HOUSE OF COMMONS

Health and Social Care Committee

Oral evidence: Future cancer, HC 138

Tuesday 9 January 2024

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Watch the meeting

Members present: Steve Brine (Chair); Paul Blomfield; Paul Bristow; Mrs Paulette Hamilton; Dr Caroline Johnson; Rachael Maskell; James Morris.

Questions 187 - 242

Witnesses

I: Professor David Baldwin, Consultant Respiratory Physician and Honorary Professor of Medicine, University of Nottingham; Professor David Chang, Co-Lead, Precision-Panc and Chair of Surgical Oncology, University of Glasgow; and Dr Paul Mulholland, Honorary Associate Professor, University College London, and Consultant in medical oncology, University College London Hospitals.

II: Dr Julie Gralow, Executive Vice-President and Chief Medical Officer, American Society of Clinical Oncology; and Professor Mark Lawler, Professor of Digital Health, Queen's University Belfast, Member of the Board of the European Cancer Organisation and Chair of the International Benchmarking Partnership.

Examination of witnesses

Witnesses: Professor David Baldwin, Professor David Chang and Dr Paul Mulholland.

Q187 **Chair:** Good morning. This is the Health and Social Care Committee. Welcome back after the Christmas and new year recess. Today, we continue our work with a public evidence session as part of our future cancer inquiry. This is our fifth oral evidence session of this big inquiry. We have two panels this morning, the first of which will be for about 45 minutes and then we will switch over to our second panel.

In this panel, we are interested in the role of innovation in trying to move the dial, as we say, on survival outcomes for some of the least survivable cancers. We will focus on pancreatic cancer, brain cancer and respiratory cancers, including lung cancer and mesothelioma, which sit right at the bottom of the survivability league table.

Let me introduce our first panel. We have Professor David Baldwin, consultant respiratory physician and honorary professor of medicine at the University of Nottingham; Professor David Chang, co-lead of Precision-Panc and chair of surgical oncology at the University of Glasgow; and Dr Paul Mulholland, honorary associate professor at University College London and consultant in medical oncology at University College London Hospitals.

Thank you very much for joining us; we appreciate your time. Members have lots of questions for you. This is a subject with huge public interest and we have had a big response to the inquiry so far. The Committee travelled to Singapore at the end of last year, where we found some very interesting stories and evidence, and met many Brits who trained in the NHS and are now working in Singapore, which we found interesting in itself.

Looking at the panel from left to right, may I start with you, Professor Baldwin? We are interested in what practical measures we can take to move the dial on some of the least survivable cancers. What immediate steps can the Government, and NHS England working with them, take to improve the rates of diagnosis for the least survivable cancers?

Professor Baldwin: Thank you very much indeed. This is a great opportunity to speak about lung cancer in particular; we do not often get the chance because it is a bit of a Cinderella cancer due to the prejudice against it. We have seen a lot of really good progress in this less survivable cancer, because we have focused very much on screening, prevention—to a certain extent—and early and faster diagnosis. They are the key elements that we need to focus on, because unless you have earlier and faster diagnosis, the great treatments now available—you have heard about some really important steps forward with regards to targeted and personalised treatment—are not as effective. Sometimes, they are not given at all. If there is delay in getting a patient to the point of diagnosis such that they have deteriorated—their health has

deteriorated so much because of that delay, for which there are all sorts of reasons—they cannot receive the treatment, because, if they do, it does them more harm than good.

I see that all the time in my clinical practice. It is very distressing when we now have treatment that will cause people to survive for years—it used to be just months but now the narrative has changed and, if they get their treatment, it is years—but they cannot have it because they are not fit enough, or you have seen them deteriorate on the pathway. We have been doing a lot on the aspects of early and faster diagnosis. NHS England has done a fantastic job; it has listened and put things in place.

To move the dial, as you say, we need to work on making sure that that is an efficient and implemented process, because at the moment it is not. We do not have sufficient staffing or equipment and we are not using the new technologies that are available to improve those aspects. There are a number of different things in the prevention area. The targeted lung health check programme, a screening programme for lung cancer in the UK, was finally approved by the UK National Screening Committee in September 2022. It was announced by the Government in June 2023 as a full programme in England, and is yet to be announced in terms of funding in the other UK countries. It is making an amazing difference. Already, 3,000 extra cancer patients have been diagnosed, 75% of them at stages 1 and 2, the early curative stages.

It has levelled up the social economic gradient. Astonishingly, over the period of the programme we have seen the lowest socioeconomic population quintile go from the bottom, in terms of the stage 1 and 2 rate, which is where they usually sit, to the top. We had only about 8% coverage of the population. This is not just the screened lung cancer patients; it is overall. That is because the programme was targeted initially to the highest-incidence areas for lung cancer, which also correspond to the areas of most deprived populations. The plan is to roll it out to 2028, and it looks as though we are on target to do so. It will be the first programme in the world to have such a high coverage, even though it is not the first programme to start. Hats off to the team that delivered it; it is astonishing how the cancer alliances and the clinical teams have done it. It is a real success story.

Perhaps not so much of a success story is the faster diagnosis. We were the first tumour site to have a nationally agreed optimal faster diagnosis pathway, and we now have 14 of them in NHS England. The pathway tells us how to process a patient with suspected lung cancer as fast as possible, to get them a diagnosis as fast as possible so that they can get to treatment as fast as possible. It is all about logistics; I won't go into the details. We have struggled with a few things. One is PET scanning. Over the whole of the country, the number of PET scanners we have had has been a little lacking. It has improved recently, as a result of which we can start the pathway off very quickly.

The other thing is the delay to full molecular analysis. This is the genomics issue. As you have heard in previous evidence, we now have really good genomic testing to select the type of treatment that people will get, particularly if it is systemic treatment—that is, chemotherapy, immunotherapy or molecular targeted treatment. We have to have a detailed analysis of the genomics. You have heard that genomics hubs have been introduced and that these are fantastic for patients, but unfortunately that has not been the case. In fact, we are seeing terrible delays in getting the full molecular analysis.

I am sorry to say this, but I wouldn't feel I was doing my duty to my patients if I did not say that this has been a problem. We have made some progress recently but, as one of my friends, a quite well-known oncologist at the Royal Marsden said, it is simply unacceptable to say to a patient when they come to see you for treatment, "You have to wait three to four weeks before we will know which treatment we can give you." That is what has been happening. In fact, it has often been longer than that. As I said, the patients deteriorate and, if they deteriorate, they cannot get the fantastic treatment we have.

Only recently, in June last year, we finally had an agreement whereby we would try to get the turnaround time, from acquisition of diagnostic sample to full analysis back to the doctor who is going to treat the patient, to within 14 days. That has now been agreed but it has been a real struggle to get there. We now need to implement it. There are lots of things.

Q188 **Chair:** Thank you very much. I will now move to your left, to Dr Mulholland. I suppose that Professor Baldwin has perfectly teed you up there: you did your doctoral research in genomic profiling in brain cancer. We are very interested in and often use the expression "upstream" in this inquiry. Genomic profiling is about as upstream as you can get in terms of early cancer diagnosis or markers. Building on what Professor Baldwin said, where are we at the moment on genomic profiling and how it can help us improve the timeliness of diagnosis for these least survivables?

Dr Mulholland: Thinking about glioblastoma, which affects 3,000 people a year in the UK and has an average survival of nine months, if you diagnose it earlier, it will make no difference. If you take the patients with that brain tumour and cut out half their brain, they will still die of glioblastoma. The idea of finding the tumour earlier is not the same as in other tumour types. The problem for patients with glioblastoma is the lack of treatments, and the fundamental problem is that we are not doing clinical trials in this country, or not doing sufficient trials. The key thing we need to do for brain cancer patients is to ensure that we have clinical trials.

