HOUSE OF LORDS

Preterm Birth Committee

Corrected oral evidence: Preterm birth

Monday 18 March 2024

3.10 pm

Watch the meeting

Members present: Lord Patel (The Chair); Baroness Blackstone; Viscount Colville of Culross; Baroness Cumberlege; Lord Hampton; Baroness Hughes of Stretford; Baroness Owen of Alderley Edge; Baroness Seccombe; Baroness Thornhill; Lord Winston; Baroness Wyld.

Evidence Session No. 11 Heard in Public Questions 149 - 165

Witnesses

I: Dr Sundeep Harigopal, Clinical Lead, Northern Neonatal Network; Kelly Harvey, Senior Lead Nurse, North West Neonatal Operational Delivery Network; Professor Lawrence Impey, Clinical Lead, Thames Valley Maternity and Fetal Medicine Network.

Examination of witnesses

Dr Sundeep Harigopal, Kelly Harvey and Professor Lawrence Impey.

Q149 **The Chair:** Good afternoon. Welcome, and thank you for coming today to help us with this inquiry. Before we move on to the questions, I would be grateful if you could introduce yourselves for the record and say what your position is.

Professor Lawrence Impey: Good afternoon. I am a consultant obstetrician at the John Radcliffe Hospital in Oxford, and I am clinical lead for our local Thames Valley Maternity Network.

Dr Sundeep Harigopal: Good afternoon. I am a neonatologist consultant with the Royal Victoria Infirmary in Newcastle, which is a tertiary neonatal unit. I am also the clinical lead for the Northern Neonatal Network.

Kelly Harvey: Good afternoon. I am a neonatal nurse. I am currently the senior lead nurse and acting director for the North West Neonatal Operational Delivery Network. I was also the nursing adviser for the national neonatal GIRFT—Getting It Right First Time—programme, and I

am a trustee and board member of the national Neonatal Nurses Association.

The Chair: Thank you. We will get on to questions straightaway and I know you will give us direct answers.

Q150 **Baroness Thornhill:** Thank you for coming today. I think this will be a really interesting area. It would help us to have a clear picture of the roles of neonatal, maternal and fetal networks in delivering high-quality care, and to segue into whether we have a growing body of evidence as to the benefits that they each bring. Professor Impey, perhaps you could paint the general picture, and your colleagues can chip in if they feel there are any gaps.

Professor Lawrence Impey: I will not say too much about neonatal networks, but they are much the most advanced so my colleagues will be able to talk about those. They cover different geographical areas. Thames Valley, for instance, has one neonatal network, but our fetal medicine network or our maternal medicine network will not cover exactly the same geographical area. That in itself is not a problem.

The maternity networks are the second most advanced. They have not been mandated by NHS England, but they have been funded and strongly encouraged, so there are now 16 maternity networks. These are for pregnancies where the mother has very significant medical complications, and they are very important because those medical complications are a major cause of maternal death in this country and any other. It is important that we have specialisation and centralisation of pregnancies with very severe medical problems.

The least developed are the fetal medicine networks. Fetal medicine is the care of pregnancies with significant fetal complications or at risk of fetal complications, and this merges into the rest of maternity care. Back in 2012, we thought that there was going to be specialised commissioning and a service specification was drawn up. Since then, there has been very little progress, and what fetal medicine networks there are are informal ones that are run largely by the local tertiary referral centre, like ours. We have an informal arrangement, and meetings and pathways of referral fall in our area for the hospitals that refer to us.

Dr Sundeep Harigopal: Neonatal service care provision has evolved over time. We have had networks for almost 20 years now. One of the first neonatal networks began 20 years ago, so it is quite mature at this moment. The idea was to ensure that we could deliver the highest quality of care in a geographical area where the neonatal units could co-ordinate care between each other.

The primary role of the ODN is to ensure that we develop, implement and monitor pathways, and ensure that the babies are looked after in the right hospital in the right place at the right time, closest to their home. The other role of the neonatal network is to have an oversight over

quality dashboards. That could include the capacity of a unit, the activities of the unit, quality indicators—for example, preterm optimisation or mortality. Then they co-ordinate with bodies such as NHS England or the providers, depending on the issues.

If the issues relate to capacity and workforce, you will be co-ordinating with NHS England or specialist commissioning to try to get funding for those. If it is to do with quality indicators, we co-ordinate with the respective providers to try to see how we can support them. This could be in the form of providing guidelines, drawing up policies, and drawing up pathways. The ODN's other role is to co-ordinate care with maternity networks or the local maternity neonatal systems to ensure that there is a seamless movement of mums from one unit to the other—for example, if they have to go to a neonatal intensive care unit.

There are three levels of neonatal intensive care—the neonatal intensive care unit for babies from 22 weeks upwards; the local neonatal unit, which is for babies from 27 weeks upwards; and special care for babies at 32 weeks upwards—to ensure that the babies are delivered in the right place.

Kelly Harvey: Lots of what has been said is absolutely right. I see an additional role for us as a neonatal network in the engagement with providers—ensuring that we are their voice. We are in a complex system, with integrated care boards, other neonatal networks and other networks and pathways for babies across the region, so it is important that providers build a relationship with us as a network. That is our strength.

