Innovation: Aligning Ambition, Capacity and Access

Innovate Stage

12th September 2017

09:00 – 10:00

Speakers:

- Jenny Kleeman, journalist and documentary-maker (stage host)
- Sir Andrew Dillon - Chief Executive, National Institute for Health and Care Excellence (NICE)
- Baroness Delyth Morgan - Chief Executive, Breast Cancer Now
- John Stewart - Director of Specialised Commissioning, NHS England
- Amanda Sullivan - Chief Officer, Mansfield and Ashfield CCG

Jenny:

Good morning everybody. Welcome back to NHS England's Health and Care Innovation Expo 2017. I'm Jenny Kleeman and I am the host of the Innovate Stage today. I hope you have all enjoyed yesterday and are full of excitement and ideas for today. We have a really interesting varied set of sessions on the stage today, ranging from NICE to new towns. We are also going to be live streaming the keynote speeches that are taking place on the other stage, so if the other stage is packed out, if you want to have spaces spread out, this is a good place to be watching those live streams.

Before we begin, a bit of housekeeping. Again, if you hear an alarm it won't be a drill, so please go to the nearest fire exit or follow the people in the white tshirts. They will be able to tell you what you do, they are a great source of information for any questions you might have throughout the day. Do wear your badge at all times, switch your phone on to silent but I would say don't turn it off because we want you to be interacting with this session either through the app or through Glisser. You can

see the URL there, for Glisser. Glisser gives you a chance to vote, to give feedback and to ask questions in this segment. You can submit questions via Glisser, vote on which questions you would like to be asked. The way to do that through the app is you click on Glisser, day two, the Innovate Stage and select the session that you are watching.

So, without further ado, I will kick off with our first session: Innovation, aligning ambition, capacity and access, how can the NHS adopt innovative new technologies and medicines? What is the collective ambition, how can we make sure that people get the best outcomes from the resources available.

We have speaking today, Delyth Morgan, John Stewart, Amanda Sullivan, and Lisa and the session is going to be chaired by Sir Andrew Dillon Chief Executive of NICE. I will hand over to you Andrew.

Andrew:
Good morning everybody. Nine o'clock on day two of a conference, you all deserve a medal. Thanks very much for getting up and coming along. We are apparently billed as a warm up act for a couple of people called Jeremy Hunt and Simon Stevens. Personally, I have always seen them as the support act for the people who are going to be talking to you this morning. You will be able to judge and this session in the brochures also billed as being frank and powerful. If you needed waking up on day two of the conference this is definitely the place to be.

I think that aligning the NHS's ambition with the capacity that it has available to absorb, and to apply all of the innovative techniques and technologies that are being made available to it, is the central challenge facing the service. Now you might think that is a pretty rarefied challenge. Isn't the reality all about reconciling the resources available to the wider responsibilities that the health and care system have got? That is also true, but ultimately it is the tools that we need to acquire that we can apply to delivering the best outcomes, and over time better outcomes, that make the difference to patients which is why I think this reconciliation of our ambition - what we say to patients that we are about, that we think the NHS and the wider

health and care system are here to do - with our real ability to do it. Which is fundamentally important with our ability to provide what we say we are, which is a world class health care system.

We are in a position now where, a slightly ironic position, where it has never been more available in terms of tools and techniques and forms of practice to enable us to deliver those great outcomes. Yet, we are under the tightest financial control that I can remember in the now more than 40 years that I have been working in the NHS. It is extraordinarily difficult and it is that conundrum: how do we get the best of the new things becoming available in order to deliver on our ambition to be a great health care system, in circumstances that are really financially tight? We want to offer world class services in care, but we really are struggling, I think, to meet the expectations of the people who use the NHS in the wider health care system. We want the UK to be amongst the most attractive places for the life science industry to do business. And yet they say we are a really challenging market and, in their view, we compare unfavourably in our ability to absorb the best of the new products that are coming forward when we are, when we are set against other developed health care systems in Europe and elsewhere.

So, for this session, what we want to address is how we articulate a vision, in effect an offer, to the users of the health and care system together with constructing a relationship with the life sciences industry that gives effective to that ambition, that recognises the constraints we are under, but most importantly gets the best for our service users.

