining how the NHS can support the life sciences industrial strategy. It is then for the different arm's-length bodies to take that forward.

Professor Tim Evans: I agree with Miles. There may be a role for the Department of Health and the Secretary of State. I would not presume to have anything more than a personal rather than corporate opinion here in saying, "Right, we are going to adopt this strategy as a policy". The obvious bodies to lead that policy will be, for example, NHS Improvement and NHS England. I hope that in any event they will start to work much more closely together.

The Chairman: In your view, have these discussions already taken place?

Professor Tim Evans: At my level, yes, but I am not sure that they have at the higher level. Miles is an executive director.

Miles Scott: There are discussions and the active product has been focused mostly on the accelerated access review. There has been a lot of emphasis on how to take that forward. Then there is a series of

associated initiatives including innovation and technology payments and innovation and technology tariffs that you will have heard about from some of the other witnesses who have appeared before the Committee.

The Chairman: My question was about discussions that focus particularly on the life sciences industrial strategy and the role that the NHS will have in it. Both of you have mentioned the various organisations, and of course the NHS is stuffed full of them. Have they all had a joint meeting to discuss this strategy and what individuals' roles and accountability will be?

Miles Scott: There have been on the accelerated access review, definitely. I am not aware of what conversations have been had on the life sciences industrial strategy overall. I would anticipate that they have been held, but I have not been party to them.

Professor Tim Evans: There have been definite discussions at my level with, for example, the Chief Clinical Information Officer and the Chief Scientific Officer about specific aspects of the report and how we can take those forward. One example, which I will be happy to brief you on later if necessary, is laboratories imaging data.

There have most definitely been co-ordinated discussions on aspects, but as Miles has said, I am not sure if there has been an overall discussion about the report itself.

Baroness Morgan of Huyton: I want to try to understand this better. In previous evidence we have tried to pin down aspects of co-ordination and accountability. Obviously there will be a life sciences advisory group, panel or whatever. Are you saying that your understanding is that there will be a separate health co-ordinating body? Does that feed into the life sciences group? What is the proposal for the structure?

Professor Tim Evans: I am not aware of a precise outline of a particular structure that there would be. Certainly, again at my level, at the local level, we have discussed at length how this might occur: academic health sciences networks, the so-called GIRFT—getting it right first time—clinical initiative, imaging laboratories and so on. However, I fear that I have not been privy to how an overarching structure might work.

Q257 **Lord Renfrew of Kaimsthorn:** The National Health Service could be a powerful mechanism for stimulating and benefiting from innovation, but we have received quite a lot of evidence suggesting that the NHS is sometimes poor at adopting new innovations. Could you suggest why that is and what can be done to improve the position?

Miles Scott: That observation attracts a lot of support and many people would absolutely agree with it. There are numerous reasons why innovation is not taken up. There are real and perceived barriers to funding. There are lots of issues to do with individual choice and clinical practice and whether institutions and even individuals wish to take advantage of a particular innovation. The life sciences industrial strategy, the accelerated access review and many other reports have tried to

identify the particular national interventions that could sort out issues to do with regulation, funding or whatever it may be.

My observation is that very many innovations get access to the NHS that are then taken up by parts of the health service, but rather fewer innovations are then spread widely across the NHS. One way of getting that spread is, of course, by using some national initiatives; Professor Evans has talked about the GIRFT programme, which will be very important in spreading innovations.

But, equally, it is really important that we take advantage of clinical networks and the ways in which clinical practice develops as opposed to some kind of national policy. There are good examples of clinical networks all over the country, and the leaders of and participants in those networks are much more likely than any one national push on a particular technology to adopt things and spread them in their own local context. Taking advantage of those networks is important but perhaps does not get as much attention in the industrial strategy.

Professor Tim Evans: There are two other initiatives that could occur. First, trusts could regard research as a service line. In my view they should, and certainly in my trust they would. There is a budget to deliver research to certain metrics rather than just thinking that the research will fit in somewhere. It is a service line, like delivering any clinical service.

Secondly, the GIRFT initiative involves the royal colleges and professional societies and says, "This is what 'good' looks like". Incorporating innovation, new developments, and new devices and their use into "This is what 'good' looks like" is immensely powerful, because it is a clinically-led initiative as well.