When we talk about the maturity of neonatal networks in comparison to other networks, it is that longevity, it is absolutely the relationship we have built with our providers, it is the understanding of our regional pathways and the nuances in our regions. We have a clear role in hearing the parent voice and understanding what it feels like to go through a neonatal experience and what that means lifelong. As my colleagues have said, it is incredibly important to understand the need to centralise some services and where babies should be cared for. Having birth in the right place is incredibly important.

We have a clear role in understanding that, not only setting those pathways out but monitoring adherence to those and specialised commissioning. Having a service specification as a neonatal ODN, which puts us in a much stronger position than our fetal network colleagues, with clear deliverables, allows us to support the relationship with our providers and ensures that we represent them and our families in our regions.

Q151 **Baroness Thornhill:** Thank you. Can I just pick apart some of your comments? It seems to me that there have been a lot of changes and a lot of reviews, particularly in the last 10 years, and lots of acronyms that we have all struggled to get to grips with. Professor Impey, you said that the geographical differences were not a problem, but it reads to me like "Let a thousand flowers bloom". If this works here and this works there,

that is okay. In short, what is the network's statutory status? Does it matter if they have one or not? I guess what I am saying is: where are the problems of co-ordination, and what could be improved?

Professor Lawrence Impey: As far as I am aware, neonatal networks are the only ones with statutory status. The medical problems in pregnancy networks are funded, although I understand that funding is not long term, and fetal medicine networks are entirely unfunded.

On areas for improvement, it is clear that fetal medicine networks need to have some funding to allow referral pathways to be embedded and followed by everyone. One of the big problems with fetal medicine is that the money is not following the pregnancy. For our hospital, we are referred pregnancies from five or six other units, some of them outside the Thames Valley region, because we have built a relationship with those clinicians and they know we have areas of expertise. We do not get paid at all for those patients, and it is the same with medical problems in pregnancy depending on their LMNS.

The other problem, certainly in the world of maternity, is that we feel under a lot of scrutiny. That is quite right, but that scrutiny comes at a price in staff morale, recruitment and retention, all the things that very much impact the safety of the service. If we accept complicated pregnancies from other hospitals, that puts our perinatal mortality rate up, and the next thing we have is some other body saying, "Why are you losing so many babies?" It has stopped being in hospitals' interests—I hope we do not work like this, but we could—to take the more complex pregnancies and that is a big problem.

Baroness Thornhill: Yes, I can see that.

Dr Sundeep Harigopal: The neonatal networks are fairly influential, but at the same time you need to have a good relationship with the providers and the specialist commissioning, especially when you are looking at the need for reconfiguration or redesignation of services, such as when a unit does not meet service specifications or standards. An example could be an LNU or a neonatal intensive care unit not providing an adequate amount of activity, in which case it would not meet the service specifications for a neonatal intensive care unit.

If you need to redesignate, the network by itself does not have the power to change that. The providers have the ability to contest that, and the commissioners—in my experience, having done two reconfigurations—may want to take the path of least resistance, which is completely understandable.

Is it a statutory body and could it have more of a say? In general, it is a very influential body, but whether we can bring about the change we want is debatable.

Baroness Thornhill: Nurse Harvey, anything to add?

Kelly Harvey: I think that what has happened to neonatal networks in more recent times has added to our strength—having a service specification, having a relationship with specialised commissioning, having clear deliverables that mean that in an organisation there is a requirement to engage with us to a certain degree in order to achieve the deliverables for specialised commissioning. Specialised commissioning pays for neonatal services, so that gives us strength.

Additional strength has come from the national neonatal critical care review, which has recognised the value of networks in improving pathways of care and, ultimately, outcomes for babies, and from being in the GIRFT report so that neonatal gets it right first time. There are clear recommendations from NHS England to neonatal networks to achieve higher-quality care in neonatal services, and there is being named as part of the NHS long-term plan. All that adds to our strength. It is like saying, "How could you manage without a neonatal network?" The resource that comes from that and the national guidance on the service specification gives us that strength.

We fit into a much more complex system where, at the moment, it seems that people are battling with each other for who is the most powerful. We have the regional perinatal networks that feed into the national maternity transformation programme. We have the local maternity and neonatal system that sits in the ICB. The integrated care boards are funding the maternity part of the journey but not the neonatal part of the journey. All those complexities mean that providers tend to turn to the network in neonatal circumstances to unpick some of that complexity, to help us to hear about the progress they are making, and to support them in some of those conversations.

It is right that we have a place in that statutory body, that support of specialised commissioning, but the value of networks is the relationships that we have made with our providers and that we do not sit in a much clearer assurance role, like the one the local maternity and neonatal systems have moved into, where it feels slightly more punitive; you have to engage with them, because they are assuring. Our providers choose to engage with us because we break down some of that complexity and can share their successes.

Baroness Thornhill: That is interesting. Thank you.

Q152 **The Chair:** Who are the members of the neonatal network? We will start with nurses.

Kelly Harvey: It is our providers. Our network represents the 22 neonatal units in the north-west of England. In addition, there are the families; we have a parent voice in our network, and it is vital to hear that. When I talk about my organisation as a network, I mean that we are the representatives of the providers in our region.

The Chair: Who are the members in the fetal medicine side of networks?

Professor Lawrence Impey: Almost whoever wants to be. It comes from the tertiary unit that builds it up, and the interested obstetricians in the referring hospitals are invited to take part. We are kind of making this up as we go along, because there is no funding and no statutory requirement for it.

Q153 **The Chair:** What we all heard is neonatal networks are much more effective at being influential with the commissioners too. So where do you get your funding, and why are you so influential, and why are maternal fetal medicine units not influential?