I am very interested in genomic profiling. I did my PhD with Professor Denise Sheer at what is now CRUK, the London Research Institute. At the time, 15-plus years ago, we thought we would sequence the genome, find drugs and match them, as they have done for other tumour types. It

does not work in brain cancer. Spending money on sequencing and looking for sequences will not help this patient group. What we really need is to engage the pharmaceutical industry in doing clinical trials. It's not the question you asked, but would you mind if I talked about trials?

Q189 **Chair:** Briefly, because others want to touch on that.

Dr Mulholland: Lord O'Shaughnessy's excellent review—congratulations to everyone who took part in it—does not address the issue for brain cancer patients. The problem is that the pharmaceutical industry will not do trials for brain cancer patients; they are not interested in that patient group. It is difficult to understand why. They say there is not enough market for them and a lot of barriers, and that there has been a lot of failure with trials in brain cancer. The business arms of those companies reject applications that we make to do trials.

Lord O'Shaughnessy's review does not really help us. If the drug companies don't want to do the trials, how do we encourage and support them to want to do the trials? You will have seen that Siobhain McDonagh MP has a targeted campaign to ensure that we have more trials for brain cancer patients, because that is the only way that we are going to change the outcome for them. It is not sequencing or screening. Maybe we will come back to it, but I would like to talk about how to work with the pharmaceutical industry.

Q190 **Chair:** Fascinating. We will definitely come back to it. Professor Chang, can I ask you about personalised care with respect to pancreatic cancer patients? I think it is the second least survivable cancer in the league table. I declare my interest: my father died of it in 2019 so I know all too much about it. Talk to us about personalised care and how that can help us improve the timeliness of diagnosis for this least survivable cancer.

Professor Chang: Thank you very much for having me. Professor Baldwin has touched on a lot of the challenges we face in pancreatic cancer, except that the timeframe is even shorter. Unfortunately, more than 50% of patients succumb to the disease within three months of diagnosis. The key performance indicator of 62 days to treatment means that two months have already gone. We need faster diagnosis and treatment and to look at how we get to the CT scanner, because that is where the first critical bottleneck is. Once we get to CT scanning, we need to look at how fast it will get reported and be acted on by the multidisciplinary team. There are many different places where we can shorten the time between a single patient from primary care with symptoms or suspected symptoms being presented to the emergency department of the hospital to getting the diagnosis and subsequent correct treatment for the stage they are at.

On personalised care, one thing about pancreatic cancer that other, less survivable cancers have already slightly overcome is that, in general, a lot of people when they hear about pancreatic cancer have a nihilistic attitude towards it. It is not just the patient but clinical colleagues as

well. We need generational change in our attitude towards pancreatic cancer. Do we know enough about pancreatic cancer's molecular biology? If we do not ask that question, we will not do the sequencing or the studies and we will never understand enough about the disease. It is a bit of a Catch-22 situation. Unless we start doing the research, clinical trials and genomic analysis on this cancer, we will never find a cure for it.

Perhaps we will come back to the clinical trials a little later, because there are many novel therapeutics on the horizon that are not just pancreatic-specific. We can borrow and repurpose from other cancer types such as lung and colorectal. For sure, personalised treatment will mean a huge step forward for us when it comes to treating pancreatic cancer because everyone's disease is different. There are many drugs off the shelf that we know will work for our patients, but we need a framework for how we go from innovation all the way to implementation—a clear line of sight going from left to right.

Chair: Fascinating. Members, you heard the bits that we want to return to. I know you all have different things that you want to come to, but I know that a number of you will certainly touch on trials.

Q191 **Paul Bristow:** I declare two personal interests. First, my wife works for a political consultancy that works with the pharmaceutical industry and patient groups, and indeed brain tumour research. Secondly, my father died of a brain tumour in 2020, so I know a little about this.

I understand that the environment in each of your three specialties is different, certainly in the case of Dr Mulholland, but what is the biggest barrier to achieving the outcomes you feel would most benefit your patients? Professor Baldwin, you talked about this a little in terms of your experience, but if you had one recommendation for this inquiry, what would it be?

Professor Baldwin: That is a really tricky question because there are so many different things, but the biggest barrier affecting the most patients at the moment is the level of personnel in the medical workforce, the distribution of that personnel and the expertise that it carries. We have a big disparity in the number of people in the workforce and the number who are relatively expert in lung cancer in the UK in a geographical distribution, and to a certain extent the amount of kit that we have, because of our hub-and-spoke model.

Q192 **Paul Bristow:** Is it about the right people in the right places?

Professor Baldwin: It is about trying to address the deficiency of expertise in the general population of the medical workforce. About 70% of lung cancer patients first present to a non-hub area in England.

Q193 **Paul Bristow:** To your mind, is there an understanding of that problem among NHS England and others?

Professor Baldwin: Yes. I chair the clinical expert group, a committee with a broad representation in the specialty, and we have written a

document suggesting how we might try to address the disparity between the hubs and spokes in the provision of expertise and kit. It is in the system, but it is difficult to do because we have a workforce problem in the NHS in general and, until we address that, it is difficult to address this issue. It is there, and we are being listened to, but it would be good to see some more progress in that area.

Q194 **Paul Bristow:** Dr Mulholland, the same question to you.

Dr Mulholland: The main issue is access to drugs for clinical trials. The pharmaceutical industry may not want to do those trials, it may not be part of their portfolio, but we need to be doing trials for patients. Although the drugs belong to those companies, they have an obligation to supply them, but there is no legal obligation for them to give us drug supply. As part of her campaign, Siobhain McDonagh approached the big pharmaceutical companies and asked them for drug supply, and they said no.

It is very little for them to give drug supply for a clinical trial and it is really unacceptable that they will not help us in this campaign. We can do the trials, but we need their drugs. I firmly believe that there are treatments and cures for some of these patients and they are available now. When we think about glioblastoma and what it is, when you look at the actual tumour, there are cancer cells in there, and it is surrounded by immune cells and other cells protecting the tumour. We have the technology to examine those tumours and understand what cellular components there are, and we can then take different drugs from different companies and break down and treat the tumour.

Q195 **Paul Bristow:** To be very clear, you are saying that, in combination with drugs owned by pharmaceutical companies, through clinical trial you feel you would be able to have much better outcomes than you do right now.

Dr Mulholland: Yes.

Q196 **Paul Bristow:** Professor Chang.

Professor Chang: I echo both witnesses' previous points. We need to go back to basics sometimes. We deserve enough funding to be able to deliver the care that all these patients deserve. We deserve enough funding and workforce to make sure that we are able to diagnose and treat the right patient at the right time, in the right place. To touch on clinical trials again, in pancreatic cancer it is the same thing. We want to make the least survivable diseases an attractive area for pharma to invest in—not as a graveyard but to say, "You know what, we're going to bring these drugs and we're going to try this on that cancer type and see what happens."

The next big thing I want to bring in, which is the strength of the UK, is how we can have big and deep data-driven science. How can we have fully integrated patient information, patient response and genomic data? We generate data every day, but once it has been used for clinical

diagnosis and clinical actions it becomes archived and is seldom looked at. How can we do this in a very well-preserved privacy manner so that the community can start mining that data? There is so much information that we could learn from, to generate hypotheses and the research results that we want.

Paul Bristow: You won't be surprised that this is not the first time we have heard that. The beauty of the NHS is that it is a single provider and payer and that data exists.

Q197 **James Morris:** Dr Mulholland, I want to come back to the point about clinical trials that you have made very strongly. It sounds as though we have a classic issue of market failure, in narrow economic terms. I know that, as you said, the O'Shaughnessy review looked at the environment for clinical trials but did not specifically refer to the area that you are working in and did not make any recommendations on it. Have you had any thoughts about how we might address that market failure?

Dr Mulholland: The review by Lord O'Shaughnessy looked at commercial studies. It looked from the point of view that there are drug companies that want to do trials, and the NHS, looking globally, says, "We want to do those trials for you; we want them to be for our patients." That is fantastic, and we need that environment. But what about all the patients the drug companies are not focusing on or are not interested in, and the left-behind cancers? Brain cancer is certainly one, as are pancreatic cancer and mesothelioma.