Baroness Young of Old Scone: May I ask about GIRFT—a wonderful acronym? It is quite painstaking and takes time. My understanding is that it does not actually cover many specialties yet. What is the rate limiter on it? If we really wanted to see an exponential increase in innovation uptake through that route, what could make it happen a lot faster than is currently the case?

Professor Tim Evans: If I may say so, it has entered an accelerated phase over the past three to four months. There are now 32 specialties, which cover around 90% to 95%-plus of the clinical activity that occurs in secondary care. Around eight or nine of the initiatives are already on visits, and of course they visit every trust in England, so the clinicians encounter them. It is also data driven. The data is immensely powerful in saying, "These are the variations in clinical practice"—referred to, of course, in the strategy—"that we need to manage and iron out to ensure that all patients get the service they should have and that it is delivered by a workforce that has the competencies and the composition to deliver it as effectively as it can, supported by the diagnostics". That is the long story.

I think that by next May, certainly by next spring, all the GIRFT programmes will be up and running. My colleague Professor Tim Briggs, to whom I would pay credit, is working very hard to ensure that that

occurs, along with the royal colleges and the professional societies, which give it the professional weight that the Lord Chairman in particular will be aware of as an ex-president of a college and which the clinicians will be aware of.

Baroness Young of Old Scone: Orthopaedics has done its stuff, has it? Have any other specialties proven the worth of the programme?

Professor Tim Evans: They have indeed. For general surgery, vascular surgery, urology and spinal surgery, the reports are in press and should be released very early in the new year. The orthopaedics programme is in its second and third iterations and has already shown—I could wax lyrical about it, I am sure—very significant results in reducing variability and actually reducing litigation costs. That means, of course, that patients are doing better, which is the aim of the programme overall.

Lord Kakkar: You mentioned that the existing clinical networks were not properly recognised in the industrial strategy in terms of what they might contribute to it. Why was that? Were they not consulted, or was it not brought to the attention of Sir John Bell's review that they exist?

Miles Scott: Obviously I cannot speak for the people who wrote the strategy, but it is understandable that the strategy would focus on national mechanisms and interventions. There is a lot of focus on how innovations and new technologies can get access into the NHS in the first place. My experience is that, particularly through the teaching and specialist centres, a lot of new technologies do get adopted. The greater challenge is spreading those across the whole of the NHS. That is where I think the local clinical networks have a strong role to play.

Lord Kakkar: When you say "local clinical networks", what do you mean? Do you mean the academic health science networks or something beyond those?

Miles Scott: The academic health science networks have an important role to play, and in their relicensing it is very important that they focus on the spread of innovation as opposed to more innovation and discovery. One of the challenges for AHSNs is that many of those who are interested in innovation are personally more interested in discovery than they are in spreading other people's discoveries to their colleagues. But they have an important role to play.

I would observe that other networks such as education and research networks can be really powerful in spreading innovation. I shared an example earlier with Professor Evans. I refer to the rheumatology practice in West and North Yorkshire. There is a really established clinical network that is led by the academic unit in the University of Leeds. It has a combination of clinical, education and research work that is all done together and spread not just to the teaching hospitals in Leeds but to every district hospital in North and West Yorkshire. They have been an early adopter of new technology and one of the areas of the country that most rapidly took up anti-TNF and biological therapies for rheumatology patients. They punch hugely above their weight in publications and international meetings.

That network exists. It does not need to be created and does not need an administrator or a national function to direct people. It is a vibrant clinical network that will take up innovations and is the kind of network that it is important we do not overlook. Of course we must look at new national initiatives, but it is really important that those initiatives do not overlook the local networks that already exist.

Lord Oxburgh: It would be very helpful to the Committee if you could let us have a list, subsequently, of examples of new technologies that are cost-effective and offer clinical improvements as well as being less expensive that have not been widely adopted. I ask because it is quite an important consideration here. We would welcome any comments on why that should be.

Professor Tim Evans: I am a huge admirer of NICE, but there are some examples of where the advantages of a particular intervention are regarded as marginal, and others of where it is a matter of time, adoption and commissioning. I would say this, wouldn't I, but last week in the *New England Journal of Medicine* the first two papers were from my own institution and on cystic fibrosis. The concentration of some scientific effort away from large populations to populations that are in specific need of interventions means in those circumstances that there is a more rapid uptake.