Professor Lawrence Impey: It depends how you define influential. If they are managing to get clinicians to do the right thing, that is a very good definition of influential, and I hope that the fetal medicine networks that have been set up do exactly that.

The Chair: It is much more than that in neonatal ones.

Kelly Harvey: That is because the resource comes from specialised commissioning. We are commissioned to do what we do, and we have a service specification that we would be challenged by our specialised commissioning colleagues on if we did not achieve those deliverables. Those deliverables are in line with the things that we have talked about—improving quality and pathways, the values of networks, ensuring that babies are delivered in the right place, improving outcomes.

We have a network team that currently includes a multidisciplinary team of allied health professionals, nurses, medics, and data—we have a big focus on collecting data in the neonatal world, so that we can demonstrate the improvements that we can make. With that resource, we can put time and energy into those relationships with providers and evidence the value of what we are bringing in.

The Chair: So your efforts have succeeded in being recognised and the funding comes from the commissioning, which is not the same as maternal neonatal medicine. Correct?

Professor Lawrence Impey: That is a fair way of putting it, yes.

Q154 **Baroness Owen of Alderley Edge:** Could you please outline how the networks have developed in recent years and what improvements you feel could be made to them?

Professor Lawrence Impey: I will start with an overview. The neonatal networks developed because they were commanded, if you like; they were funded. That has made a big difference, because money is important in these circumstances. The medical disorders in pregnancy networks, which are NHS England funded but not statutory, have come in in the last few years, and the fetal medicine networks are very informal but have sometimes been very long standing.

Obviously, they all matter a lot to each other, because fetal medicine and maternal medicine end up causing preterm birth or dealing with

pregnancies at risk of preterm birth, so there is a lot of relationship with them but, as Lord Patel has suggested, fetal medicine is the poor relation.

Dr Sundeep Harigopal: Going back to Lord Patel's previous question about how neonatal networks have had more influence than the maternity or fetal medicine networks, we did not have that much influence five, seven, 10 years ago. It came about because there were service specifications that units did not meet, so the commissioners were held responsible: "If these units are not meeting the service specifications and things do not go well there, what are you going to do about it?" That is how the networks subsequently had more influence to bring about change.

To your question about how it has evolved, when I started we had just three network officers—a clinical lead, a lead nurse and a manager. Now we have over 15 officers in the network, and that has come about through more funding. Various reviews have shown the importance of funding, and now we have funding for care co-ordinators and for lead nurses in each of the AHPs, the allied health professions, and funding for data managers as well as for quality improvement nurses. There has been more funding and they have developed as a result.

There is more psychology support, so parents have more support at the moment. There is specific training, and care co-ordinators can now co-ordinate the movement of babies as well as care for babies across the network. There is more training available because there are more officers available, and there is more monitoring. This is how the networks have evolved, but it has taken time for us to reach that place.

Kelly Harvey: I agree. We were networks in 2004 and we were funded in 2013. Development and organisational relationships were started before the funding came, and there was an element of proving the worth of networks before you could push for them to be mandated.

The more we have been recognised as functioning and improving outcomes, the more we are recognised in some national reports, such as the maternity transformation programme work, the neonatal critical care review, and the GIRFT report. As they have come through, our teams have increasingly recognised that if you do elements of your work at regional and network level with a true understanding of what is happening on the ground, you can effect change. Those are the developments that we have seen.

I would be wrong not to say that we are not perfect as neonatal networks. I think we may come across as believing that everything is solved in the neonatal world, and it is not. I would have to say we benefit at times from our host relationship. As neonatal networks we are hosted in a provider. Some of us have excellent relationships. I have an excellent relationship with our host provider, Alder Hey, in Liverpool, and I have a good relationship with the corporate team. That is not replicated everywhere, so sometimes there can be challenges.

As networks, we work regionally. When you are hosted in an organisation, that can challenge the way the network functions. We are talking to you about England. The devolved nations' networks are not as established as they are in England. In Northern Ireland, in Wales, and so on, there is no mandated neonatal network. There is no even playing field.

We have been very lucky that, in the last three to four years since the neonatal critical care review, our network teams have grown exponentially. As a network team, we are now able to role model what a local organisational team should include: medical, nursing, allied health professionals, psychology, pharmacy in some areas, and a focus on data and how we collect our outcomes.

We must further develop those relationships over the life course. As has already been articulated, a preterm birth does not happen on its own, so it is important that we offer preconception care to the mother, and care while a mother is pregnant, as well as offering care to the entire family while they are in a neonatal service. It is also incredibly important to recognise the transition to paediatrics. Neonatal patients are generally paediatric patients. They have an impact on hospital admissions, and the trauma that is caused by a neonatal journey has an impact on the life course of the whole family and on school age and access to education.

Until we start to see that entire life course and recognise that it is not just about fixing one part of a pathway to neonatal care or across preterm birth but a life course, and measure the impact of that, it is difficult to show, when we all come together as a region or nationally, the value of the improvements we can make in the quality of care that we offer.

Q155 **Baroness Owen of Alderley Edge:** Thank you. Just for the record, because we have touched on it, the maternal and fetal medicine networks are obviously less developed than the neonatal counterparts, but what are the main changes required to address this?

