HOUSE OF COMMONS

Health and Social Care Committee

Oral evidence: Prevention in health and social care, HC 965

Tuesday 21 February 2023

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Watch the meeting going

Members present: Steve Brine (Chair); Lucy Allan; Paul Blomfield; Paul Bristow; Martyn Day; Chris Green; Mrs Paulette Hamilton; Dr Caroline Johnson; Rachael Maskell; and James Morris.

Questions 1 to 51

Witnesses

I: Professor Sir Chris Whitty, Chief Medical Officer for England; Jonathan Marron, Director General, Office for Health Improvement and Disparities, Department of Health and Social Care; and Dr Jeanelle de Gruchy, Deputy Chief Medical Officer for England.

Examination of witnesses

Witnesses: Professor Sir Chris Whitty, Jonathan Marron and Dr Jeanelle de Gruchy.

Q1 **Chair:** Good morning. This is the Health and Social Care Select Committee, in our first session back after the half-term recess.

Today is a key moment for this Committee. We start our detailed work taking evidence on prevention in health and social care. At the turn of the year, we put out our call for ideas across health and care, across Government and across society, on the whole idea of prevention. We had over 600 submissions. The team is analysing them now. Very shortly, we will publish them and our plans for our areas of focus as the inquiry progresses throughout this part of this year. What I can tell you is that they are very broad, from some more obvious stuff, such as obesity and smoking, to mental health, clean air, which we will definitely come on to today, healthy homes and healthy workplaces. There will be different workstreams within that.

Today we could not start with a more top level than our main guest. He is Professor Sir Chris Whitty, the chief medical officer, who is very well known anyway, but certainly because of his high-profile role during the covid pandemic. Thank you for all your work on that, Chris. We are also joined by Jonathan Marron, who heads the Office for Health Improvement and Disparities at the Department of Health and Social Care, and Dr Jeanelle de Gruchy, who is the deputy chief medical officer for England. Thanks very much for joining us and for giving evidence to us today to kick off this important inquiry.

Professor Whitty, can I start with you? The NHS is never out of the headlines, as you know. We hear about strikes—another potential strike, by junior doctors, was announced yesterday—and about money, but we hear as much about the system and the sheer demand on it, which, of course, hits staff very hard. Just before Christmas, we heard from the GMB union that 10 times the number of calls are coming into the ambulance service. The Secretary of State told us that that there were about 100 times the number of people in hospital with flu this winter. We know that the NHS in England spends more than £10 billion a year dealing with diabetes care. Obviously, there are many more examples.

To start this inquiry, can I ask whether in your view, as our chief medical officer, the NHS is sustainable in the future without a complete step change in how we prevent ill health?

Professor Whitty: Because this is the first session of what I know will be quite an involved thing, do you mind if I give a relatively long answer to that, just to frame it?

Chair: I was hoping you would.

Professor Whitty: My other answers will be a lot shorter, but I thought it might be quite helpful.

Chair: That is fine.

Professor Whitty: Essentially, there are three things you can do to make the NHS more efficient and effective and therefore, for all of us as citizens, and for those of us who work in it, make it able to work for the medium and long term.

The first of them, which this inquiry is looking at, is to prevent disease. A very large amount of the most severe disease is preventable completely, can be pushed out in time, so that people have it at a much later stage of their life, or can be caught early, at which point it is a lot easier, much more pleasant to treat—or at least less unpleasant, and, indeed, cheaper to treat than if it is dealt with later. That is all the work of prevention.

Clearly, there are then things that we can do as regards the NHS itself and how it is run. Those are for other points in your inquiries. Finally, and importantly, there is the issue of people who need social care following the NHS. Again, that is a very major part of the issue. All three of those are important, but this session is about the first of them: prevention.

Prevention has an absolutely massive role in some diseases, a significant role in some and almost no role in others. It is important to lay those out, which is what I would like to do with my first few comments. You can then take any of them in detail.