What about those people? How do we address that? We address it through investigator-initiated studies, where universities, hospitals and the NHS say, "We'll do the trial, but you need to help us. We can't buy these drugs from you at £100,000 per patient per year; you need to give them to us and then we can fundraise and apply for funding to do the trials ourselves." We can then produce data, and when we show that there is some signal of activity, we can go back to them and say, "This is of interest for you. Why don't you do a full phase 2 or 3 trial?"

Q198 **James Morris:** Can I clarify that? When you say that pharmaceutical companies are not giving drugs to these trials, which are not being done by the pharmaceutical companies, you imply that those drugs exist in some form, but they have yet to emerge from the lab, as it were.

Dr Mulholland: No. They are not in the lab; they are way beyond that. They are drugs that are commercially available, but are not indicated for that particular tumour type. They call it repurposing but—

Q199 **Chair:** They are not being repurposed.

Dr Mulholland: They are not being repurposed. Repurposing is quite a difficult term for me because, on the one hand, you could have somebody taking something cheap, such as metformin, to treat their cancer, and on the other, very powerful immunotherapy that costs £100,000 a year, yet

they both come under repurposing. I want the £100,000-a-year drugs for my patients.

Q200 **James Morris:** Does it require law change in order to make that happen?

Dr Mulholland: Yes, and regulatory change with the regulator, the MHRA.

Q201 **James Morris:** It is not just about presenting an incentive; it requires some degree of compulsion.

Dr Mulholland: It does.

Q202 **James Morris:** I want to move on from clinical trials into broader barriers to research in your area, Professor Chang. Beyond the clinical trials discussion, which is quite central, what other barriers exist to achieving deeper understanding of the particular cancer in which you are expert?

Professor Chang: Funding is always a bit of an issue for pancreatic cancer. It is comparatively a lot lower than it is for other cancer types, but it has improved over the last five to eight years, with more funding and we know that will improve our understanding. As well as being highly mortal, pancreatic cancer will predictably become the second most common cause of cancer-related death in the next 10 years. However, the actual incidence is relatively low: it is about the ninth or tenth most common cancer type for both men and women. That means that, if we are to do clinical research—I know we are moving away from clinical trials, but clinical research in general involves clinical trial of patient samples—we will need a collaborative approach, whether it is a national initiative or part of the international initiative. We have done quite a bit through our Precision-Panc. We are recruiting from 32 centres around the UK on the various suites of clinical trials that we have on the platform.

However, we need to be able to acquire patient samples, patient data and patient tissue so that we can generate further translational research to better understand the molecular pathology, which is where the personalised treatment comes in. We have lots of drugs, but we have various types of molecular pathology that we know each drug will act on. That knowledge is not just in pancreatic cancer but applies to many different cancer types as well.

Q203 **James Morris:** Is there a sense that there is a systemic issue in relation to how research is allocated, with a slightly negative feedback loop? Pancreatic cancer is a difficult disease to understand and our knowledge is evolving, but not as speedily as some others, and therefore it doesn't get prioritisation from the market for research. Is that a summary of the issue that we have?

Professor Chang: Yes. That is part of it, but there is a nihilism, not just in the pharmaceutical companies but in the clinical community. It is a cancer type that has been overlooked over the decades. However, we

know the problem is not going to go away until we start looking into it. It has improved, but not as fast as we need and want it to.

Q204 **James Morris:** I have a slightly separate question for Professor Baldwin. Everybody is talking about AI and its application, and we have seen some examples in the lung cancer area of the ability of AI to diagnose and analyse and to speed up the process. What is your view about the potential of AI? You talked about earlier and faster diagnosis. Do you think the potential of AI is there?

Professor Baldwin: Yes, it has huge potential. In fact, in the lung cancer world we are already using AI quite a lot in imaging. It is already embedded but it has not had the level of research that you would often apply to a drug. NICE recently did two reviews of automated chest X-ray reporting and examination of CT scans to detect the little shadows called pulmonary nodules. They are a bit like skin moles in the sense that they can be malignant, or can become malignant, but most are benign, so you have to sort them out. NICE found that there was insufficient evidence for either of those technologies, even though the nodule management—

Q205 **James Morris:** Does that imply that we need a different regulatory environment?

Professor Baldwin: The regulatory environment is quite complex; there are a lot of guidance documents. At the moment I am involved in two studies, both looking at those two topics. Doing these studies is really difficult in the NHS because we have insufficient national guidance on the information governance process, the technical standards and the way in which we make sure our data is protected, and research ethics is quite slow.

The whole process is not really ready for this yet, and we need urgent attention to improve it. That is very important, because these technologies have massive potential to speed things up, make things a lot more accurate and change our standard of care but, first, we need to understand that they are accurate and do what the companies claim they do. Secondly, we need to make sure that their clinical impact is worth while because they are expensive. Many of these technologies are accurate and will have a very good clinical impact.

To go back to the research side of things, in lung cancer we have had an explosion of research from the pharmaceutical industry. There have been two things that might help the other tumour sites. First, it is quite a common cancer. About 20% of cancer deaths are due to lung cancer. That is why they target lung cancer. Also, there are lots of targets they have identified. The whole process of early detection and screening has opened up a new area of early systemic treatment, to improve the cure rates of cancer. Although when we stage cancer we think we have got it at an early stage, that is not always the case. There is occult cancer, and outcomes can be improved massively by systemic treatment as well as curative surgery or radiotherapy. It is the same sort of thing; if you can

start to talk about early detection of pancreatic cancer, that can open up a new field of potential drug design and better outcomes.

Q206 **Chair:** When we talk about future cancer we often talk about things that have not yet been invented, or very upstream work—the future—but from what you are saying, Dr Mulholland, it sounds like the future is actually here.

Dr Mulholland: It is here, yes.

Q207 **Chair:** And it is not being reached for. I don't want to put words in your mouth, but you could say that what is going on at the moment is actually quite cruel.

Dr Mulholland: Yes, it is.

Q208 **Chair:** Okay, could I give you some homework, if I may? Obviously, we are in the business of making recommendations to Ministers. From what Mr Morris has said, it sounds as if some regulatory/legislative change is needed. I don't want to detain us now on the detail of that, but if you could bear to write to us setting out what you think that could be, the Committee could consider including it in our recommendations. That would be helpful.

Dr Mulholland: It would be very helpful. Thank you.

Chair: Let's bring in the nurse—Paulette Hamilton.

Q209 **Mrs Hamilton:** Thank you, Chair. A number of the areas I would have covered have already gone, so let me start by talking a little about primary care and getting people into the system. Like other members of the Committee I have had a number of people die from pancreatic cancer. In my community, if you hear that someone has pancreatic cancer, you are preparing for the funeral, because you know it won't be far away. That is how bad it is. The big issue in areas like the one where I am an MP is people getting into the system. The report that MPs received made it very clear that 70% of people weren't even being treated; by the time they actually came through, they were not being treated.

My question to all of you is similar. In primary care, what could we do at that initial stage, to help people at least to get into the system to start getting the treatment—the radiotherapy, or whatever they need? In your opening statements you all talked about personnel in the workforce and experts in the field. You made it clear that the people are not there. What, for future cancers, do we need to put in place at that initial stage, to help us give people, if not longer lives, at least a better quality of life and the ability to plan ahead for what is going to happen, because they know at an earlier stage? Could I start with Professor Chang?

Professor Chang: Thanks very much for the question. There is a huge piece of work that we need to do for pancreatic cancer, and other less survivable cancers, on public awareness of what the symptoms might be. Sometimes the symptoms are quite occult, and not so obvious. Patients

need to have access to a GP appointment, to see their GP, and then the next bit is that the GP has to refer onwards in an appropriate time. Sometimes when symptoms are more conspicuous, so to speak, how do the various different symptoms trigger the referral pattern, and access to a CT scanner? That is another level of GP education. A diagnostic tool could be developed, and I know there are some in development already, where you could put in patients' various different data fields, to give you a probability as to whether we should be referring the patient for CT scanning or not. The next bit is obviously, as I already alluded to, the timing of access to the CT scanning, because that is when the clock actually starts. How do we choose the time from the point of presentation of any vague symptoms to a patient getting a CT scan and a diagnosis?