Well to help us resolve that conundrum and answer those questions we have got a cracking panel. They have just been introduced to you. So, we should get on and hear what they have got to say. We've got some opening remarks from all of them and then we've got the opportunity to broaden this out into a conversation and it really would be great for you to come in on to this, either directly or through the Glisser technology, and give your views and pose any questions to any of the people on the panel or indeed to me.

We will kick off with Delyth Morgan.

Delyth:

Thank you very much Andrew. In many ways for me, you really have crystallised what the kind of challenges and the key questions for us all must surely be.

The context for me is I am here as Chief Executive of a medical research charity. We focus on breast cancer, so we, our constituency if you like, is the hundreds of thousands of people affected by breast cancer who raise money for research so that they can help to create a future where all those who are affected by breast cancer can live and live well. That is what we are here for. We fund about a third of all the medical breast cancer research that goes on in the UK, anything from psychosocial research, looking at the impact of acupuncture or cognitive behavioural therapy in treatment of hot flushes through to molecular biology and gene discovery and so on. We fund all of that. We also fund work looking at improving services through our patient-led service improvement tool called the Service Pledge.

For us, the question of innovation, and how to make innovation real, is very very broad but probably the thing that most comes to mind, and particularly for this morning, we run a campaign around access to medicines.

So, if you have incurable breast cancer, and 11,000 odd women die of breast cancer in the UK every year, so there are a lot of women experiencing incurable secondary metastatic advanced breast cancer, and access to new and innovative treatments is extremely important to them. For some it is a life and death matter. So it is a very emotive subject but it is one that brings us into close contact with the regulatory system, and with the pharmaceutical industry, and all those who care about this issue.

We are very much aware there is a real tension between the need to adopt innovation and the financial pressures that the NHS is experiencing. When we say

we want to have a world class NHS, we want to have world class cancer services. And one of the real challenges is that in order to achieve that patients need to have access to the newest treatments as they become available in comparison to other countries. That is something that has been very difficult to make happen. We had the Cancer Drug Fund. You'll know that didn't work. It overran its budget.

Now we have a new system which NICE are managing and leading which allows for some flexibility. A lot of the previous treatments that were managed through the Cancer Drug Fund are now going through the system, they are being evaluated and making it on to baseline commissioning. That has required a lot of flexibility, a lot of hard work, on the part of everybody. It is absolutely to be welcomed that we're transitioning into a much more structured way of dealing with this that can lead to a greater fairness, I think, throughout the system. But we are also worried that that isn't quite going to work for everything.

There are some big, important, treatments coming down the line for breast cancer. There are combination treatments which don't work very well in the system that we've got. And also now we have a new hurdle that has to be overcome for NICE approved drugs, they now have to get through what is called a budget impact test, which will mean the more expensive drugs may actually be held back simply because of that, because of the number of people they might help.

Just one last point, because I know everyone else wants to talk. I want to really stress that from my point of view innovation doesn't have to be about expensive drugs. It also is about access to, say, for example, off patent drugs where there's new evidence that shows these can be used in a different way that can really make a difference. From our experience, that is just as hard to make happen as it is to get some of these very expensive treatments through. So, in a system that is really struggling with financial pressures, innovation is really hard and I think that's very difficult for everyone involved, including patients

Andrew:

Thanks very much. Lisa, what about the perspective from life science industries?

Lisa:

Thank you Andrew and good morning everyone. It's an absolute pleasure to be invited here. One of the reasons I was keen to come here and do this conversation is representing the life sciences industry, our life blood is innovation. We have to effectively reinvent our companies, we have to innovate, that is the only reason we exist. If we don't develop new medicines, we are not adding any value. So it is central to what we represent as an industry.

I think the importance of being here is that innovation really only thrives when you have real engagement and real partnership. Whether that's with the NHS and clinicians to develop medicines, with patients to understand what is needed or whether it is with many of you in the healthcare systems to implement those and make sure we get the full value out of them, to my mind it is partnership. In any partnership there will be tensions, but I think the way you resolve those tensions is talking openly and engaging, and that's why I'm very pleased to be here and to be able to talk about these very real challenges.