Let's start off with an example of a disease that is almost entirely, although not completely, preventable; it is about 79% preventable[1]. I will take two cancers that involve different sorts of prevention. The first is cervical cancer, largely in young women. This is something where we can now prevent almost all deaths, if we look 10 to 30 years into the future, mainly by vaccination, because it is something that is driven by infection, and also by screening, because screening allows us to pick it up at such an early stage that it can be treated incredibly quickly, as a day case, with really minimal trauma for the women involved relative to what happens if it goes on later. Cancer Research UK would say that, essentially, this is now 99% preventable, once we look out to the future; once the cohort of girls who are vaccinated turn into women and enter the period when they are at risk.

Another cancer that is highly preventable is lung cancer. Lung cancer is our No. 1 killer cancer. It is a horrible way to die, and most people who are diagnosed die within a year, very unpleasantly. Seventy-nine per cent. of all lung cancers are preventable. The great majority of them are caused by smoking. There are some additional issues relating to industrial processes, as well as air pollution, but the big one is smoking. If smoking disappeared, the great majority of this, the worst of our cancers, would disappear.

[1] Note from witness: This figure refers to lung cancer.

At the other extreme, there is nothing we currently know that can be done to prevent the most common cancer in men—prostate cancer. There is no effective screening mechanism. There are no preventive systems. It is all about early diagnosis and treatment.

I am just making the point that there is a variety, depending on which disease you are talking about. The majority of the largest diseases we worry about—the cardiovascular diseases, such as heart attacks and cardiovascular disease strokes, and most of the cancers, such as breast cancer and bowel cancer—we can prevent substantially or, at least, to a large enough degree to make a very big difference to people's lives and to the NHS. There is a lot we can do.

To take two examples, if I may, and then leave it to—

Q2 **Chair:** Can you bring in the point that I was making about the sustainability of the NHS, given where demand is?

Professor Whitty: Exactly. The example that I am going to use is coronary heart disease. When I was training in medicine, coronary heart disease dominated the medical take, to a very large degree. I am not that old, but back in the '60s 50% of people would have died of coronary heart disease in the UK. That rate has gone down; 25% of people die from heart or cardiovascular disease now. That is a vast improvement, but people are also not getting the unstable angina, the major events that put them into the NHS in the first place.

What has led to that improvement? Broadly, it is three sets of things. There is primary prevention. Those are things that are done to everybody; we all do them, as society. They have to be directed by political leaders who are elected. It is a societal choice. It is things like reducing smoking, reducing salt and improving areas for people to exercise—a variety of things that can be done to everybody. That improves the cardiovascular health of the whole population.

Then you have secondary prevention. Those are things that are done based on someone's individual risk. That is true for all diseases, but I am taking heart disease as the example. They are things like identifying that someone has hypertension and putting them on a hypertensive. If they have high cholesterol, they will be on a cholesterol-lowering drug. If an individual is smoking, we can help them individually to come off because we failed to prevent them from smoking in the first place.

Finally, there is treatment. That is the bit that, in a sense, is beyond this inquiry. Primary prevention was probably the principal reason for the big reductions that we saw in cardiovascular disease from the '60s through to around the '80s. Then secondary prevention became increasingly important. Over time, the rate of people dying of heart disease has dropped, for men, from 1,280-ish per 100,000 to about 300 now, which is a very substantial improvement. In women, it has dropped from about 889 to 210 over that time period.

That is made up of a combination of lots of steps on primary prevention, lots of steps on secondary prevention and improved treatment. When you put those together, you get significantly better health and much less pressure on the NHS. You have to think, "There are lots of things that we do in primary, lots of things that we can do on secondary and lots of things that we can do on treatment." Medicine is made up of lots of incremental steps, but a very large proportion of them, for most diseases, are on the preventive side.

The final thing to highlight is that within the UK the prevention we have is very badly distributed around the population. In our most deprived areas, the period of time in which people live in ill health and, indeed, how long they live is very significantly lower than in our most affluent areas. Clearly, that is not biologically necessary. To take a well-known example, in Blackpool people live eight years fewer, on average, although it varies hugely around the city. More importantly, in many ways, they live 19 fewer years in good health; therefore, they are also living their lives in a very constrained way.

That is due to preventable things. I will take two examples and then see where the Committee wants to go. One of them is smoking, which drives a large proportion of the cardiovascular disease—the strokes and heart attacks—and a large proportion of the cancers, not just lung cancer, but oesophageal cancer, bladder cancer and many other cancers. Smoking is usually twice as high in people with lower incomes and more than twice as high in people living with mental health issues.