Kelly Harvey: In order to bring us on to a level playing field, they have to be recognised in the same way that neonatal networks are. There has to be a service specification. There have to be clear deliverables, and resource has to come with that. Once that happens, we can start to share what we do. We pay for data in neonatal services, for example. I would love to be able to say that I can follow maternity or preconception into neonates, into paediatrics. Until everybody is resourced in the same way and recognised as being as important as everybody else and able to come together at regional and national level, we will not be on a level playing field. If we could do that, we could do so much more work.

Baroness Owen of Alderley Edge: Where is that recognition falling down? In what part of the process? Who is not recognising them?

Kelly Harvey: I can only speak for neonates. We are recognised from a commissioner perspective, so the value of neonatal networks is

recognised by specialised commissioning and by NHS England as required. A requirement means that it has to be resourced, I suppose. I am sure Professor Impey could demonstrate where they are perhaps not being recognised.

Professor Lawrence Impey: The value of medical disorders in pregnancy—mothers with disease—is now being recognised. It is not statutory, but it has got funded into the 16 networks. That is working very well. I am not a maternal medic, but it is funded in Oxford. A senior midwife is funded. There is a consultant network lead. There is a consultant on call offering advice to other units if they have a very sick mother. If that can be embedded, the funding can be permanent. Data is so important; if one can have data on the denominators as well as the numerators, the overall number of people, it could go very nicely indeed.

Fetal medicine has languished for many years, I think in the aftermath of the lack of specialised commissioning. In the Thames Valley region we used AHSN money. It was very little, but it worked very nicely. We set up a maternity network that deals with all areas of pregnancy, not just fetal medicine. For the big, common conditions that cause most of the baby problems, we have the same guideline in every unit in the Thames Valley so that everybody knows exactly when to transfer and, again, they have our mobile phone number. We have a very nicely functioning unit, but it probably costs about £50 a year, so we have no data, essentially because people are doing it for free, and no governance processes.

Dr Sundeep Harigopal: My observation has been that maternity networks have been late starters, but they are catching up very fast. In the last couple of years, there has been a reasonable amount of funding, and we have noticed that the LMNS, at least in my region, has developed quite rapidly and has had many more quality improvement roles and more appointments in the LMNS itself.

As for quality assurance, whether through data collection, we have developed electronic patient systems in our region. I think it is developing. They have been late starters, but they are catching up very quickly, and I suspect they will be there very soon.

Q156 **Baroness Cumberlege:** I want to ask you about the work you are doing. You come from different parts of the country, and I presume that you learn from each other, because you talked about the Northern Neonatal Network, the North West Neonatal Operational Delivery Network and the Thames Valley network. How much do you learn from each other? How much experimental stuff is going on? Are there initiatives that you have pioneered that have been successful in improving the quality of and perhaps the access to your services? Could you give us any examples?

Dr Sundeep Harigopal: I think we could do a lot better, because we still seem to work in silos to some extent between networks. The co-ordination tends to happen primarily when we have to move babies and mothers through the transport services, but I am not so sure that we

necessarily do that when it comes to sharing policies and guidelines and learning from others' experiences.

The PERIPrem Project, which I know you have heard about, comes from the south-west but became a national initiative rather than a south-west initiative or sharing of ideas from the south-west to various other networks. Similarly, the PRreCePT Project, on magnesium sulphate, was a national initiative rather than coming from a particular network. The network I come from does some things well. We had few mothers or babies transferred outside our network, because we have a good relationship in our maternity services and with the LMNS. We have an agreement not to transfer a mother out of region where a neonatal bed is available even if the maternity delivery suite is full, unless it is on divert.

We could do better at learning from each other. My regional colleagues from other networks do not have such agreements, and I am not entirely sure why. I suspect there is not a clear forum for that to happen. The British Association of Perinatal Medicine or the Clinical Reference Groups might host a meeting, but that is more about sharing information that comes from them as opposed to dissemination of information across the board.

Kelly Harvey: I disagree slightly.

The Chair: We like disagreement.

Kelly Harvey: That is potentially right for some elements of the work that we do, but, from a national perspective, as neonatal networks we have forums where the neonatal network managers will come together regularly and meet with the new NHS England neonatal nurse lead. We will talk about initiatives and share resources and information.

We have mentioned the care co-ordinator role that has come into networks. The care co-ordinator role that was allocated from the neonatal critical care review money was all about family experience. Every network has a neonatal care co-ordinator and they come together regularly to share what is going on nationally. Workforce and education leads in each network have a national forum and they share. They have worked incredibly hard on coming up with workforce collection tools. From a neonatal nursing perspective, we have a huge amount of data on the neonatal workforce, and we have been able to influence national change and national work programmes in understanding what the workforce looks like. In those specific areas, we have been able to come together as neonatal groups on a national footprint and influence change and share resources.

From a neonatal network in the north-west perspective, we have pulled together particular pieces of work such as our workforce strategy and education strategy. We have clear governance structures. We have special interest groups. We can go out into those forums and share the work that we have been able to do. The slight lack of sharing might be when we come together with our other networks such as paediatric

networks and maternal networks. Some of that is perhaps more siloed across a national perspective, but a lot of the quality improvement work that is going on at regional level can be shared when we come together.

The Chair: To be quite clear—you might correct me if I am wrong—neonatal networks encompass all the neonatology, not just preterm babies.

Kelly Harvey: Absolutely.

The Chair: So it is a whole package for all neonates, not just preterm neonates—

Kelly Harvey: It is for any baby on a neonatal unit.