Firstly, innovation driven by collaboration. There is an enormous amount of innovation in the life sciences industry at the moment, some very exciting developments. Whether it is genomics, advanced therapies, the way we're using data, immune-oncology, personalised healthcare, there are very exciting developments. It might interest you to know that in 2015 93 new medicines went through regulatory approval.

So there is this constant flow, and it's not just medicines, it's all sorts of innovations. I'll be talking from the perspective of medicines but you can apply this to any other innovations that you are thinking about. Quite a lot of people have said to me that innovation doesn't really count unless it gets used, right? Because it just sits on the shelf and it is just an academic exercise. So, unless it is adopted and used by patients we're never going to release the value. To me, it is how do we take that flow

of demographic challenges, the challenges the NHS has and this flow of innovation and really get value out of it for patients. That's the core of the challenge.

So, we're incredibly supportive as an industry of working with the NHS to get that value out. I think there are great examples around just walking through the room this morning to get to this stage of that. Some I can talk about and am happy to talk about. I think when we work together in partnership we can deliver great value. I'll give you some examples because getting the right drug to the right patient at the right time is what it is about. It is not about giving every medicine to everybody in this age. When we do that, I think it can have great results.

For example, one project - and there are many of them around, many in the NHS, but just to give a flavour for those of you who haven't worked with the industry so well on the adoption side - we did a project with Leeds, with the cardio vascular centre at the Trust, working across their pathway. If you put in place a consultant pharmacologist to look at the patients and work across the pathway, we were able to show that you could increase the adherence of patients, you could reduce the readmissions by 29% and you could show that 90% of patients discharged didn't need to see a consultant cardiologist and therefore you released a lot of capacity. So, you've increased capacity, increased patients outcomes, 29% reduction in readmissions to hospital within the month, increased the patient experience. That win, win, win example does exist. Not in all cases, but what you would see is that the medicine spend went up somewhat.

I think we have to get away from just looking at medicine spend in isolation and thinking about how can you work together on a joint objective of the patient outcome across the pathway. There are examples of starting how we do that. I would like to think how we could do more contracting to make sure that we are incentivised to work with the NHS to deliver the value on the ground. That's one thought to how we could tackle this challenge.

Andrew said that we are falling behind as a nation on the adoption of medicine. I

think that is a reality. It is a tension in the system and we need to find some solutions. For example, in other similar countries, you know, if 100 patients had access to a new medicine in the first year, the equivalent in the UK would be 18. That is very clear that we are not as fast and we don't get the uptake of new medicines and that's with a common pricing philosophy. So, I think how we assess the value of medicines is very important. I would absolutely say it is important that we assess the value of medicines. I'm not proposing that all medicines get implemented everywhere in the NHS. But where we do have medicines assessed once, and sometimes we assess them many, many times, that's something else we could maybe simplify, I think we need to make sure we are driving the adoption and we have aligned incentives around patients outcomes to drive that. I think that would help.

So, there's no easy fix to this. I could talk about budgets. I think there is an argument to be had around the NHS funding. I've made that argument personally a number of times. But I think even within a fixed budget, how those budgets are organised is important and whether they're around a pathway or just around a medicine, I think is something that can help us unlock innovation. I think we should be talking about how we can contract with medicines, with the life sciences industry, to help up lock that value. I think that's one way to manage the tension. The other is how do we help scale up these small joint working agreements, like the one I talked about in Leeds to really help adoption? There's one example we've done across cardiovascular which is now a national rollout patients programme and I think that starts to show a model about how we can scale up adoption together at scale across the NHS. For me those are some of the areas we need to be talking about to solve this tension.

Andrew:

Thank you very much. We now have a couple of NHS perspectives. We're going to go first to Amanda Sullivan. Amanda, Lisa just said innovation doesn't have any impact at all unless it is adopted locally and used. It is kind of down to you isn't it?

Amanda:

Thank you. I'm speaking from a commissioner perspective and spend much of my day planning services and brokering partnerships to actually transform the way that we work. So, I do have a slightly different perspective, including having to balance some very difficult priorities and balance the books. So, I'll probably come from a slightly different angle. That said, in commissioning world innovation has never been more important than it is today, but I share some of the frustrations that have been expressed and I share Andrew's view that is really is quite difficult at the moment to implement that innovation.