In terms of access to treatment and therapy, we need a national standardised pathway for what we call optimal treatment for a disease; in this case it is pancreatic cancer, but it would probably be the same for other cancer types as well. There should not be a postcode lottery and different access, or variations in survival for any type of cancer in the nation. Those are some of the key basic things we can work towards.

Q210 **Mrs Hamilton:** Dr Mulholland.

Dr Mulholland: There are a couple of things. Regarding screening for brain tumours, patients go to opticians and have the back of their eyes looked at. Opticians can see signs of brain tumours at the back of the eyes, so we need a way that makes it a bit quicker, so that opticians can refer patients straight to A&E for a scan without their having to go to their GP or go the slow route. If they have papilloedema or swelling at the back of the eye they need to go straight to A&E, and that should be built in.

I don't know whether there are still GPs who have specialist interests, such as GPs with a specialist interest in diabetes, but we could have GPs with a specialist interest in neurology. A patient might present with a headache and say "Oh, it's just a headache," but if they present a second time they should see a person with a specialist interest, who should be able to make a direct referral for an MRI scan. Those two things would get people into the system quicker and would not cost us a lot of money.

Q211 **Mrs Hamilton:** Professor Baldwin.

Professor Baldwin: Thanks for raising this. It is one area where I think we have made little progress on the point of development of symptoms to getting the first diagnostic test. We think it is the principal reason why our cancer survival lags behind Europe's. That is the explanation for it. We have done very well in having screening programmes, and prevention programmes are great. The faster pathways are really good as well, but in the middle bit we have a problem.

We called a conference in March, sponsored by the Roy Castle Lung Cancer Foundation, where we looked at that area in lung cancer. We felt

that there was no point in doing all the things we have done in the past. For the last 20 years we have tried to say that GPs need to be more responsive and more knowledgeable about the whole thing, with education sessions and so on. Nothing has really made a sustained difference, especially now that the GP workforce is so overstretched. We think we need novel ways to do it—different approaches. We know from the evidence that certain things seem to work.

A self-referral chest X-ray service for lung cancer is what we recommend, with more areas where people can go and get a chest X-ray. They are vetted beforehand and have to meet the criteria. There could be other self-referral services—for pancreatic cancer, for example. Cancer concern hotlines are being trialled in the UK at the moment, whereby you pick up a telephone and instead of having a long queue to the GP surgery you get through to someone from your area, who speaks your dialect and language and can go through an algorithm and decide whether you need a chest X-ray or should go straight to a CT scan.

There are a number of other things that we are not using very well at the moment either. In the GP record they have lots of data on individual patients. If we have the tools, we can look at that data and decide what the likelihood is that they might have a cancer of some sort. We are not using that as much as we should. We should use that data and give GPs—or not necessarily GPs, but some other person who may not even be in the GP practice—access to it to use as a tool to decide who gets the tests.

At the end of the day, as has just been said, you diagnose most cancers, apart from blood cancers, with a CT scan. That is the primary initial diagnosis test for most cancers. With lung cancer the chest X-ray can also do it, but the definitive test is often the CT scan. In the rapid diagnosis clinics that we have had, the CT scan has made most of the diagnoses, so that is what we need to aim for. We also have an increase in the number of CT scanners in the UK plan, which is really important. That is what we have done in lung cancer and I hope that it will be extended for other cancers.

Q212 **Mrs Hamilton:** My last question is about the money, because I am not going to move away from the finances. Across cancer services in general there is a lot of money, but for some of the cancers that have been talked about today the finances seem to be a bit lacking. I don’t mind who answers this.

Is there any way of making the distribution of funding a little bit more joined up and even? Some cancers, especially leukaemia, get an awful lot of money, whereas pancreatic cancer and blastoma cancers do not seem to have as much. I may be wrong, but I know quite a lot more money is needed for what people are trying to do with pancreatic cancer. That would help us to bring in the expertise and the people. Has anything been thought of to help to distribute it a little more? There is money there; it is not a broke service. I will start with you, Professor Baldwin.

Professor Baldwin: The NHS provides a service to all patients. It doesn't discriminate over which cancer you have. I think the funding is relatively even in terms of tumour type. There is a disparity in the funding available in different parts of the country, which I think is quite important. Deciding how to distribute the funds rather better is beyond my pay grade.

In the research area, as we have heard, there is a disparity in funding. Until recently, lung cancer funding was very poor; it was about a fortieth of the funding for breast cancer, for example. It was really quite shocking. We have improved that situation recently. As I said, the pharmaceutical industry, because of all the drugs that they now have for lung cancer, has put a lot of money into this. That is improving, and we could address the issue of where the funding goes for the relatively uncommon cancers. From my perspective, because we have a national health service, which is fantastic compared to other health services, the funding tends to be quite evenly distributed between the tumours; it is the geographical distribution that can be a problem.

Q213 **Mrs Hamilton:** Thank you, Professor Baldwin. Dr Mulholland, I saw you shaking your head.

Dr Mulholland: Glioblastoma patients have less money spent on research. That is very clear. The reason is that it is very difficult to do research in that area. If you can do a trial where you do a biopsy of a patient, give them a drug and do another biopsy, you can get funding for that. You can look at the profiling of that tumour, and that will pass the bar for funding; but you cannot biopsy these patients repeatedly, because they can bleed, and if they bleed they might die. There is a risk of maybe 1%, but actually it is not acceptable. That makes it very difficult to do good research in the area. That is one of the things holding it back.

The other thing is that the Government promised £40 million after the death of Baroness Jowell, and then said that people could not spend it. It is very difficult to know how to access it. We had a meeting with the Minister and with NIHR, and asked them how to spend it, and I still don't know how to spend it. Maybe you could ask them how to access and spend that money, because I don't know.

Q214 **Mrs Hamilton:** Thank you for that—very interesting. Professor Chang.

Professor Chang: I will touch on the model for the research funding side rather than the clinical allocations and where the money will go. I mentioned before that funding for pancreatic cancer has traditionally been low compared with other cancer types, but a lot of, especially, clinical trial activity is driven by the pharma companies—the private sector. That is where the money comes from. The money is going to the more survivable cancers in general, because they are bigger. There is a bigger financial market for that. It is about how we deal with the less

survivable cancers. Potentially there should be a minimum percentage bar for what should be spent on less survivable cancers every year—

Q215 **Mrs Hamilton:** Professor Chang, I hate stopping you, but how do we set that bar? It is a really good point, but if you were giving us a recommendation, how would we set that bar?

Professor Chang: To give you an exact number is very difficult, but potentially we need to set a bar—a definition of what a less survivable cancer is. If it has less than x% five-year survival, it should be classified as a less survivable cancer. We need as a community to think about how much of the total annual research revenue should be distributed to those cancer types, and about how to sustain the future of this cancer research, and to focus on training the next generation of clinicians and PhD students and academics coming through. Unless we make it attractive to research these diseases, most of the clinicians and scientific researchers will leave and go into another cancer type. If there is no funding, they will move to a cancer type with a lot more research funding. That is where we see the disparity. There will be continued improvement of good cancer survival rates, whereas for the low-survival cancers they will always stay low. We can see this in the stats over the last 40 or 50 years.

Mrs Hamilton: That is really interesting, but I am going to hand back to the Chair. Thank you.

Chair: A really good question. Thanks, Paulette. Finally, for this panel, Paul Blomfield.