Where there are many more options, for example in asthma or hypertension, clinicians, in my own experience, become used to dealing with the programmes that they are dealing with. There are two ways in which professionally we can increase uptake as well as the ways that Miles has suggested. The first is involving pharmacy and pharmacists very much more in clinical practice. They are hugely educated individuals who can say, "We should be using this", or "Our protocol says that we should be using that". Secondly, to repeat myself, the GIRFT programme, particularly in the non-surgical specialties and for devices in those specialties, will focus on pharmacy and the uptake of drugs of proven effectiveness.

The Chairman: Baroness Young has a very short question.

Baroness Young of Old Scone: The elephant in the room in all this for me is the role of CCGs. My experience is that quite often CCGs are not helpful in driving forward the introduction of innovation. Is that genuine, and, if so, what should the role of CCGs be? Also, why is no one talking about them? We have not had a single witness who has mentioned CCGs in this entire inquiry, to my memory.

The Chairman: There was one who said that they should be abolished.

Miles Scott: Clearly, local commissioners are important. We have the payment systems that we have, and sometimes it is difficult for people to adopt and implement new technologies, whatever they may be, under their payment mechanisms. There are good examples around the country of where individual CCGs and their predecessor bodies have adapted local payment mechanisms to enable new technologies to be introduced. You will be aware of the range of national initiatives running at the moment,

such as the innovation and technology tariff, innovation and technology payments and so on.

The critical thing that everyone is clear about the case for a particular technology, why it is beneficial to patients and its overarching economics. The spread of robotic surgery is a really interesting example of that. For a number of years in radical pelvic surgery, for example, the recommendation had been for people to pursue robotic techniques. People have wanted to introduce robots in many places, but they have struggled to make the case locally and to pull together all the scientific and financial data.

Q258 **Baroness Morgan of Huyton:** You have both painted quite a rosy picture, in a sense, and maybe that is fair, because obviously positive stuff is happening all over the place, but in doing that you have also laid out the biggest challenge, which is how to spread innovation. We have had quite a lot of evidence over recent weeks about the difficulties with budget silos, which are making the introduction of innovation very difficult, particularly where budgets are tight and staffing is stretched. Finding the slack to prove the case for an innovation and therefore to challenge is clearly difficult. We have heard that from the health side of the story and from pharma. As a regulator, how can you help in this? What is your role in making it easier to promote innovation? To an extent, we all know that what is measured gets done, so what will the role be so that it does not become a stranglehold and does not stifle innovation but, rather, encourages it to happen on the ground?

Professor Tim Evans: The first route is the GIRFT initiative; I repeat myself there. Imaging and data collection are hugely powerful. One tool we have that will emerge, and is starting to do so now, is the use of resources assessment which the CQC has asked NHSI to lead on. I actually piloted this and have now started to do some inspections against metrics. One of the questions that we are starting to ask is this: what is your R&D strategy? Is it a service line, is it developed, how do you network, and so on? Developing the use of resources questions—we are back to collecting data and inspections, I fear—and making it a central part of "Are you safe in your caring and is it effective?" as well as the use of resources and how people are using new technologies and interventions could be very powerful and should be used as such.

Baroness Morgan of Huyton: Is there a danger that that will be a set package of innovations and you mark people on whether they have been introduced rather than encouraging further innovation?

Professor Tim Evans: That is a crucial differential, which Miles has touched on. There is discovery, innovation and translation and there is adoption and spread. Most trusts, we would hope, will apply the intervention using the therapy rather than developing new ones. It is a crucial intervention and one that is stated very clearly in the strategy; each step, and who has responsibility for each step, will be very important indeed. For most trusts, I suggest that it is about adoption and application, not further innovation.

Lord Kakkar: Coming back to the question of budgets, you have mentioned a number of initiatives that will help the spread of diffusion. Do you think that there is sufficient funding in the system for the life sciences strategy to be delivered credibly, based upon the adoption of innovation that is envisaged?

Miles Scott: I am sure that in industry there will be an aspiration for the NHS to take up all sorts of exciting technologies at a greater rate than people will be able to afford. We operate in a very financially constrained environment, and most of the NICE approvals for medicines are made on the basis that there is an incremental cost of introducing the new technology. Clearly, where the new technology enables practice to be more productive, the challenge is how to release that productivity and the funding that will pay for the innovation. Where innovations are not in fact more productive, more effective and better for patients, that will hit up against a total budget envelope, and there is no way around that.