So, what I see is that we need innovation to be systematically managed across all of its different stages. So as ideas are generated, filtered, tested, and then rolled out, from a commissioning perspective, that is really very fragmented as things currently stand. The different stages of innovation occur in different sectors, different organisations and people have different business objectives, different timelines working to, and so that adds to the complexities of rolling out innovation, not to mention some of the political aspects as well. What we really need is a mind-set that values innovation within NHS organisations that are often head down and struggling to deliver today's agenda. We need to filter the excitement and the value of innovation into our day to day working. At the moment, I think it is differentially valued in different sectors in different parts of the NHS. In my ideal state, we would have a co-ordinated and embedded way of pulling innovation through all the stages that are navigated across all the sectors. That would overcome some of the sector disruptive interfaces that we currently see so I would regard that as really important. I know there are bodies that try and do that. I think we could work together differently to support that.

So, can we afford innovation? As a commissioner, trying to balance the books, there are clearly innovations that add cost to the NHS either by treating new conditions or by keeping people alive for longer or by treating conditions with a better outcome or a better patient experience with additional costs. There are obviously difficult value judgments to be made around that. So, from a commissioning perspective, what I'm at the moment really focused on is innovations that can increase value in healthcare,

either through doing things more effectively or by not doing things that aren't effective. That means as we introduce new treatments we also need to get better at stopping doing the things that we actually aren't adding value with. And they can be difficult to stop, lots of cultural and tradition and valued things that people do. So, we do need to stop things as readily as we start things. I think if we focused on what is effective and eradicated unwarranted clinical variation that could go a long way in itself to solving the financial problems that we have in the NHS.

I also think in order to really maximise innovation, we need to lose some sacred cows and challenge our thinking. So lots of talk at the moment around winter. Perhaps controversially, I would say do we really need more beds for winter or do we need a better way of managing a population that is becoming increasingly frail outside of hospital? Because we know that people in acute trusts for longer than they need to be, that is actually quite damaging to health and independence and muscle mass. I would perhaps suggest that we need a different narrative around these things.

And again maybe controversially, I think we have over medicalised some things and over time treatments have been brought in or medical perspectives on different social and life events which if we went back to a more co-design thing with the people who actually use the services I think we would end up with less intervention. There is evidence for that around elective surgery and also things like crisis cafes. When service users and carers actually design the services they are not following the same medical model and can often be cheaper and more effective. I also think in terms of our planning we need to mainstream health economics because there is a significant evidence base that isn't getting factored into short term planning and the annual kind of commissioning cycle.

So, what are the barriers? I think the key ones are the fragmentation across different sectors and what I would call the disruptive interfaces between the different sectors. And we are working to different time lines and priorities on that. Sometimes we are also working to different versions of the truth. So the more joined up we can make

the data or the more we can challenge the beliefs around what's actually underneath the data the better.

In terms of how we overcome this – I think finding a mechanism that helps navigate ideas generation through to roll out and to recognise, as had been mentioned, that spread doesn't happen by chance, it has to be systematically built into the way that we roll out innovation. It is not an obvious consequence of some good research findings or good ideas.

Finally, I think we need to instil belief in to front line workers – and that is in commissioning and clinical areas - that the innovation is actually a solution that can help with today's problems rather than solving something a bit esoteric down the line.

Andrew:
Thanks very much Amanda. So John, £16 billion worth of public money, surely this is not a problem is it?

John:
Thanks Andrew. As Andrew said, I am responsible for a budget of £16.4bn, looking after 150 different, very diverse, services that make up the overall specialised commissioning portfolio. I think it is fair to say Andrew that the NHS has a really proud history of supporting innovation, both in terms of developing new scientific insights and rolling out new technologies. And I think nowhere is that more apparent than in specialised services.