The cigarette industry goes absolutely unerringly for the most vulnerable in society. You have a situation where a great majority of people who smoke will have taken up smoking before they are 18 and almost all of them will have taken up smoking before they are 20; that is, the cigarette industry goes for the most vulnerable teenagers. It aims to addict them at that stage of their lives. Then, when they find that they cannot come off, they are hooked. Most people who smoke do not want to smoke. This is framed by the cigarette industry as an issue of choice. Actually, they have deliberately taken choice away from the most vulnerable children and people in society by addicting them at an early stage of their life.

That is one of the reasons why there are differences relating to deprivation. A second one is issues of obesity. If you look at obesity in the highest and lowest socioeconomic groups, in children you find that in reception the percentage living with obesity is a bit over 13% in the most deprived areas and about 6% in the least deprived areas. By the time that we get up to year six—remember that these are still young children—it is 30% in the most deprived areas and between 13% and 14% in the least deprived areas.

Those are just two big drivers of ill health. It is very heavily skewed towards areas of deprivation. I will stop there, Chair, and take it in any direction you want.

Q3 **Chair:** Do you worry about the NHS and its viability, given the trajectory we are on? All the things you have said about obesity and smoking are not being turned around. They are continuing. Do you worry, as CMO, about the viability of the NHS if it continues to have this level of demand on it?

Professor Whitty: In a sense, my job is to try to see whether we can improve it. What is really clear is that we can, on this. On smoking, we can definitely improve things. We can improve things on air pollution. We might want to come back to that. We can improve things on exercise. There are lots of things that we can do on that.

Obesity is the one that is going in the wrong direction. It is a very major cause of multiple diseases, so it is a very significant one to aim for. There are certainly things that we can do to turn that tide—which has been going up—down over time. My view is that these preventable things can all be turned around, if there is the will to do so.

Q4 **Chair:** Some of that is what I guess we are trying to get at. In the *British Medical Journal* this month, you called for secondary prevention services to be restored and extended post covid. In your annual conference speech to the Local Government Association a year ago next month, you said that many areas of public health had "either trodden water or gone backwards" since the beginning of the pandemic. I think you were referring specifically to smoking, obesity and alcoholism as growing public health issues and called for a "long term" and local approach to prevention. The Secretary of State seems to agree with you that prevention is central to his mission. I wonder whether you think it is central to his and this Government's mission.

Professor Whitty: If you think about the primary prevention and the secondary prevention, it definitely should be. The Secretary of State has made it clear; he says that it is, and the Prime Minister has said that it is. The primary prevention issues are largely ones of political choice.

Chair: Yes.

Professor Whitty: Decisions around things like smoking are really made in this building and by local authority elected leaders. That is a political choice. Then there are issues of secondary prevention, which is what I was talking about in the *BMJ*. That is mainly around the distribution of resources in the NHS, in the broadest sense—not just doctors and nurses, but pharmacists, physios and others who work in the system.

My view, which I think is shared by most people and is the reason the NHS has very much swung behind this, is that putting more resource into secondary prevention in the NHS would be a good investment for the

future because it would help to slow down the speed of the hamster wheel, which otherwise goes ever faster.

We need to put a lot of emphasis on the area of medical care, nursing care and the widest healthcare, as well as, in a sense, making the case politically that there are choices to be made on primary prevention. Clearly, that is for Ministers to do. If Parliament chooses to enact some of the things that it could do, we could improve things like air pollution, reduce things like smoking and reduce the risks of obesity in the most vulnerable. Those are political choices.

Q5 **Chair:** But it is self-evident that those choices are not being made to the extent that you would like.

Professor Whitty: Correct. My job is to make the case that public health is important. Unsurprisingly, I think these are very important issues.

Q6 **Chair:** Yes. In five minutes or so I will bring in James Morris, who wants to talk to you about mental health.

Finally, your annual report last year made air pollution and its effect on health its central pillar. That was good to see. I know that you have been in Parliament this morning talking to the all-party group about exactly that. We have a major issue with air pollution in this country. It is a driver of cardiovascular disease, and you have made the link with cancer. Would you give us some of your thoughts on air pollution and how much of a low-hanging fruit that could be? Yes, we are interested in long-term preventive health measures, but we are also interested in what we could do in the short term.