The Chair: —and you have level one, level two and level three, which do not exist in maternal fetal medicine, because although there are higher-risk units, maternity units do everything. We just need to be clear about what we are talking about.

Q157 **Baroness Cumberlege:** I was interested in what you were saying. Do you share budgets? No. You work in your little siloes with the money that you have, and you do the best you can with what you have, but you do not think of going wider.

Dr Sundeep Harigopal: No, we do not do that. It is for each individual network. Even when funding comes nationally, it is allocated based on the number of births, for example. The north-west network, which might have 45,000 deliveries, will get a lot more compared to another network that has 25,000 deliveries, but you need the same number of personnel to deliver the care. There is some inequity there, but it is probably the best method they have been able to find until now.

The Chair: To be quite clear, the funding comes based on the activity, so each network has its own funding level based on its activity.

Kelly Harvey: Yes.

The Chair: All the commissioning is done like that anyway, no matter what it is.

Q158 **Lord Hampton:** We have heard a lot so far about how things like cord clamping seem to have enormous effects, but they are not done everywhere and are done at different times and so on. What part can networks play in ensuring that national guidance is followed and that care is delivered consistently?

Kelly Harvey: There are some good examples of how, when a national guideline comes out, national networks, as I said earlier, often interpret that guideline and understand its regional nuances. Something already in existence might allow you to align that with a national guideline, or it might be brand new and you will need to introduce that. As networks, we can understand the guidance and how it fits with our pathways and we can engage with our providers. You might think that when national

guidance comes out, every provider will pick that up and make sure that its local guidance matches it. That does not happen. They generally do not have the capacity to do that, because they are busy doing their clinical work. In general, the network will pick up that national guidance, understand it and perhaps make it into a regional form.

Take, for example, the difficult airway guideline from BAPM. We would bring interested clinicians together to talk through how that would be operationalised in our network. We would make that a regional guideline that is much clearer about the pathways through our transport services and so on, to make those referral processes correct. Then we would have local intelligence on that, so we would be able to feed back to our providers—review data, review exception reports and risk incidents, for example. Through our clinical effectiveness groups in the north-west, we can review challenges in particular clinical areas. So we will be able to monitor that.

A huge value of networks is the ability to offer education. If a network comes out with regional guidance, it potentially offers some education alongside that regional guidance, which means that you have brought national guidance into a forum that makes it regionally operational and you have offered some education alongside it. Then you can audit that at a regional level. That makes it much easier for an individual clinician in a service to understand the national guidance.

The example I use is the difficult airway guideline. Changes nationally in medical training mean that individuals coming out of GRID training have not necessarily intubated a preterm baby or had a lot of exposure to that. We as a network can hear that voice from our providers and see that the number of intubation attempts on babies is increasing. We can see a gap in education. Then, as a network team alongside our providers, we can think about how we make this more real and how we change how we manage airways in smaller units so that that happens more safely and we can escalate appropriately. Our intelligence about what happens regionally allows us to make that national guidance much more accessible.

Lord Hampton: Do your staff have time to do this training? We hear that, with the lack of manpower around, people are stretched.

Kelly Harvey: Absolutely. Everybody is stretched. We do everything we can. We are currently trying to bring in volume-targeted ventilation because we know that it is a better mode of ventilation. As a network team, we can free up capacity, if it is a priority for us, to go into a unit and offer on-site education. We have virtual webinars and different ways of accessing different groups of staff to try to make that reasonable for busy clinicians.

It is a challenge; I will not lie. The national critical care review has brought some workforce moneys into systems. Again, as a network, we can track that and understand the gaps in workforce. We know that with

the influx of training and workforce, we can start to understand the gaps and try to support them.

Dr Sundeep Harigopal: Going back specifically to delayed cord clamping, the interesting thing is that, although the intervention is done by the midwife, the data is captured on the neonatal platform because it is a maternal intervention. Therefore, there is a gap in the first place, in that an intervention that may have been given is not necessarily captured. That was a big issue in the past, and I think that gap is slowly being filled. The widespread introduction of electronic patient records such as BadgerNet across all maternity and neonatal services, which you may have heard about, is one thing we can do.

As Kelly has said, more education and educational training programmes as well as the development of guidelines have improved it. Units that had 30% compliance rates are now at closer to 60% or 70%, and some places are much higher. It is still possible that it is not as good, not necessarily because the units do not deliver that but simply because it is not captured. Over time, we hope that should improve.

You asked whether people have the time to come out for training. That probably varies between hospitals depending on their staffing levels and their matrons' ability to release time so that nursing staff can go out for training programmes. Even if it is done with webinars, nurses do not necessarily have the time allocated for them, so it has to come out of their own time if they wish to do something. That gap needs to be thought about, but it is universal for all nursing, not necessarily neonates specifically.

Professor Lawrence Impey: Data is a problem. Certainly, neonatal data often does not match well with maternity data.

Networks are a necessary result of the centralisation of expertise. They have other benefits. We have seen a problem. We did a lot of work trying to make sure that very preterm babies were all transferred in utero. You will have heard about this big thing. I do the exception reporting for our neonatal network, and in the exception reports I increasingly see a clear lack of expertise because of deskilling in the units that no longer deliver very preterm babies. We will have an even bigger gap when it will be bad if you are delivered in your local unit because of a lack of expertise and fantastic if you are transferred. We see that right across medicine.