Later today, we will be publishing a short pamphlet that shines a spotlight on just some of the amazing investments and innovations we have made in new cutting-edge treatments over the last 12 months or so. To give a couple of examples, in 2016 two patients funded by NHS England became some of the first in the world to benefit from pioneering hand and upper arm transplants. These transplants offer patients the only method of reconstruction that looks and functions like a normal limb. Through our innovative commissioning and evaluation programme 10 patients

are undergoing pioneering surgery to tackle an inherited disease that causes blindness. Early studies have demonstrated that the bionic eye restores a degree of function to patients who have suffered complete blindness due to the condition.

Of course, we don't just invest huge amounts in services. As you said, of the 16.4 billion we spend in specialised commissioning 4 billion will be spent on drugs alone. Many of these drugs are hugely innovative and for patients with very rare conditions. So, for example, we have extended access recently for drugs for kidney transplant patients whose disease has returned, enabling them to lead a more normal life free of dialysis. And for 20-30 children diagnosed with a rare condition causing benign brain tumours to grow, through our commissioning policy on everolimus qualify of life can now be dramatically improved. So we are making some real improvements there, including for patients with rare conditions.

If you look beyond that it is worth touching on where we are in cancer drugs. Since we reformed the cancer drugs fund just over 12 months ago, 17 new indications have now received positive appraisals from NICE and are now benefiting from our new interim funding arrangements which have so far meant that over 2,000 patients have been approved to start treatment many months earlier than they would have done under the previous arrangements. So, I think we are making progress.

But the development of innovative technologies and treatments such as those I mentioned, whilst great news for patients doesn't come without challenges. Even those technologies proven to be cost effective can sometimes come with a hefty price tag as we know.

There is no doubt that it can be challenging for the NHS to balance that. In a way, I think this is really important, that it doesn't inappropriately divert or unfairly divert funds away from other important clinical areas. But we're already beginning to make progress and address some of the challenges.

In particular I wanted to talk about the progress NHS England is making now and

building its commercial capacity and capability in this space. This was something where there was a strong call from the independently chaired accelerated access review and I think has been reaffirmed by the recently published life sciences industrial strategy and the importance of NHS England boosting its capacity and capability in this area.

So, the purpose of it is really to ensure that we can actually begin to engage with industry much earlier in the product development cycle and the assessment and appraisal process. And then to work with companies really to develop new innovative and more flexible funding models that can help both manage the growing affordability challenges we are facing but also do that in a way that can ensure swift access for patients to new medicines. This is very much work in progress, but we're beginning to see I think some win-win-win situations; wins for the patients, wins for taxpayers and wins for those companies who are willing to work with us constructively to find new solutions. A good example of this actually is the recent deal that we did on kadcyla for the treatment of breast cancer, where NHS England and Roche were able to arrange a confidential reimbursement mechanism for this drug, now guaranteeing its continued routine commissioning, which is I know a huge relief for a lot of patients.

In addition, we've also managed to innovate alternative commercial agreements, such as outcome based payments, to find a way that both pharma and the NHS can begin to work together to enable patients access to some of these highly specialised treatments as well. We've already signed a handful of these funding arrangements, partly supported by NICE, and I think this trend is expected to grow.

So, I guess a good example of this and the way we are working innovatively with industry is the first of a kind managed access agreement we did with the company Alexion to secure a drug for the treatment of paediatric onset hypophosphatasia. This is a really important departure I think from the usual funding approaches because it is based on the on-going impact that that treatment is beginning to have on the patient's health and quality of life.

Just to finish, if we look ahead over the next five years, what do I hope to see? Three things stand out and feel key in particular. Firstly, I think we need to do everything we can to support the ever more personalised targeted medicine agenda, with genomic testing as standard practice. We have to capitalise on the strong foundations laid by the 100,000 Genomes project, which is heading towards us seeing almost a thousand samples every single week being collected for whole genome sequencing. A huge achievement, we need to build on that.

Secondly, a truly data driven system with collection of real world evidence about patient outcomes which can both drive forward our understanding of diseases but also begin to underpin these innovative reimbursement models we keep hearing about and want to take forward.

And then thirdly, I think we need a more agile investment model with the NHS more easily able to disinvest in obsolete technologies and far quicker and slicker in switching to cheaper generic or biosimilar alternatives where it is appropriate to do so.