Professor Whitty: One of the points that the report made—I hope, reasonably clearly—is that we have had an extraordinary improvement in air pollution over the last 30 to 40 years. The two things that drive that, broadly, are engineers and politicians. A combination of those two groups can lead on this.

Take transport, for example. Every decade the amount of nitrogen oxides and particulate matter from cars has gone lower. As we move to electrification, nitrogen oxides in transport will virtually disappear, at least from the light vehicle fleet. There will still be issues of particulate matter from brakes and, particularly, tyres, and they need to be dealt with, but there have been significant improvements. There have been major improvements in industrial emissions of air pollutants, but we have not had the same kinds of improvements in agriculture. That is not a trivial issue, but it is probably not one for this point in the inquiry, although it might be worth coming back to.

What we have not done so effectively, in my view, is tackle indoor air pollution. Since that is where people in industrialised countries spend 80% of their time, it is a major issue. Largely, the problem there is that we do not know what to do yet, as the science is not settled. For outdoor air pollution, we know what to do. A lot of it is about accelerating down

the curve and doing things that we know will work, including, for example, speeding up electrification of vehicles and a variety of other things that I go through in some detail.

Q7 **Chair:** For the layperson listening, what is a driver of indoor air pollution?

Professor Whitty: Essentially, indoor air pollution has three drivers. It has the stuff coming in from the outdoors. That is why tackling outdoor air pollution is essential. Unless you have that, you open the windows and things get worse. It has indoor air pollution created in the home. That can be as simple as things like the wrong sorts of air fresheners. We want people to know that.

Then there is ventilation, where we have a significant challenge, because we want both to have good ventilation, which is good for reducing air pollution and infection and for a variety of other things, and to retain heat, particularly in winter, to reduce our carbon footprint and people's bills. Those two are potentially in conflict. We therefore have to find engineering solutions—back to engineers—to get the two resolved, so that we can simultaneously have good ventilation to reduce air pollution and retain heat. That is a manageable engineering challenge, but it is one that we have not fully resolved at this point.

Q8 **Chair:** Jonathan Marron, the CMO can talk about the big picture, and does so in his annual report. One of the things that your organisation is doing is working with our integrated care systems. How much of a focus do you push through those local systems in judging their work on tackling poor air quality?

Jonathan Marron: We have been working with the ICSs through our regional directors and national teams. We need to put prevention at the heart of their agenda. It is really encouraging to see just how far the ICS leadership is taking prevention. We have probably focused much more on secondary prevention to date. What can the NHS do? Can we make sure we do the basics right? Have we found the people with hypertension? Are they effectively managed? Are we reducing the risk of stroke and heart disease?

In our broader conversation with local government, we are interested in what policies can help to reduce air pollution and how we can work on planning and traffic schemes—the broader range of things that may help locally—as well as, of course, supporting the CMO in the broader drive to have better solutions and less pollution created by transport over the longer term.

Chair: I will bring in colleagues now. We will go around the table to James Morris.

Q9 **James Morris:** Professor Whitty, it was interesting that in your initial exposition you did not mention mental health in relation to prevention; it was all about physical health. What am I to read into that?

Professor Whitty: If you think about prevention of disease, we have a very good idea about how to reduce many cancers and cardiovascular disease, for example. We have much less of an idea about how to do that in mental health, but there are things that we know work. Dr de Gruchy and I worked with the Royal College of Psychiatrists and others to try to identify areas where we already have evidence of things that we can do to improve on the rates of people getting mental ill health or, if they have it, how frequently they relapse and come back. Many severe mental illnesses, in particular, are relapsing-remitting conditions.

We should be clear that, although there are some things that we know work, the list is much less secure for mental health than it is for physical health. My very firm view is that there are probably many things we can do, but they have not yet been identified. This should be a major area of research, but that does not mean that we should not get on with doing the things that we know work at this stage.

Q10 **James Morris:** Historically, during the period 2010 to 2015, there was for the first time ever the formulation of a five-year forward view for mental health, including stuff to do with prevention. The Government launched a 10-year plan consultation last year but have now said that they are going to fold it all into the major conditions strategy. In terms of prevention of mental ill health, what do you think about that?