We are now trying to go back to these units and say, "You should just scoop and run. Don't try to do anything. Put this mother in an ambulance and send her".

Lord Hampton: To scoop and run is literally to get them in an ambulance.

Professor Lawrence Impey: Yes. That is difficult to do because, at the cusp of viability, parents may not want their babies resuscitated because of a high risk of disability. The receiving hospital may have bad capacity

issues. It is all about speed. That happens increasingly in medicine, partly because of the centralisation of expertise.

Q159 **Lord Hampton:** Ms Harvey was saying that the element of networks proving the worth of networks is getting better. Professor Impey was talking about making this up as we go along. If things get rather more centralised, are we in danger of losing that Wild West where people go out and do stuff that works and then pass it back?

The Chair: Does one want a Wild West in medicine?

Kelly Harvey: For me, the value of having a network team and clear engagement is that, even as you do centralised things, you still bring in the units that perhaps feel more peripheral to that centralised service. You will always harness innovation and, rather than it being a Wild West, you give them a forum to bring that innovative thought about. I work in a peripheral service, and we cover a wide geographical patch in the north-west. We have Barrow-in-Furness and central Manchester. There are nuances to our region. You have to have all the voices at the table. The network allows that to happen; it allows every unit to have a voice.

Even though we have more centralisation—Professor Impey is right that that leads to deskilling in the peripheral units—they still feel part of a network and therefore able to call upon a friend at a bigger unit or reach into the network for some support. We would never want to stifle that innovation or not hear their voice. I hope that answers your question.

Dr Sundeep Harigopal: I think that peripheral units value networks a lot, partly, as we talked about, because of education, training, sharing of guidance and signposting them to any changes that have happened. Usually, most peripheral units have paediatricians who have a lot more to deal with. Neonatal units or special care baby units are a small part of their workload, so they are valued. They have a voice when they come to the network board meetings to talk about their issues. Often, they also have the support of the networks to bring about the changes they need.

One concern that they often have is supporting preterm babies who are born over there. The networks can provide that support through training, such as with airways support. In the past, they had to manage on their own, but now we deliver training locally. They have that extra support, and I think that they value it very much. I do not worry about deskilling them as much because of the development of networks.

Professor Lawrence Impey: In trying to answer your question, I will make a plug for funding for fetal medicine networks. A good example is a mother for whom the pregnancy seems to be getting complicated and her local hospital wants to deliver her, let us say, at 27 weeks where they can deliver her into their own neonatal unit. Fetal medicine—this is relatively advanced in our region—would say, "Actually, we should look at the mother first". We have had examples of where we have not made that mother have her baby for four, five or six weeks because we had more experience in dealing with that sort of thing.

That would never appear in any numbers or come up on a dashboard. That would just be a preterm birth in a local unit. If one has the money and the governance behind a fetal medicine network, that woman would have to be offered a transfer to us, and a much better outcome might follow. I am not sure whether that answers your question very well.

Lord Hampton: That is great. Thank you.

Q160 **The Chair:** What assistance do you get, or would expect, from your professional organisations? Professor Impey, you mentioned just now that you need more funding, and you gave an example. Clearly, in the neonatal networks, over the years you have arranged yourself into a situation where you can get the money from commissioning and made the case for better care. What is the role of professional organisations in helping you to do this?

Professor Lawrence Impey: Interest in the things that matter rather than headlines.

Dr Sundeep Harigopal: It remains to be seen whether we will get the money that we think we will get. If we have to implement the NCCR, for example, that will require a significant amount of funding. I am still not entirely certain when that will happen. I think we will have to wait and see. Until now, we have received funding, but it is for specific roles and the funding has not been as large. I think that implementing the NCCR will involve a significant amount of money and we will have to wait to see what happens.

Kelly Harvey: Similarly to Professor Impey, I would suggest that we stop looking at the headlines and focus on the improvement in quality care that could be supported.

Q161 **Baroness Blackstone:** Thank you. I must declare an interest as I chair the trustees of the Royal College of Obstetricians and Gynaecologists. Professor Impey, as the lead of a maternal and fetal network, what do you think the priorities ought to be for interventions that will reduce the numbers of preterm births?

Professor Lawrence Impey: The first general one, which is not within the remit of the medical profession, is the socioeconomic status of our population. This is very important. Most medical advances have not improved health, socioeconomic ones have.

Secondly, clearly there is a lot of research going on at the moment—and it is relatively well funded—into the origins and prevention of preterm birth, and that needs to continue.

The third priority is the role of the preterm birth clinic, which is currently used and funded in most LMNSs—the local government organisations, if you like—for women who are known to be at high risk of preterm birth to try to prevent them having a preterm birth. A number of surveillances and screening could be done, and that should probably be expanded because, as I am sure you heard already, most women who have a

preterm birth are having their first pregnancy or are not known to be high risk in the first place. Our risk ascertainment is poor.

Finally, at the moment, as we discussed outside, there is a threshold for delivering babies earlier and earlier because of the advances in neonatal care, but the people responsible for the pregnancy, whether that is the parent, the doctor or the midwife, are frightened of a stillbirth. If in a pregnancy you are running a one in 100 risk of a stillbirth, that means that you will deliver 100 babies to prevent one stillbirth. Preterm birth, even at 35 to 36 weeks, is something we should focus on. Although the risks individually are lower, the effect on the population is much greater because there are so many more women in those circumstances. If we can try to make pregnancy last as long as nature or God intended it to be and to intervene in the very high-risk women, we will have a beneficial effect on preterm birth, which will be far greater for the population than is immediately evident in statistics.