That is going to be really key to finding the financial head room to afford some of these new and expensive but cost-effective innovations. So, there is clearly lots more to do. We are on a journey, but I am optimistic that the NHS will be able to continue with the huge progress I think it has made in making sure that patients can have access to these cutting-edge treatments and medicines.

Andrew:

Thank you, really good to end on an optimistic note. It does seem to me that, having painted a bleak picture in my introduction about the enormous challenge that the service is facing with its huge financial constraints, set against the extraordinary array of new stuff we could be using.

What we have heard from the panel gives us an indication that between them the

elements of the ecosystem that you all represent we can work in a way that you are describing and we really do have the potential to sort this problem out - at least the majority of it.

Okay so we need to open this up for questions. I think I have lost my fetching pink bud somewhere down here, so I do apologise if you can't hear me. I will speak up a bit.

So, we've got a couple of questions coming in. I don't know if they are up on the screen already, but if my technical assistant can do that. I have got the first question anyway which is about this narrative of constant cost containment. Does that hinder the economic potential of research and innovation in the UK? So this is more aligned towards the life sciences strategy and the agreement the Government wants to reach with the industry to make the UK a great place for the industry to come from. Lisa, you are the obvious person to start with on this one?

Lisa:

Yes thanks. I think the most important thing about the life sciences strategy that was published last week was this idea, and you mentioned the word Andrew, of an ecosystem. If all of the parts of the ecosystem are playing well together, and that absolutely includes the NHS, then I think it can work. Without the NHS being fully part of the life sciences strategy, it is very difficult to see how the life sciences industry in the UK can thrive. We know that the amount of life sciences activity going on in the UK is staggering compared to many other countries. The numbers of investments in science in the UK are very significant, so £4 or 5bn a year is invested into the UK in terms of life sciences.

So, if that is against a backdrop that none of the innovations are going to get used and there isn't any money to use them and the NHS can't adopt them then I do think that has a very negative tone. What I hope, from the new life sciences strategy and some of the comments that John has talked about, is that if you can get this partnership, you can get this focus on outcomes and releasing the value that we can

strive to be in the top quartile of adoptions of new medicines. And I think that is a really important ambition. Because if you want to be the top life sciences destination in the world and attract the science, attract the trials, attract all of the taxpayer benefits that you have from having a thriving industry, then actually using the innovations is quite important as part of that ambition.

So, if that is what we want then we need to work together to deliver on those. If we just go down the lowest cost procurement route - at the end of the day, the NHS is monopolistic purchaser – we'll either get to the stage where the UK just doesn't have access to the latest innovations, we won't have the standard of care and then you won't be able to do the trials. You can get into a negative cycle.

What I'm here to say is that there is a positive vision in the life sciences industry of how we can get away from this situation. But if it is just about costs containment there are also potentially negative scenarios and we have seen that in other countries

Delyth:
Just to throw in my thoughts about the life sciences strategy and the importance of the accelerated strategy review and all of that coming together with the Government response which I understand is going to be a sector deal. From our point of view, thinking about the patient interests here, it is really important that we keep our clinical trial expertise really thriving in this country. We know that patients who are looked after in centres of excellence that regularly run in high volumes of clinical trials do better, whether they are in the trials or not. That, for me, is a really great example of how being looked after in an institution that is innovating, that is interested in all that goes on around that, really makes a difference for all the patients involved in that setting.

I think we do have this elephant in the room, which is Brexit. That will have a massive impact on research and the research community. Some of our key, leading research institutes have very, very high proportion of scientists who are European

Union citizens. So, all of that. We need the Government to really come forward with a fantastic sector deal that is going to support what the NHS needs and support a thriving life sciences industry because it is patients who benefit from all of this.

Andrew:

Amanda, is there a risk that this narrative about cost containment, no money, everything is too tight, ultimately wares people down to the point where they give up hope. There's no point, we can't afford anything, we're not going to think about it, we are going to month by month square the circle on the bottom line and keep our fingers crossed. Is there a risk of that happening?