Professor Whitty: From my point of view, the vehicle in which Ministers choose to package things is very much for them, rather than for me. We should definitely not lose sight of the fact that mental health is increasing in importance in relative terms and, therefore, preventing mental ill health is getting more important as time goes by. There is not necessarily an absolute increase in mental health problems, although we definitely had that for some people during the lockdown period, which might be worth coming back to. Because physical health has improved so much in many areas, due to prevention in large part, the relative contribution of mental health issues is much greater than it would have been 20 to 30 years ago. Therefore, this being lost would be disastrous.

Within that, we know that the mental health service is one of the most stretched in the NHS. The treatment end of it is probably one of the most stretched areas of the NHS, before we get to the fact that the prevention is much less well evidenced. In a second, I will ask Jeanelle to go through some of the things that we did with the Royal College of Psychiatrists, if that would be helpful. My view is that the most important period we need to concentrate on is from mid-childhood through to people's mid-20s. For the majority of people who have mental health problems, they will first emerge during that period.

Q11 **James Morris:** Before we go on to that, I have a question to do with the interrelationship between mental and physical health. Obviously, there are often complex dependencies. Isn't one of the issues that prevention pathways in our health system are still predominantly about physical health and that mental health causality is often not addressed as part of

the pathway, if that is the right way of putting it?

Professor Whitty: I completely agree with that. Of course, they go in both directions. People with physical health problems are more likely to have mental health problems. That goes right back to the prenatal period. Equally, people living with mental health conditions very often have much higher rates of physical ill health. People with severe mental conditions very often die much earlier, not directly of mental health issues but because they have greater rates of cardiovascular disease, cancers or other things. The interrelationship between physical and mental health is complex and bidirectional, as you imply. Jeanelle, do you want to talk about the work we have done with the Royal College of Psychiatrists?

Dr de Gruchy: I echo what Chris said about the interrelationship between mental poor health, or mental disorders, and physical health, which is really important. Mental disorders contribute about 21% of the global burden of disease for England, which is quite a large proportion, so when we are looking at tackling healthy life expectancy, mental health is a large part of that.

As Chris said, the majority of mental disorders over a lifetime start in childhood and young adulthood, so the work around prevention, and developing an evidence base around prevention, is really important. We did work to look at the state of the evidence base and where we had stronger evidence. We looked at perinatal interventions, interventions with parents—strong parenting and home visiting programmes—school-based interventions, to do with things like bullying in schools, and workplace interventions.

By describing that, around schools and around workplaces, you can see that you have to look across different sectors. It is very much where we have to work across Government, both national and local, to look at ways in which we can prevent mental disorder. What we do in OHID is look at the evidence base and then share it. There are ways in which we share that across both different Departments of Government and local systems, the ICSs, and local government.

Q12 **James Morris:** I have a final question. You said that mental disorders contribute 21% of the disease burden. That is a recognised figure, but the amount of money that is spent on mental health prevention, research and whatever is minuscule, really. I think we spend £12 billion or £13 billion a year on mental health services in the NHS. That is for everything, not specifically for prevention. Do you think that that balance needs to change? I am looking at the entire panel.

Professor Whitty: Why don't we all give a view on that? I think we all have quite strong views on it. My view is that there is a lot more that we could do on the research side. It has been left behind for a long time. I did a report with Paul Farmer, who was then CEO of Mind, about four years ago that ran through the reasons why this had not happened and

which areas we could improve. There is a lot that we can do on the research side. Jonathan may want to talk about the NHS bit.

Jonathan Marron: The NHS has recognised the need to put more money into mental health. The long-term plan set out an investment standard so that mental health services would grow more quickly than the rest of the health service, and that indeed has happened.

Back in 2015-16, we spent about £11 billion on mental health. By the end of 2021-22, it was up to £15 billion. Of course, £500 million extra was made available during the pandemic to help to improve those services. There has been very clear investment in mental health care, both in the services for severe and acute mental ill health and to provide much broader access to psychological therapies, which are reaching a much wider range of people. There is some interesting work to try to put dedicated teams into schools. We have over 300 teams now. There has been a real attempt to try to grow that.