Q216 **Paul Blomfield:** I would like to return to something that Professor Baldwin touched on in his opening remarks. You shared with us your success in transforming the position with the lowest quintile by targeted screening. It raises the wider issue, on which I hope everybody can contribute, which is the impact of inequality on less survivable cancers. Inequality is an issue across health and across cancer, and we have had evidence on that, but how does it manifest in relation to each of the cancers that you work on, and what do we need to do to address it?

Professor Baldwin: That is a great question, which is constantly talked about in my world. We do an awful lot of research on the more deprived groups because of all the things we have been talking about, such as participation in preventive things like smoking cessation and avoidance of other risks, where people live in more polluted areas, for example. There is the prevention aspect, and the screening aspect. Participation in screening is lower in the lower socioeconomic groups, and the reason why we have this amazing impact with the targeted lung health check is that we initially targeted it in the highest-incidence areas where a lot of deprived people live. That is why it had that impact. This will slowly change as we roll it out across the whole country. There is an issue with this group of people participating in healthy behaviours. We have to try to address that. It requires a lot of effort and the spending of extra money

on engagement and getting people to participate in these important health interventions. We do that a lot in the screening programme.

There are some amazing people in local communities, doing a good job of communicating in such a way that people receive the communication, and getting people to participate in the programmes. In some parts of the country we have a 75% participation rate in lung cancer screening, whereas in the US it is less than 20% in most areas. This is down to local people doing an amazing job. One thing we try to do when dealing with a more deprived population is to speak to them as they want to be spoken to. I am not the person to do that, even though I am from a working-class background. I cannot really communicate as well as the people who do communicate with these groups. That is very good, so that we get people the maximum health benefit.

In health outcomes, once people are on treatment, at least in lung cancer, they do pretty much the same. It is not that they do worse, if you get people into treatment. In fact, if you can get them at the same stage, and the same point in their journey, which is a bit of a challenge, they do just as well. In other words, it is well worth making all the effort, because you will get a good outcome. That is my summary on this point.

Q217 **Paul Blomfield:** Is it different with brain cancer? I am a brain tumour survivor—as other people were making declarations—but I can imagine that some of the factors that Professor Baldwin talked about do not apply in the same way. Is there an inequality issue that we ought to be aware of?

Dr Mulholland: Men are at slightly more risk of getting glioblastoma than women but, other than that, brain cancer does not discriminate. The only thing is that when somebody who is diagnosed is from a lower socioeconomic group, they cannot access other treatments. A lot of our patients go off to clinics in Germany and access additional treatments. That costs money and requires a big effort on behalf of their whole family. People who are isolated socially will struggle to find treatments, and even to have treatment, and so will people who are financially disadvantaged. Other than that, the disease itself does not discriminate.

Q218 **Paul Blomfield:** Professor Chang.

Professor Chang: Yes, there are probably a few socioeconomic factors that predispose to pancreatic cancer, including smoking and more recently obesity. However, there are genetic factors as well, because about 10% of pancreatic cancer is hereditary, so a patient could come from a family with familial pancreatic cancer syndrome or be known to carry certain mutations in some of the genes that we know predispose to pancreatic cancer. Those are the ones we screen for—individuals who are known genetic carriers or with familial cancer types.

The other specific subgroup we reach for screening, or for any other sort of testing periodically, are patients with atypical presentation of diabetes,

not the usual types of diabetes that we see in patients in their 50s or 60s, but people with atypical presentations of diabetes. They are losing weight or they have a background of smoking, and so on. Those are all triggers and we try to screen those patients early and send them on for a CT scan. Apart from that, it is quite difficult and tricky to screen asymptomatic patients for pancreatic cancer, because it is such a low-prevalence cancer, even though it is highly mortal.

Q219 **Paul Blomfield:** In our first oral evidence session, we received a suggestion from the CEO of Macmillan that we should look to New Zealand as an example for improving cancer outcomes, because they had adopted an approach described as inequality first, prioritising work on screening and diagnosis in communities where outcomes were obviously worse. Is that an approach that we should encourage?

Professor Baldwin: It is what we did in the targeted lung health check programme but, to be honest with you, the reason for that was direct advice from me. I said, "If you start this programme and don't detect lung cancer, people will say it's a waste of time, so go to the highest-incidence areas first." That is what we did, and I am glad we did, because it had an astonishing effect in levelling up the socioeconomic gradient. I think it is a good idea to go to areas with the highest incidence of disease, where the impact is highest. You have the maximum health benefit there. To some extent, in areas that are less deprived, people often look after themselves more. They seek health advice and intervention, so as long as you make it available and it is an option, you have to do less work. You need to be prepared to spend more money on those activities, and that is what has happened, but, as you can see from the targeted lung health check, it has made a massive difference, and they should be really proud of what they have achieved there.

Q220 **Paul Blomfield:** Dr Mulholland, Professor Chang, is there anything we should be putting in our recommendations to direct NHS England and ICBs to address inequalities in cancer diagnosis and treatment more effectively?

Professor Chang: I might actually flip it the other way around. When we say inequality, perhaps it is more about equal access to the very first diagnostic test, which is the CT scan. It is interesting that you touched on New Zealand. I used to practise in Australia and I came here about 10 years ago. In general, in Australia, most patients go to GP primary care, and they can refer on for a CT scan. It usually happens the same day or the next day and gets reported on the same day. The majority of the time that is where the primary diagnosis comes from, and the patient then gets sent to see a consultant surgeon, or to the hospital for treatment.

When I first came to practise in the UK I had not, in Australia, seen pancreatic cancer at an advanced stage. The report that came out a couple of years ago in *The Lancet* stating that Australia's five-year survival for pancreatic cancer is twice that of the UK is not surprising. If I

were to pinpoint one factor that is a major difference, it is not at all that we are worse here at treating the disease. It is a question of equal access to a CT scan. It does not matter whether you are in a very posh area or a slightly lower socioeconomic area if you can get access to a CT scan very quickly.

Q221 **Paul Blomfield:** Thank you. Dr Mulholland.

Dr Mulholland: I am not sure if it is relevant exactly to the question, but medical and clinical oncology are two different specialities. Medical oncologists are part of the Royal College of Physicians. I am a medical oncologist. We train and specialise in designing and running clinical trials. Trainees in medical oncology do not have to see a single patient with primary brain cancer in their training. It is not mandated at all. Also, in the multidisciplinary teams, each patient will have a clinical oncologist but not a medical oncologist. We are not a core member of the MDT as set out by the standards for the NHS, and I think that should change.

Chair: Thank you very much, colleagues, and thanks very much to our witnesses, Professor David Baldwin from Nottingham, Dr Paul Mulholland from UCL, and Professor David Chang from Glasgow. We really appreciate your evidence this morning. You have been very concise and have given us some clear recommendations, which I think my Clerk colleagues will greatly appreciate. I very much appreciate your time. We will take a five-minute break while we bring in a virtual witness for the next panel.

Examination of witnesses

Witnesses: Dr Julie Gralow and Professor Mark Lawler.

Q222 **Chair:** We are on our fifth evidence session as part of our future cancer inquiry this morning. We have already heard from some really interesting physicians from the University of Nottingham, from Glasgow and from UCL. For our second panel we aim to finish at about 11.30 to 11.40, depending on how we go. Dr Julie Gralow is executive vice-president and chief medical officer at the American Society of Clinical Oncology and is appearing online from the States. Here in the room with us is Professor Mark Lawler, who is a board member of the European Cancer Organisation, and associate pro-vice-chancellor and professor of digital health at Queen's University, Belfast. Thank you both for joining us.

I am going to start with you, Dr Gralow, and then hand over to Paul Blomfield. Could I ask you about the cancer moonshot, please, and the national cancer plan that flows out of that? Moonshot was launched by, I think I remember correctly, the Obama Administration, and it aims "to accelerate scientific discovery in cancer research, foster greater collaboration, and improve the sharing of cancer data." Obviously, you do not have a national health service—not that having one makes sharing data particularly straightforward. Maybe we will come on to that.