Amanda:

I do think there's a risk and I do think there's some evidence of that happening in different parts of the NHS. It comes back to having that better alignment and visibility of that work in not only the academic institutions within, sort of, teaching trusts but also the across the way that services are planned as well. I think that could help to bridge quite a lot of that gap. So, an example, which I know where there's lack of alignment is around excess treatment costs. We have a process for that and it comes through, but even that is quite challenging because when the bids are put together it could be quite some time before the costs are actually being incurred. It may or may not come to fruition depending on the funding decisions by the bodies that support the research. So, it's really not aligned. I know that in some parts of the country there are frustrations that there are no mechanisms for considering excess treatment costs within the commissioning cycle. So, I think it is a risk. There is some evidence but I think if there was that greater visibility and alignment and some skin in the game for planners of health services as well as in the academic elements of the NHS, I think that could help.

Andrew:

We have another question here, which suggests that those in the most deprived areas live shorter lives. I think the essence of the question is how do we make sure innovation reaches and targets people who are living in the most deprived areas,

who are facing shorter life expectancy, who have the least opportunity. Your CCGs are responsible for a really diverse set of communities, aren't they? Do you see that as an issue? Is there any way in which you can see innovation being targeted to help those particular communities?

Amanda:

Yes. It absolutely is an issue. I think there's a few ways we can support that. One is that we target innovation and research to specific health and inequality issues. An example we use, we have a very deprived community who had high limb amputation rates for diabetes, so there's a been lot of innovation targeted specifically at those most deprived groups and some evidence that has helped with health benefits. So, it is about understanding that different sectors of our population have differential resources to seek those out and to purposely bring those resources to people who have less of their own resources to call upon.

Andrew:

John, there's a question about risk sharing. How do we ensure a publicly funded welfare service links with industry in a risk sharing way? Some of the things you were saying in your introductory remarks suggested that you're looking creatively with industry at different ways of sharing risk.

John:

To be honest Andrew I don't think so far the NHS has been particularly good at thinking about those kind of approaches and working with industry. That is precisely why it is important that within NHS England we are looking at how we build that commercial capacity and capability. At the moment, we haven't got the people with the right skills to enter into that dialogue with companies. I think we are absolutely committed to looking at doing that going forward. I mentioned earlier that we are beginning to do, in a small number of areas, some of these more innovative outcomes based contracts, which I guess is already beginning to share the risk with industry, and I think later today or maybe already we've set out a little bit more about the progress we're making on our kind of commissioning of some of the new drugs

for Hepatitis C, which are truly transformative and curing people. With now new pay for cure clauses built into them where we only pay if the drug is effective. So I think a work in progress very much, but something that we need to work closely with.

Lisa:

I can follow on from that. I do think this risk sharing and outcome based contracting, particularly for specialised commissioning, is really important going forward. I was talking earlier about partnership and these kind of contracts can only work if you have two parties who have a genuinely common intent around the outcomes and around patients to do the right thing, because they're long term agreements and you have to have that level of trust, and risk sharing is something new. What I found is that even if we have a good conversation about that, to translate that on the ground into real contracts requires a whole different set of capabilities. And I think that's where we need to look. So for example, to your point about diabetes, we've looked at can we do not just in specialised commissioning but risk based contracting in diabetes because you don't even want people to get to the point of amputations. 90% of the cost of diabetes is in the hospital and so if you can get that early prevention but it's very difficult. We have talked over two years to different CCGs, about how can you have a contract that's more than pay for a pill? So, whilst you know that's the outcome you want, how does the NHS adopt it? Do you need something about the capability and probably the funding flows and incentives on people making those decisions if we're going to do this. That's the kind of conversation we have to have.

Just on Delyth's point, the variation of care. I want to stress that innovation can in itself improve care. With ovarian cancer, if you are treated in a regional centre that does trial, your survival outcomes are 45% better if you are treated in the top ten centres where they do trial work than other regions. If we want equality, it is spreading that benefit you get from participating in the latest world class care. We do see that regional variation with people heavily involved in that agenda or not. And that really shows in the patient outcomes. So, I underline that point absolutely.

Andrew:

Panel, thank you very much indeed for your contributions. Audience, thank you very much for coming along and for posing those questions. Sorry that we haven't been able to answer all of them. It is ever thus in these sort of sessions. We hope that you have enjoyed it, that we have woken you up, that we have been a decent warm up act for the stars to come during the rest of the day.