OHID has also tried to do some interesting things. Our behavioural programme unit, which runs campaigns and tools for the public, produced the Every Mind Matters campaign as part of our better health programme. That has a health and wellbeing plan that you can download and follow; 4.6 million people have done that. Two out of three of them say that it has led to improvements in their health and wellbeing. It may be at that very early stage, rather than treating severe illness, but we are trying to find ways of having a broader conversation about mental good health, as well as mental ill health. Are there practical things that we can do to help people to tackle these problems?

Professor Whitty: Can I add to that? Mental health colleagues very often talk about parity of esteem. They do that not because they think they are too high but because they think that there is under-investment and under-appreciation of the importance of what they do. I think most people would share that view. It is absolutely central.

Q13 **Rachael Maskell:** Professor Whitty, I have heard you say a few times today, "There are things we can do," or, "We will do things," but whether we look at smoking, alcohol and drug use, or gambling and so on, you have drawn out that there is targeted marketing by companies and that we have seen greater prevalence in areas of socioeconomic deprivation.

My question is about going slightly more upstream, rather than targeting particular resultant behaviours. What are the stress factors that are driving people into taking up lifestyle choices that will harm their health?

Professor Whitty: There are slightly different situations where deprivation is very clearly linked to worse health. I will take three examples. Let's start off with the case of people living with obesity, which undoubtedly is heavily segregated that way. This is often rather unhelpfully framed as, "Well, people are just making individual choices."

Actually, if you go to the areas where the levels of people living with obesity are much higher, the range of choices people have, in what they can eat, where they can exercise and a whole variety of other choices, is very heavily constrained. You still have a situation where, if you go up a high street, there is one chicken shop after another. That is not to single out chicken shops particularly, but to make the point that the range of choices available in much more affluent areas is simply not there, and the facilities are simply not there.

You then have the reality that the marketing from some companies—I will pick out the cigarette industry—is clearly directed heavily at people living in areas of deprivation because that is where they get their custom. You can see that from the numbers. They go for people in areas of deprivation, and they go for teenagers. That is their model. It is not therefore surprising, if there is very heavy marketing by some of the most sophisticated marketing companies in the world, that you end up in the situation you do.

The final thing is that many of these people have multiple hits throughout their lives. To go back to the example of Blackpool, in a map of Blackpool of age about four, the ill health is distributed relatively evenly across the city. By the age of 10, you already see heavy concentrations of ill health in particular parts of the city, which then maintain for the rest of someone's life. The people who die early live in those same areas of the city.

What I think this means for us in prevention terms is that we know where the problems are. You can see them on a map, flashing very firmly. The same areas that were affected by covid are affected by obesity. Depressingly, if you go back to the 1860s, very often the same areas had the highest child mortality. These are areas that have deeply entrenched health deprivation. Therefore, we know where we are. Those are the areas where we should go to intervene, because they are identifiable and we should be able to say, "This is where the big preventable problems are. Let's put the biggest amount of our effort into these areas because this is where the problems are going to be fixable most quickly."

Q14 **Rachael Maskell:** I completely concur with that. In my constituency, we have a 10-year life mortality differential, so I certainly recognise that.

I am particularly interested, building on the things you have highlighted, in the roles of local government in being able to bring about sizeable change. We are still waiting for the public health grant this year, which is one-year grant funding, so we are not really thinking ahead or bringing in the seismic change that is needed to address these inequalities. Of course, we only have 5% of the health budget spent on public health.

What changes need to be made to drive the focus on communities that are in places of deprivation because of the system and the circumstances around us? How do we lift the priority and the work of, for instance, directors of public health, to have more force in the local government

environment?

Professor Whitty: I will ask Dr de Gruchy to comment in a second because she was a director of public health until very recently, so she is in a very strong position to give her own experience of that.

We still do not have the public health grant quite over the line. I hope that is coming very soon. I think we would all accept that local authorities, in my experience—I see a lot of them around the country—do an absolutely extraordinary amount of work with the resources they have. With more resources, I think all of them would say they could do more. They are very inventive in the way that they try to create the healthiest environment for their citizens. They are usually very good at understanding exactly what the local problems are, down to individual street level, and trying to improve on those.