As I understand it, moonshot was reignited in 2022 by the Biden Administration, I presume, returning to one of his greatest hits—we

might call that a relaunch here in the UK. What is the cancer moonshot? What can we learn from it here in England?

Dr Gralow: As you indicated, the original moonshot was launched in 2016, during the Obama Administration, when Joe Biden was Vice-President. As you say, it was his baby. It was focused on accelerating discovery, increasing collaboration and expanding data sharing. It really was a moonshot—a big reach-the-moon.

When it was reignited in 2022, when Biden was President, the next phase brought it back closer to the earth. It was more realistic in making sure that we were able to reach many things that we already had across racial and ethnic groups, under-served communities and those with issues with social determinants of health, because it was realised with the first launch that innovation will have no impact unless we get treatments, diagnostic techniques and so on out to everybody.

The new moonshot research goals are that we want to include more people, from all backgrounds, in expanded clinical trials. We want to increase the pipeline of new drugs, but to speed the delivery of new cancer drugs and new vaccines that will prevent and treat cancer. We have efforts with the FDA to get drugs available and approved sooner as part of that. Enhancing diversity in the cancer workforce is one of the new moonshot goals.

Part one was shooting for the moon—trying to advance and accelerate discovery and innovation. Moonshot 2.0 is focused a lot on getting what we already have to the people who need it.

Q223 **Chair:** Can you talk to us about the national cancer plan? This Committee visited Singapore at the end of last year. There are examples of national cancer plans in Australia and the States. We do not have a national cancer mission or plan in this country at the moment. We have had one in the past, but we do not have an updated new cancer plan. By all reports, we are not going to have one. We are going to have a major conditions strategy, which will look at people living with comorbidities, including cancer. What are your reflections on the focus that comes from having a national cancer plan? What can we learn from that?

Dr Gralow: Interestingly, we never had a national cancer plan until April 2023. Although we have obviously paid a lot of attention to cancer and have a lot of funding for it, we did not have a formal national cancer plan until less than a year ago.

There are eight major goals of the national cancer plan. The first is focused on prevention. The second is about detection. The third is to develop effective treatments, and includes minimising side effects. It is about effective treatments that are tolerable. The fourth is to deliver optimal care—quality care. The fifth is to eliminate inequities, particularly in access to care. The sixth is to engage every person. A strong

statement from that goal is that we want every person to be able to contribute and participate in research.

The seventh goal is to maximise data utility. We have electronic medical records and research records that don't talk to each other, so there has been a big effort to standardise data elements, something called mCODE—minimal common oncology data elements. The last goal of our new cancer plan is to optimise the workforce. That includes diversity in the workforce, as well as having a strong workforce and addressing burnout and wellness, which is something that is impacting our oncology workforce.

Q224 **Chair:** Why don't you combine your national cancer plan in a major conditions plan, taking in other big killers such as stroke and heart disease?

Dr Gralow: We would lose some of the focus and attention. Cancer is a leading killer in the United States. With our ageing population and our success in cardiovascular disease, cancer is a leading cause of death. With our ageing population, we see that it will only increase. By losing focus on a national cancer plan and converting it to a major diseases plan, we would lose a lot of the momentum and a lot of the focus on a disease that is truly a major issue and will increasingly be a cause of morbidity, as well as death, in this country.

Q225 **Paul Blomfield:** Professor Lawler, this part of our session is driven by the fact that we know that the UK has some of the poorest survival rates. The Less Survivable Cancers Taskforce recently published a report underlining that point. We are trying to see what we can learn, hence the visit to Singapore and the engagement with the US. What can we learn from Europe?

Professor Lawler: One of the hats I wear is as chair of the International Cancer Benchmarking Partnership, which looks at outcomes across different jurisdictions around the world—in Europe, Canada, Australia, New Zealand and so on. One of the things that we have published in the last 18 months looks at the consistency of cancer policy and how that is associated with outcomes for seven different cancers. What we showed was that, for six of those seven cancers, having a consistent cancer policy led to better outcomes. It is indisputable that that data shows that having a cancer plan leads to better outcomes. We developed a policy score, if you like. Unfortunately—as chair of the partnership, I did not like to have to say this, but I had to say it because that is what the data told us—the UK nations were at the bottom of that league table.

What is really interesting and, I think, relevant to this Committee is that in Denmark, which had very poor outcomes for cancer 10 or 15 years ago, they prioritised cancer in their national health policy. They looked at cancer as something they needed to focus on. They looked at primary care—to go back to Paulette's question in the last session—and realised that they needed to change it in order to have better outcomes. Denmark

is at the top of that league table now. That shows you what comes from having a consistent cancer policy. I work in the UK, and I do not understand why we have gone to a situation where we are saying, "We won't have a cancer plan any more. We'll have a major diseases plan."

It is particularly relevant in the context of covid, because covid has disproportionately affected cancer services and cancer outcomes, much more in cancer than in other diseases. In the work that we did, initially in the UK and then with the European Cancer Organisation, we showed the impact that covid had on cancer diagnosis and cancer treatment. That impact was very significant. Seven out of 10 people who had suspicion of cancer did not get access to cancer specialist diagnostic services. Four out of 10 cancer patients who were being treated did not get their chemotherapy on time. That has an impact. For a disease like colorectal cancer, that impact will probably last a decade.

It seems like we are going against international best practice in relation to what the US has belatedly realised it needs to do in its cancer plan, in relation to what most of Europe is looking at, which is to have a cancer plan, in relation to what Europe as a whole is doing, in terms of having a European cancer strategy, and in relation to what countries such as Australia and New Zealand are doing. One of the things that I would emphasise to you is that we should not make decisions based on opinion. Opinion is the lowest form of evidence. We should make decisions based on evidence and use that evidence to inform us. I am quite happy to provide that data to the Committee to help you in your deliberations.

The other thing that is really important from a European perspective is that the UK is part of Europe. It is not part of the EU, but it is part of Europe. I represent an organisation, the European Cancer Organisation, that looks at Europe in the round, using the WHO definition—53 countries, including the UK. I am from the UK myself. I work in the UK. It is really important. Cancer knows no borders, so neither should we. It is about working together.

It has been a great boost, for example, that in relation to research funding we are now part of the Horizon programme, because without us the European cancer mission would not be delivered. We have done analysis in what is called the *Lancet Oncology* European groundshot commission. Going a bit to what Julie said, we realise that we need to do things on the ground—not necessarily shooting for the moon, but sorting out what needs to be done.

One of the things that we found when we did that analysis was that, if you take out what the UK has delivered in cancer research in Europe, Europe will not achieve the cancer mission. It is not just that the UK would like to be there; it has to be there. We would obviously like to be there, but Europe wants us to be there as well. If you look at the data and the evidence, it shows the difference that the UK has made and the influence that it has had in relation to cancer research in Europe. It is

critically important that we work together because, as I said, cancer knows no borders. We should not either.

Q226 **Paul Blomfield:** You make the point very powerfully. To be clear, you are endorsing Dr Gralow's comment in response to the Chair's question that it is a mistake to subsume the cancer strategy within a major diseases strategy, for the reason that Dr Gralow shared—you lose focus.

Professor Lawler: You lose focus. As I said, the evidence base shows that if you do not have a consistent cancer policy you have poorer outcomes. I can't be any more specific. The evidence shows that. International best practice shows that.

The other thing to remember is that cancer is a disease that occurs in every organ of the body, with different cancers in different organs, so it is unlike other diseases. It has also been affected disproportionately by covid, if you compare it with cardiovascular, respiratory and other diseases. This is the very time when you should be having a cancer plan to combat the impact that covid has had indirectly on cancer services and cancer patients. It is not the time to go for a major diseases strategy, including cancer.

Q227 **Paul Blomfield:** What can we learn specifically from the EU's Beating Cancer plan? The description of the transformation in Denmark is striking. Clearly, the EU does not have responsibility for delivery of health. That remains with national Governments. What has the Beating Cancer plan contributed to the focus or to a change in approach in national health systems from which we can learn?