The Chairman: We could go round in circles on this. The simple question was: is there enough funding in the NHS to deliver on the life sciences strategy? From what you are saying, the answer is no.

Professor Tim Evans: That is absolutely right, Lord Chairman, in specific areas. The major area, from my viewpoint, is IT. The kinds of networks that are envisaged for histopathology digitisation, molecular tests, genetics and so on will rely entirely upon the interoperability of laboratory management systems, imaging systems and so on. Indeed, in a submission to the Department of Health, NHSI has costed that up. But IT, data collection and interoperability are the key limiting steps for this strategy, excellent though it is, in applying it.

The Chairman: Health improvement is a crucial part of the NHS and the NHS is a crucial part of delivering the strategy. You are saying that unless there is extra investment in particular areas, the strategy cannot be delivered.

Professor Tim Evans: In full, I would say so, yes.

Q259 **Lord Mair:** May I build on Baroness Morgan's question and ask you about NHS England's 12 actions to support and apply research in the NHS and what the role of NHS Improvement will be? I will focus in particular on the last three actions, which come under the title, "Improve and simplify our adoption ecosystem". Number 10 is: "Use NHS England's specialised commissioning and commercial medicines clout, combined with NICE appraisals, to drive faster uptake of affordable, high impact innovation". Where will NHS Improvement play a part in that? How do you see it ensuring the delivery of that particular action? It is very germane to what you said in answer to Baroness Morgan. What will NHS Improvement do to ensure that that action is delivered?

Miles Scott: NHS Improvement will input into a number of the recommendations in different ways. On the payment-related ones, we will support NHS England by ensuring that it is linked into the tariff. We talked previously about collecting data, publishing it through the Model Hospital portal and using it in guidance through the GIRFT programme

and other programmes. In supporting the academic health science networks, NHS Improvement works with NHS England to make sure that the relicensing system is set up in a way that meets the requirements of the strategy and of the accelerated access review. There are a number of different ways in which we come in on this.

Professor Tim Evans: The GIRFT team had a meeting last week with Lord O'Shaughnessy. The team included me, of course, and Professor Tim Briggs, but also Professor David Haslam and Professor Gillian Leng from NICE, whom we are seeing a good deal of. We are starting to say that for the non-surgical GIRFT specialties, it is clear that in medicines, the early adoption of NICE-approved medications will be crucial. In January we will have a large meeting at the Royal College of Physicians that will focus entirely on that: specifically, how will NICE link with NHS Improvement through the GIRFT programmes, particularly the non-surgical ones, to speed up access to—not the funding of, I fear; we did not regard that as our immediate area of responsibility—adoption of and spread of the use of new medicines? The alignment of GIRFT and NICE is going to be crucial in this.

Lord Mair: It seems to me that the key words in action number 10 are "drive faster uptake of affordable, high impact innovation". What is your view about that?

Professor Tim Evans: It is right and crucial that we do that and that we focus on specific areas. If I may, and this is in accordance with public demand and the third sector through the James Lind Alliance, we will have to prioritise and seek advice on the clinical conditions that are regarded by the public as well as epidemiologists and public health consultants as being crucial areas of focus. This is in the report, and it is particularly relevant to the UK and its life sciences strategy. I am very pleased to say that there are no longer large numbers of treatment-naive—the scientific term—patients for hypertension, asthma and so on. But in areas of British industry we must pick, through this process, the conditions where we can have the most impact. Cancer, of course, is one that merits early detection.

Q260 **Lord Hunt of Chesterton:** What is your assessment of the challenges in implementing the accelerated access review and the benefits of doing so? What happens if it is not implemented? There was an article in the *Evening Standard* the other day about finance people. If you accelerate things too fast, it can get a bit chaotic, so is there some kind of limit to that process? You also have to be considered to be very secure.

We have not asked this question of previous witnesses. If you look at the process of innovation and consider comparable European-type medical systems, would you like to comment on the speed at which they are implementing new methods? We have not had much discussion about that. Are you comparing methods and looking at how they are working?