There is a lot more we could do locally. Most of us welcome the fact that public health went back into the local authorities. I think that has many advantages but, of course, they then need the resources and the political buy-in to be able to do stuff. Again, it goes back to the point that you need resource and political buy-in as well.

Jeanelle, do you want to talk from your experience?

Dr de Gruchy: Chris has laid out how the places where we live, where we go to school, the houses we live in and the nature of our communities in terms of the housing—whether we can walk, cycle and be active—access to healthier food or what kind of food offer there is, air quality and all of that is, as you know, really important for our health and wellbeing. It really impacts, in terms of the conditions that we are talking about, on whether you are more at risk of cardiovascular disease or cancer. It drives increased early mortality in particular areas, so there is a life expectancy gap between some areas and others.

It makes a big difference. We talked about the hot food takeaways in deprived areas. There could be five times the number of hot food takeaways in more deprived areas than in more affluent areas, so your access to a healthy food choice is more limited. We know that 20% of the most affluent wards have considerably more access to green spaces. Just for your mental health wellbeing and being able to be active, if you look at more deprived areas, your access to a garden is just not there.

All of that is really important. The reason I have gone into a bit of detail is that I think prevention and primary prevention go across Government. It is a lot of sectors. In a local area, that comes together in a local council and directors of public health, but work with other public and private sector bodies will be shaping that environment. That is important.

Q15 **Rachael Maskell:** I want to pick you up on this point. It is to do with the funding. If we are talking about year-by-year funding at such a minimum level, and if in six weeks' time the public health grant has not yet been

delivered, we cannot build a sustained agenda to bring about the changes and the strategy that are required. We have a fantastic director of public health in York, but not being able to plan, commission services or bring about change is a real frustration. I want you to take that back; we need to think long term about how we turn the ship around in the areas of greatest deprivation and need.

Professor Whitty: Jeanelle and I talk to directors of public health all the time, so I am very aware of their views, which I think are entirely reasonable.

Chair: Thank you, Rachael. We are going to try to stick to 10-minute slots per colleague, or 20 for the next because it is two colleagues together on similar topics. That way we will get everybody in. That is a public health warning for my colleagues. We start with an exemplary performance from Lucy Allan and Martyn Day.

Q16 **Lucy Allan:** Thank you, Professor Sir Chris Whitty, for being so passionate about health inequalities. Ever since I have been in Parliament, I have heard politicians talking about the impact on healthy lifespan and actual lifespan as well. What has frustrated me most is that in 2016 Theresa May stood on the steps of Downing Street and said that narrowing health inequalities was her top priority. In 2022 Sajid Javid, then Health Secretary, talked to the Royal College of Physicians and said that that was his priority. All politicians are committed to this. What are we doing wrong that these red spots are flashing on the maps that you were talking to in your opening address?

Professor Whitty: First of all, I would like to do part of my job, which is to depoliticise this, by making it clear that the red flashing areas on the maps have been through parties of multiple colours over a long period of time.

With curative services you can move stuff around quite quickly. I am a jobbing NHS doctor. I know how you can shift stuff around. I know that other people around the table have been NHS workers as part of their career. Public health has to be seen as quite a long-term strand.

One of the things that this Committee can help to do is create a bipartisan view, although there will be areas of disagreement, that there are some fundamental things that everybody agrees on, and that the baton needs to be passed from hand to hand, irrespective of who stands on the steps of Downing Street quite sincerely intending to try to improve the situation.

These problems can be dealt with if they are salami-sliced away. This is the point I made about the cardiovascular work. For example, with the improvements in air pollution and on smoking, there have been large numbers of small changes, one made after another. Each one contributes 3%, but 100 3%s add up to a very significant shift in risk.

What we should be doing is essentially assembling all the things we can do—hopefully, over this year you will do that—and saying, "Actually, there is pretty good agreement around all the tables on this. Let's get together and say that these are going to happen irrespective of who is actually in power." The danger otherwise is that you get prioritisation moving around. That is no one's fault. It is not a criticism at all. It is just to make the point that these should be seen as long-term bets rather than getting an immediate turn on a sixpence.