Professor Lawler: It has very much helped in relation to screening. Screening is one area where it has helped to achieve consistency of policy. However, as David showed, the UK is far ahead of Europe in relation to screening. It is important to remember that it works both ways. We can learn from Europe on certain things, but Europe can also learn from us. That symbiosis is really important.

The other thing that is important is that we look at ways of making sure that research drives better care. We have shown unequivocally through the *Lancet Oncology* European groundshot commission that people who are treated in research-active hospitals have better outcomes than those who are not. It is not that research is an added extra—something that universities do in ivory towers. It is an integral part of how we deliver 21st-century cancer medicine. That is why, personally, I cannot understand why we got rid of the National Cancer Research Institute in the UK, which is the organisation at national level that co-ordinates research, when research is the very way in which we are going to deliver the innovation your Committee is talking about. If we do not have research, we do not have innovation and do not improve outcomes for cancer patients.

The other thing is disproportionality in relation to focus. That is one of the things that we showed in our study, which was the biggest study of cancer research activity in Europe—using public funding, not private funding. As David said, 21% of the disease burden is for lung cancer. How much research effort was spent on that 21% burden? Can anybody hazard a guess? It was 4%. It was 21% of the burden, but 4% of the research effort. There is similar data for colorectal cancer and pancreatic cancer. To go back to Paulette's question, there are differences, so we need to have a hard look at how we spend our money. Often it is not what we spend but the way we spend that is really important.

Paul Blomfield: I would like to explore that further, but I will hand back to the Chair.

Chair: We will. Let's bring in Dr Caroline Johnson.

Q228 **Dr Johnson:** You have talked about a cancer plan yielding results. How quickly will a cancer plan yield results?

Professor Lawler: That is a really good question. Sometimes it is in the longer term, in terms of outcomes. You are not going to change outcomes the next day, the next month or sometimes even the next year, but we have to realise that if we put the right trajectory in place, we can achieve significant change within a two, three or five-year period. As you know, we measure cancer outcomes in relation to both one-year changes and five-year survival or projected survival. However, there are certain things that we can put in place quickly. It is about looking at doing better what we do.

For example, in the last session there was a lot of talk about precision oncology or personalised medicine. If we do not have the pathology in place, we cannot deliver personalised medicine: no pathology, no personalised medicine. You need to make sure that the bed bricks are there, to allow you to build on that to bring in the innovation—the AI and so on.

Radiotherapy is a good example. Making relatively small changes in relation to radiotherapy could change radically the outcomes that we get for patients who receive radiotherapy. We know that 50% of cancers respond to radiotherapy. Precision oncology is not going to replace radiotherapy, chemotherapy and surgery; it is going to complement them. It is about looking at how we can do that in the best way possible, so that we get changes in outcomes that are beneficial in as rapid a way as possible.

Q229 **Dr Johnson:** The other point I want to ask about is data. In the NHS, we have a universal healthcare system, which the vast majority of people will use for treatment if they have cancer. That gives us an awful lot of data. To what extent is it being used for research? To what extent do you think that it gives us in the UK an opportunity that other countries do not share? Do you think that we are using that to the fullest potential that we

could?

Professor Lawler: It is a huge opportunity. It is exactly as you said. It is one of the best systems in the world in relation to collecting data, but we still have challenges in relation to how we access that data and use it more efficiently. We are better at doing it than we were, but we still have a way to go. We need to look at ways in which we make it easier to use that data, while respecting privacy.

We should learn from what we did during covid. During covid we relaxed a lot of the issues in relation to that, because we had to get access to data by as rapid a method as possible in order to look at ways in which we could develop vaccines and so on. We should learn from covid and use that rapid approach, looking to get more rapid access to data and data that is more real-time, because we have a huge opportunity that we can really deliver. It can be important not only for patients but for the economic benefit of the country to make that data accessible for innovation.

The answer to the first part of your question is yes, we have a real jewel in the Nile. I should have said jewel in the crown. My film metaphors are getting mixed up. Apologies.

Q230 **Chair:** A jewel in the Nile sounds rather enticing, to be honest.

Professor Lawler: We need to look at how we can make data available more quickly. We did a lot during covid. We should learn from that, rather than saying, "We did that. Now we're back to how we were." If we go back, I don't think that is a good way to go.

Q231 **Dr Johnson:** Dr Gralow, do you have any thoughts on the use of data? How does the US manage? You have many more different healthcare systems, all providing in separate groups. There isn't one big data source, like we have with the NHS. With that, do you have any research on how you get information on data changes in cancer prevalence?

Dr Gralow: With respect to data, you are right. We don't have a national health service. We have a bunch of different medical records, although we are working hard on having them talk to each other.

We have a strong interest in real-world data or evidence, which would come from collecting what is actually happening: who is being diagnosed, where are they being treated and with what, and what are the outcomes? We are using that to complement our clinical trials. In a clinical trial, you usually get younger, healthier patients, who, frankly, in the US are more commonly white and live in an urban area. Our medical records do not talk so well to each other, but the real-world evidence or data that we are able to get out of them shows us what happens once we get a treatment, once we get a drug out into the real world. We are strongly building our systems to talk better so that we can maximise the real-world evidence and, in some cases, revolutionise the way we do clinical trials with what we are calling synthetic control arms—looking at what is happening

already out in the community and then comparing it with a new treatment.

You asked about prevalence. I am not quite sure what you wanted to get at there. We have very good cancer data registries throughout the United States that collect incidence, mortality and stage at diagnosis. One thing that our cancer community, our patients with cancer, would like us to add to the classic cancer registries is data on how many people relapse; how many people have metastatic disease that occurs after the initial diagnosis; and how long they are living. That is currently not being captured, yet we know that in countries that have access to early diagnosis, good treatments and good follow-up care there is a whole growing community of patients with metastatic disease who are living longer and longer on treatment. With our current cancer registries, we have no way of understanding who they are and what those numbers are.

Q232 **Dr Johnson:** My final question is about prevention. We are doing a separate inquiry as a Committee about prevention, as prevention is always better than cure. Are there any particular research opportunities with regard to prevention, or do we largely just think, "Eat better, do good exercise, look after yourself and don't smoke," and that's it? Do we have more detailed research into that?

Professor Lawler: There are great opportunities. The European Cancer Organisation has a prevention subgroup that includes membership from the UK. There is the particular example of HPV-driven cancers—cervical cancer. We have brought out a manifesto in relation to eliminating cervical cancer by 2030. The UK has come out with a statement about eliminating it by 2040, which I think is very conservative. We would like to look at ways in which we can work with you on that, because we think that 2030 is achievable.

There are different areas we can focus on. Obviously, the public messaging is very important and so is understanding. You have to bring in social sciences to understand why, for example, people do not take up screening appointments. It goes back to what Paulette said in relation to the fact that we are not reaching out to certain parts of the population. There is a lot that we can do together in that space that would be really helpful. We would certainly be open to looking at ways in which we can work together.

Q233 **Dr Johnson:** Dr Gralow, do you have anything to add?

Dr Gralow: In addition to the lifestyle factors and the vaccines that Mark mentioned, bringing genetics and our own inherited risk of cancer into it will help us to reduce risk of developing a cancer, or to catch it at a very early time. Just as we are working on precision medicine and tailoring treatment to the patient and the cancer, we are personalising risk of developing cancer through risk assessment, including genetics. That will help us with how we advise on screening, vaccination and prophylactic surgery. For those who have a high risk of breast and ovarian cancer,

that is another way of reducing risk of disease, but you have to understand the genetics in order to make those recommendations.

Q234 **James Morris:** In the previous session, there was a lot of discussion about clinical trials, or the lack of them, in relation to some of the more complex cancers. Professor Lawler, do you have any views on how we might be able to change that situation in the UK?

Professor Lawler: Obviously, there are opportunities for pan-European clinical trials, and there are pan-European clinical trials in which the UK participates. Particularly for rarer cancers, that is an opportunity.