Miles Scott: Perhaps Professor Evans can answer the second part of that question. On the first part, the challenge of realising the ambitions of the accelerated access review, I am afraid that I must largely repeat what I

said earlier. The big challenge will be not so much identifying the innovations or getting them introduced but getting them spread universally across the country. We have not had good mechanisms for doing that. The accelerated access review puts the academic health science networks at the centre of that, which is absolutely fine. We have to make sure that that is its main job.

Lord Hunt of Chesterton: So there is no danger of it going too fast. It is a question of everyone moving forward together.

Miles Scott: Exactly. I gave the example of rheumatology in Yorkshire, but there are lots and lots of examples all over the country of the very rapid spread of new treatments, new technologies and new pathways from an academic centre across the whole of the local area. Equally, there are many examples of where that does not happen. There are many more examples of good adoption and uptake of particular technologies within a specialist centre, which is great for that hospital's patients but does not touch the sides when it comes to some of its partner hospitals.

Professor Tim Evans: There is the issue of other jurisdictions. I worked in the United States for a while, and the group of hospitals I was involved with would say, "This is what we are going to do. This is the therapy we are going to adopt, this is the protocol that we are going to adopt", and so on. I suspect, and this is a personal rather than a corporate point of view, that the devolution—a term I use advisedly—in Manchester and in other areas will afford the same level of responsibility to groups of trusts. Whether we call them STPs, devolution groups or whatever is a different point, but there will be increased local ownership and groups of hospitals working together. They must therefore adopt a common system of protocols—I hope it will be those that are dictated by GIRFT—that will introduce new systems locally but to a group of hospitals.

Lord Hunt of Chesterton: Europe is very different from the United States, is it not?

Professor Tim Evans: It is indeed. Again, this is probably a hybrid that falls somewhere between the two. There are groups of hospitals working together and some jurisdictions, such as the Netherlands, where there are co-payment systems for hospital admissions. The model across Europe is variable.

The Chairman: Baroness Young has another short question.

Baroness Young of Old Scone: It does seem that the NHS is drinking in the last chance saloon, and have we not got to the point where the these acknowledged good practices that save money should simply be mandated? We have a National Health Service and the "N" is there for a reason.

Professor Tim Evans: I completely agree—and I would, being in a national regulator. The emphasis in Lord Carter's report and its application is aimed at doing that.

The Chairman: How old is Lord Carter's review now?

Professor Tim Evans: It was accepted in June 2016 and we started to implement it 13 months ago when we moved to NHS Improvement in October/November 2016.

Lord Maxton: Perhaps I may say first that I am not registered with the NHS in England; I am registered with a GP in Scotland. There are four NHSs within the United Kingdom. To what extent does your organisation cover all of them? You used the term "devolution", but of course we already have devolution. However, there is also overlap. As you have said, our Chairman has been the president of a professional organisation that of course covers the whole of the United Kingdom.

Professor Tim Evans: Indeed. While Lord Carter's report, which I refer to again because many of the initiatives we have been discussing come from it, purposely dealt with England, I wrote to the chief medical officers in Scotland, Wales and Northern Ireland saying, "This is how we plan to progress". I asked whether there were lessons that we could learn and which we could discuss. Clearly there is the cross-border movement of patients, particularly between Wales and some hospitals in the west of England, and of course in the Borders region of the north. I am pleased to say that we have had some extremely constructive discussions as to how that might occur. The GIRFT initiative has been adopted in Scotland. Professor Briggs has been to all the trusts in Scotland, and in the areas of data imaging and laboratories in particular we are looking at aligning our processes.

Lord Maxton: To what extent, however, is that class-ridden? I know that if I go to my GP with something and I say, "I've already discovered who the best specialist in this area is", I will ask the GP to refer me to him. But if an ordinary patient goes to his GP, that is not necessarily the case.

Professor Tim Evans: In England, the system of choose and book enables that choice to be made. As you know, GPs are obliged to say, "Here is a list of the specialists in hospitals and you may wish to choose one from it".

The Chairman: Let us go back to the discussion of the strategy, because we have a lot to discuss about the NHS itself.

Q261 **Lord Borwick:** I want to ask about data, which you have both touched on. The strategy sets out ambitions for the use of patient data. Is the NHS ready for this level of innovation in patient data, and what does NHS Improvement do about it?