Baroness Blackstone: You are saying that some interventions, by inducing births earlier, lead to more preterm births.

Professor Lawrence Impey: Absolutely.

Baroness Blackstone: The question is: how do you reduce that?

Professor Lawrence Impey: The culture in this country and in the medical profession of a fear of stillbirth, which is understandable, is that everybody is so frightened of it that they are casting the net wider and wider.

The Chair: Wait a minute. This conversation concerns me. Are you saying that the fear of a stillbirth occurring in a preterm labour is so great that you will deliver the baby at a lower gestation when we have heard the consequences of being born at a lower gestation?

Professor Lawrence Impey: No, I am not.

The Chair: Good.

Professor Lawrence Impey: We are not talking about preterm labour. We are talking about preterm birth. Preterm birth is from 37 weeks and below. Most of our conversations concentrate on these very extreme babies at 27 weeks, when morbidity is incredibly high. However, there is considerably less obvious morbidity in later preterm gestations, and there are far more of them. I am saying that the fear of pregnancy complications is leading healthcare professionals to deliver these babies such that they become preterm births.

The Chair: Is this evidence based?

Baroness Blackstone: What the Chair is saying is: is there evidence for this? Does the data demonstrate that this happens sometimes? I know from personal experience that it does, but that is another matter.

Professor Lawrence Impey: Absolutely. A national guideline that is based on evidence with a particular condition suggests that there are lots of them: "You should deliver this baby at, say, 35 or 36 weeks". The individual risk of that pregnancy ending in stillbirth is in the region of one in 100. This happens all the time. It is evidence based because it is in a guideline and the research supports that these women are high-risk pregnancies. Nevertheless, unless it is one in one, some of those pregnancies would end preterm without a clear benefit to the baby and with some harm.

Q162 **Baroness Blackstone:** This is an interesting example of where there are obviously conflicts of objectives and it is difficult to resolve and to decide on the right decision-making. It would be interesting for the committee if you could put a bit more flesh on the advantages of these networks. You have said that they bring people with considerable expertise together, which is obvious. I am not suggesting in any way that they are talking shops. They are obviously not. Could you give us specific examples of where you have evidence that the networks have produced changes in practice that lead to better outcomes?

Professor Lawrence Impey: I will speak for the neonatal networks. There was some lovely analysis looking at births in level 3—the highest intensive care unit for babies—the ones who were transferred in and the ones already in those units. The evidence essentially was clear that there is an approximately 40% to 50% reduction in mortality if the most at-risk preterm babies are born in a unit with a level 3 neonatal unit. Some of that reduction in mortality was also before birth, suggesting that it was the maternity service that made the difference as well as the neonatal unit. That data has been around for 15 years now. That is the principal data that backed up the centralisation of neonatal services and the work that has gone into it.

Baroness Blackstone: Do you think that neonatal units should always be in the same institutions, the same hospitals, as maternity provision? There are some that are not.

Professor Lawrence Impey: In an ideal world, all hospitals would be as close as possible to a neonatal unit, because you need to be near your delivery ward, but equally a delivery ward needs to be near an intensive care unit. It is important that neonatal and maternity work closely together, and it is good that is happening at the moment, but it would be difficult if they were not in the same hospital.

Q163 **Baroness Blackstone:** You say that the fetal networks are less well funded than the maternal and neonatal ones. Is this partly a consequence of fetal medicine being a relatively new specialism? Thirty years ago, there was very little fetal medicine. I think I am right in saying that. It has been a rapidly developing specialty. Do we need to have more fetal specialists to support the expertise that you regard as important for preventing more preterm births?

Professor Lawrence Impey: Yes, I think that is right. The local neonatal intensive care units closed 10 to 12 years ago. There became only a certain number of neonatal intensive care units. There is no such thing as a fetal intensive care unit. There was not such a tangible change. We have a fetal medicine operating theatre, but we do not have such a tangible thing that is either open or closed that gives us status as that kind of unit. If there was, it might be easier to be clearer about who should go where for severe in-pregnancy problems.

Q164 **Baroness Blackstone:** What do you think the priorities should be, and should there be a lot more focus to get the results that we want, the right outcomes for reducing preterm births?

Dr Sundeep Harigopal: Professor Impey has elaborated heavily on reducing preterm birth. I think it lies in public health, because a lot of the issues are related to maternal health as well. I come from the north, where there is socioeconomic deprivation as well as quite a lot of health issues. Therefore, we have high preterm birth and high morbidities for babies in certain areas. For example, the incidence of lung disease is much greater and the babies are much smaller as a result. If there was more support for public health to improve maternal health, I suppose that would be one way to reduce preterm birth.

Kelly Harvey: From my perspective, I would probably go back to what I said about the life course, understanding the changes you can make at each stage of a preterm baby's existence, pre-conception and during pregnancy. There are also some key priorities in neonatal care. We will not avoid all preterm birth. In trying to improve preterm outcomes, we have to focus on the quality of care that is offered in neonatal units. There should be a focus on family-integrated care, where the family should support and lead the care on the neonatal unit alongside the clinicians, not as a separate entity. There is a real focus now in neonatal services on ensuring families are included from day one. We know that that leads to improved family outcomes once that baby gets discharged home.