One of the things we need to look at is the regulation and making sure that we try to get the medicines or approaches to patients as quickly as possible. There are some delays, unfortunately. We have done studies on this across Europe, and there are huge differences. We are trying to do more work with the FDA in the US now to look at ways in which we can accelerate that process, because there should not be those differences. Inherently, you are talking about the same treatments—the same drugs—so everybody should be getting access to them within the same time period.

We certainly see opportunities, but sometimes we have to look at how we can take away the bureaucracy. Again, I go back to covid. Unfortunately, we have had to learn lessons from covid, but there are some positive lessons from covid that we can use to our advantage. One could be in relation to clinical trials.

Q235 **James Morris:** In the post-Brexit landscape, what are the barriers around the pan-European trials you refer to?

Professor Lawler: There are challenges, but not unsurmountable challenges. I think that there are opportunities. Yes, we need to look at ways in which we can work together. For example, the European Organisation for Research and Treatment for Cancer does pan-European clinical trials that include the UK, so it is possible to do. The NCI—the National Cancer Institute in the US—does trials in which the UK can participate.

It is about streamlining that process. If we can make it attractive for companies to work in the UK, we will make sure that we get access to the latest innovations for our patients. There is still a degree of work to be done, but we are heading in the right direction. That partnership approach is particularly relevant for rarer tumours.

Q236 **James Morris:** Dr Gralow, is there anything that we can learn from the US in relation to clinical trials for more complex cancers and what we should be doing?

Dr Gralow: In February last year, our US NCI—our National Cancer Institute—launched something called a clinical trials innovation unit to address that, not just for rare cancers but to speed up clinical trials in

general. Part of the effort is to work with the FDA, NCI and the whole cancer research community, including patient advocates, on innovative trial designs, operational efficiencies and decentralising trials—making them more patient-centric by allowing the routine labs, scans and physical exams to be done where the patient lives, instead of having them come into the big centre that has the trial open. This is where telemedicine and virtual consent can help.

We at ASCO have worked with the FDA and others on making eligibility criteria for trials much simpler. There are a lot of things that are crazy about the way we do clinical trials, in terms of how often you need to have certain tests done in certain labs and who is ineligible—a lot of the time, for no good reason. It is just on a list, so most people cannot participate. The clinical trials innovation unit is a collaboration looking at how we can design trials that can be done much faster and more smartly, and that reflect what will happen in the real world once we get the therapy out there, if it is effective.

Chair: Interesting. I missed out Paulette Hamilton. That was very naughty of me. I went to Caroline, who is next to her, and then to James, so I took her slot. Paulette, this is your moment.

Q237 **Mrs Hamilton:** It is my moment, okay. Mine is a really simple question. It relates to the fact that we have some brilliant work going on at this moment in time in the major conditions plan that we have in the UK. In America and in other places, they have a proper cancer strategy. Listening to what you are saying, my question is about the fact that internationally we are sharing quite a lot of really good practice, but I am concerned that with us moving away from actually having a cancer plan it will mean that for conditions like pancreatic cancer, some of the difficult conditions, we will not be detecting some of the fantastic work that is going on elsewhere in the world because the UK is moving away from some of what other people are doing in other parts of the world. Does that make sense?

Professor Lawler: What you asked makes sense. What does not make sense is the fact that you have a major conditions strategy rather than a cancer strategy. I completely agree with you because it limits the focus. It also means that by its nature there is the potential for rarer cancers to be less looked at. It is important that we follow the signs and the data. The data and international best practice tell us that a national cancer plan is the way in which you deliver the best possible care and research for cancer patients and for those at risk of cancer.

Q238 **Mrs Hamilton:** The Chair will agree with me that in this particular Health and Social Care Committee we are always about giving the Government really good proposals for how they could take things forward. Could I ask both of you—this is my last point—what you would say to the Government about the direction of travel they are going in? If you were to give them a good suggestion for how they could change, what would that be, Professor Lawler?

Professor Lawler: Implement a national cancer plan for England.

Q239 **Mrs Hamilton:** Dr Gralow, what would your suggestion be?

Dr Gralow: I would say that success will require collaboration, a willingness to change the status quo and a commitment from policymakers to invest in solutions that address the inequities and the barriers, and get what we already know works. We need research because we still have cancers where we do not do very well. We could make a major stride if we could get the treatments that we already have and know, and the diagnostic ability and the survivorship, to everyone equally. We have to address the inequities and the barriers.

Professor Lawler: I agree with Julie. Do what we are doing better. If we can do that, we can layer the other specialist things on top of that. If we do not have that base, we cannot do the innovation. It is important that we do what we do better, faster and cheaper.

Mrs Hamilton: Thank you both.

Chair: That's great, thank you. The final word goes to Paul Bristow.

Q240 **Paul Bristow:** Professor Lawler, we heard in the last session that cancer is not a single disease. We heard that there are significant differences in approach for how we might maximise outcomes for patients with pancreatic cancer, brain tumours and lung cancer. You said that the one single thing we can do is have a national cancer strategy. Accepting that cancers are different diseases and require different approaches, why do you feel that a major conditions strategy cannot achieve the same thing?

Professor Lawler: I am not saying that you don't ignore comorbidities. That is important as well. If you look at it in relation to countries that have focused on cancer as a priority that has actually worked—Denmark is a great example—it is because they went back into primary care. Yes, cancer is many diseases, probably 200 different diseases, but they have particular principles that are actually common. Yes, there are nuances in relation to diagnoses and treatment that we have to take into account. If we look at the scenario when we focused on cancer as a major single disease and at other countries such as Australia and Canada, you see the benefit that that brings in relation to delivering a coherent approach that will make a difference for cancer patients.

Q241 **Paul Bristow:** This is a point I wanted to make as well. I have worked in healthcare public policy for a number of years. I probably need all my fingers and all my toes to count the number of plans we have had to try to put innovation through the system and change approaches. A plan is only viable when it is implemented. What would we need to do if we had a national cancer plan or indeed even with the major conditions plan? How do we ensure that there is effective implementation at the end?

Professor Lawler: You need to measure what you do. You need to say, "Okay, here's what I'm doing to do, but then I'm going to measure it to

see if it has had an impact," and you need to stick with the targets that you set. At the moment, one of the reasons we are in the situation we have in relation to cancer is that we are not meeting the 62-day target.

Paul Bristow: No, we are not.

Professor Lawler: Look at the data that came out last week. We are still not meeting the 62-day target. Something needs to change radically. We need a cancer plan. It needs to be implemented as a matter of urgency, and it needs to be: "Let's do what we're doing better." We need to put in place how we can deliver and how we can make it better in relation to pathology, surgery, radiotherapy, chemotherapy, and so on.

The other thing we need to remember is that we now have a huge number of patients who are living with and beyond cancer—cancer survivors—and we also need a plan that takes into account their situation.

Q242 **Paul Bristow:** Dr Gralow, what are your comments on the point about implementation?

Dr Gralow: I absolutely agree that you need to measure what you are doing. In that measurement of whether your implementation is successful, you need some short-term endpoints looking at whether we are decreasing the stage of diagnosis, while working toward the long-term goal, which would be eliminating cancer as a major cause of morbidity and mortality. You mentioned how long it takes to get a patient in from the first symptom to a diagnosis to their first treatment. Bringing patients into determining what are the metrics for success to know if your implementation is working will be critical as well. That is whom we are trying to help—those who are dealing with cancer.

Paul Bristow: Thank you very much indeed.

Chair: That's brilliant. Thanks very much, Paul. That concludes this session. Professor Mark Lawler from Queen's University Belfast and the European Cancer Organisation, thank you very much for joining us in the room. Top marks and top prize of the day goes to Dr Julie Gralow, who joined us from a particularly long way away in the US, some significant hours behind GMT. We are very grateful to you for giving us the time in the early hours of the morning. That concludes today's session.