Professor Tim Evans: That is a crucial question and one that Miles will develop. In the practical sense, I think I have already alluded to the fact that more investment will be needed to cover common laboratory management systems and common reporting information systems for imaging and diagnostics. While in certain parts of the country—here I defer to Scotland—there are linked-up systems that are starting to show the benefits of data sharing that that we have been discussing and the large-population interrogation, there is a huge public-interest debate to be had.

Miles Scott: Clearly, there is a requirement for investment in technology, but as Professor Evans says, as important will be resolving the information and governance issues at the local level and not just at the national level. Sally Davies has led a very effective campaign for a number of years to speed up permissions for people to get trials up and running, but despite all the amazing work that she and her team have done, that battle has not yet been entirely won. If that is true of the enrolment of people into research studies, exactly the same issues apply to frankly more controversial issues such as how NHS data can be used to support the development and targeting of new technologies at populations and so on.

Any recommendations that you make about the use of data that already exists need to be accompanied by very clear recommendations that give people permission locally to act upon that data. In fact, it is not just about giving them permission; we must require them to do so. Otherwise, I fear that a natural conservatism will mean that people will be very careful and cautious about what they do with their local data. That will slow the whole enterprise down.

Professor Tim Evans: It is the only part of the report that is light on detail. There is an excellent section covering the support of the public for the strategy, but it does not set out a practical way of enabling consent to be given to the sharing of data. It would be a huge break in what is an excellent strategy if that is not addressed.

Lord Borwick: You talked about the extra resources that are needed for this. Can you give us an indication of the amount that you reckon is involved, perhaps as a percentage or something of that sort?

Professor Tim Evans: Our estimation for linking imaging and laboratory services, thus facilitating the movement of tissue and blood samples to expert specialists, is around £200 million.

Baroness Morgan of Huyton: I have two tiny but interrelated questions. First, Professor Evans, you have just described what would be a national instruction, in a sense. Are you therefore saying that the risk relating to the use of data will be handled nationally rather than locally? Secondly, do you think there needs to be a potential flipside to that, which would be to incentivise people locally to co-operate? In a time of stretched resources, is there any role for incentivising people to co-operate on the data and be more proactive?

Professor Tim Evans: I can answer the second question while Miles can answer the first. You are absolutely right about incentivising people. The third sector has a huge role to play here. Specific charities are active in this area, and many of them work locally—there is the Scottish Stroke Association, for example—which is very important. Using those vehicles and convincing them through the Association of Medical Research Charities that this is an important initiative both locally and nationally is extremely important.

The Chairman: We have had evidence from NHS England, the Chief Medical Officer and the Chief Scientific Officer. We now have had

evidence from you. We have had evidence from NHS trusts. We have had evidence from other organisations and individuals within the NHS. The one message we have had, and you have given the same again today, is that there is no co-ordinated activity or discussions related to the life sciences industrial strategy, what the NHS's role in it will be, how it will be implemented, who will be responsible for doing so, and who will be accountable. Is that true?

Professor Tim Evans: In my view, absolutely.

Miles Scott: I agree that it does not have the profile that I think this Committee would like it to have. We are responsible for the oversight of NHS trusts and NHS foundation trusts, and we have to be clear that the immediate issues of patient safety, operational performance and so on are dealt with.

The Chairman: But at the same time, other evidence that we have heard—we have yet to take evidence from Ministers—is that without the NHS delivering on this, the industrial strategy is not going to happen. If it does not happen, the British economy is likely to suffer significantly. This was number one of the 10 pillars of the industrial strategy which the Prime Minister unveiled, yet you are implying that other business is more important than this.

Miles Scott: I would suggest that the proposals in the strategy, as they are set out, would enable a lot of that to be addressed. Yes, you are right that as things stand this is not the centrepiece of what the NHS is trying to do. It is not a significant part of our engagement with NHS trusts and NHS foundation trusts in and of itself. However, the strategy makes a series of recommendations about how to overcome some of the practicalities. While promoting the industrial strategy is not the first order of business, securing productivity is. Professor Evans has demonstrated how through the GIRFT initiative we can align the two. It is more about how we align this with the other agendas related to safety, productivity and so on.

The Chairman: So at least that will help to drive the strategy. Thank you both very much indeed for coming. It has been very helpful to learn about what NHS Improvement is doing to help improve health outcomes in the NHS, but the clear message is that there needs to be a bit more emphasis on co-ordination so far as the strategy is concerned.