There is also an element of quality in the additional services, as we have mentioned, such as allied health professionals and psychology, but also the safe, sustainable, well-educated workforce. We talked a bit about the availability of workforce. I think there is a recognition that we have national standards for workforce for neonatal services. If you do not meet them, the quality of care will not be as good if the staff on those neonatal units are not educated and qualified in a specialty, for example.

Although money has come in for neonatal nursing, there are not enough nurses out there who want to come into neonatal nursing, so we still have gaps. Although we have gaps in the workforce, we have a risk of lower-quality care on a unit if those nurses are not specifically educated in neonatal intensive care, even if they are not going to work in a neonatal intensive care unit. We have already identified that babies are born unexpectedly elsewhere, so it is important to ensure that the

education offered to those staff is available and accessible, and we focus very much on the recruitment and retention of the right workforce.

In order to be able to evidence the value of networks and the improvements we are making, as we have all mentioned, being able to track the data is vital. The separation between how we see neonatal data and how we see maternity data, even though we are collecting some of each other's outcomes, means that anything that we do is too difficult to evidence, so there needs to be a focus on how we improve that.

We have talked about birth in the right place, but also making sure that the baby is cared for in the right place. Transitional care services exist to ensure that you keep mother and baby together while they receive care. If they do not need to be in a neonatal unit, they will have a better outcome if they stay with their family. If they have a shorter stay in neonatal units, appropriate community outreach support will make a difference to long-term outcomes for these babies. The longer they spend on a neonatal unit away from their family, the more likely they are to have a negative outcome, maybe not in morbidity and mortality that you see at the discharge on the neonatal unit but in their life course. Those are the vital priorities for us to focus on.

Q165 **Baroness Blackstone:** Thank you. None of you has mentioned multiple pregnancies—twin and triplet pregnancies—as a risk factor. Is there anything you want to say about that and what the networks do? How do you mitigate that particular risk? You obviously cannot prevent it entirely, but is this an area in which you think that the networks have a role?

Professor Lawrence Impey: Inevitably. The high-order multiple pregnancies are less common than they used to be as fertility is better regulated in this country. A lot of the high-order pregnancies we see have had IVF overseas. In the network, we have a policy that everyone with a triplet pregnancy or not is referred straight to us at 10 weeks. At that stage we offer a selective termination to reduce the number, because it reduces the risk of preterm birth. That is standard fetal medicine procedure.

The Chair: I do not think we will go there as a subject. Will that improve the outcome? What interventions do you think are not happening that will improve the outcome for the preterm babies?

Dr Sundeep Harigopal: There are certain key priorities that we need to focus on. Workforce is one big thing. Although we are making some progress with that, Kelly has mentioned that it is not just about the numbers. It is not about saying that about 70% of the time we meet BAPM standards, for example; it is about the skill mix. At the moment, most neonatal intensive care units, despite having the numbers, are struggling with the skill mix.

The Chair: Okay, so describe what the ideal skill mix is.

Dr Sundeep Harigopal: For an intensive care unit, a baby who needs intensive care needs one nurse. It is one to one nursing itself. Often you

find that there may be a nurse looking after two babies. You have a nurse who has effectively just qualified—

The Chair: Okay, so you need a specialist nurse.

Dr Sundeep Harigopal: You need a specialist who is trained especially in neonatology and who has had some amount of experience as opposed to one who has just trained and come in to look after a very sick baby. We face that as a problem. With regards to the medical workforce—

The Chair: You could make this rather a long answer or a quick short one. Which would you prefer?

Dr Sundeep Harigopal: A short one. I will make it a short one. I think that workforce is one big issue. The other priority—

The Chair: No, the skill mix. There is a specialist nurse. Who else?

Dr Sundeep Harigopal: The doctors, the medical workforce, the junior doctors. Increasingly, the training has been shortened and, therefore, the amount of experience they have when they come in to look after very sick babies is minimal.

The Chair: Okay. Properly trained neonatologists.

Kelly Harvey: Advanced neonatal nurse practitioners, expert nurses.

The Chair: Who is an advanced neonatal practitioner as opposed to a specialist nurse?

Kelly Harvey: Generally, that nurse will have been a specialist nurse, then they move into advanced neonatal nurse practitioner, which is a further course to undertake, and then you would potentially work on the medical rota. It provides a sustainable expert workforce on your medical workforce rota rather than a rotation of doctors who do not have neonatal experience. It is a key element of workforce. Also, for me, allied health professionals to bring that quality element so you have a true multidisciplinary team, the workforce wrapped around the baby and the family to support all their needs.

The Chair: Who are they?

Kelly Harvey: That is dieticians, occupational therapists, physiotherapists, speech and language therapists, pharmacists, and clinical psychologists. All those are vital to high-quality neonatal care that will, without question, improve outcomes, as per the new neonatal critical care service spec, which identifies all those as essential parts of the neonatal workforce.

Dr Sundeep Harigopal: One of the priorities that we need to have is digital infrastructure. Currently, most units do not have the electronic patient records integrated with patient monitoring systems and it takes roughly between two to three hours for nurses to simply transcribe data that is already there on the monitors itself. It takes about one-third of the

time for each shift. Simply integrating the monitoring and the devices into the national patient records will allow a lot more time that the nurses can spend with the babies and the families rather than just having to transcribe data.

The Chair: Thank you for that. Thank you for coming this afternoon. I know that it has been a bit challenging for you, but we get more information if we challenge you a bit more.