Q17 **Lucy Allan:** Is the gap widening? Are we getting worse health inequalities, but they are being masked because the health generally of the population is improving but the inequality element is getting worse?

Professor Whitty: There are certainly parts of the country where health inequalities are getting bigger. It is not across the whole country. In terms of inequalities, health is quite local. The variety can be considerable. All of you, as constituency MPs, will know that there are a variety of areas within your own boundaries, generally. It is quite local, but in some areas there are undoubtedly bigger disparities between the least healthy and the most healthy.

The ones that worry me most are not those where the most healthy are getting even healthier; it is where the least healthy are getting even unhealthier. That is where it is going against what all of us would want to see.

Q18 **Lucy Allan:** You mentioned something about prevention being long term, with 10 to 20 years to see something coming through. Could you talk a little bit about how we change that mindset? If we can get people to think about the short-term benefits, are they going to be more likely to implement those changes? We had Professor Chappell, the chief scientific adviser, giving us evidence on this a few weeks ago. She said that we have to shift the mindset of thinking that prevention is something to do with the long-term future and make it relevant to now. How do we make prevention relevant to now?

Professor Whitty: I am going to be deliberately slightly simplistic on this. Apologies, but I am just trying to make the point. There are some bits of public health, particularly when it comes to capital infrastructure, where you may get a relatively small improvement per year but once it is there it is there forever. That might be a legislative change, or it might be a cycle lane. It is something where, actually, you see it having a huge, long-term impact.

Then there are some things which are quite fast. For example, when the ban on smoking in indoor public areas came in, there was a very rapid reduction in heart attacks presenting at hospital. Within a year, we were seeing very significant reductions. That is in the primary prevention space. If you put someone who is at risk of a stroke and is hypertensive on an antihypertensive, the curves on a graph between those who are on treatment and those who are not start to separate within six weeks. You

can start to see improvements very rapidly. Of course, many of them compound, so that over time you can have very large changes.

People wrongly think, "Well, I'm going to do all this investment now, but we won't see an improvement for 20 years." There are some things where that is probably true, particularly improvements in health in young adults who are otherwise healthy, but for very many of the improvements, particularly in later life or in people who already have risk factors—for example, mental health, to go back to the first set of questions—the impacts can be quite rapid. I think we should see that. Most practitioners would agree that the impacts can be within months to a small number of years.

Q19 **Lucy Allan:** Jonathan, could I ask you about the Office for Health Improvement and what has been done to tackle health disparities?

Jonathan Marron: The Office for Health Improvement and Disparities was created in October 2021. It was a deliberate decision to try to bring the public health professionals who had been in Public Health England and the policymakers who had been in the Department of Health together into one team. It ran through quite a long process of consultation.

We all accepted that that was quite a big change for a lot of people. It was a trade-off between independence, which had been very important, and coming inside hoping to have more influence and impact. What we have tried to do is organise ourselves to be in the conversation about how to tackle inequalities, not as an outside external body but as part of Sajid Javid's team and Steve Barclay's team, working across Whitehall. We did lots of work with the Home Office.

In what we have done, we have aimed to put the evidence, the best advice and the opportunities in front of our ministerial teams. We have actually made some really good progress. The obesity work got lots of attention over the autumn period. Calorie labelling on menus came in during the summer. There were restrictions on product placement in supermarkets in October. That was a big change. I don't know about you, but with my shopping, if I nip into the supermarket to buy a loo roll or whatever, those Mr Kipling cakes on the end of the aisle were always very tempting, and they have gone. If I am buying the cakes, I know where they are so that's okay, but it is a big change. We are still working on the advertising.

Quite significant changes have happened. Part of that has been because we have had the people in the organisation who have been able to have the conversation with Ministers and others about how we do that.

Q20 **Lucy Allan:** Is that cross-departmental work actually going on?

Jonathan Marron: Yes.

Q21 **Lucy Allan:** It is not just about calorie counting on menus. It is about housing, planning and how we have our road system, so that we walk

and cycle.

Jonathan Marron: Absolutely. I chose the obesity example, partly because the coverage at the time suggested we were not doing anything at all. The newspapers always veer in one direction, don't they?

Much wider work has been done. There is Chris's work on air pollution. We worked across Whitehall on that. We have work on rough sleepers with the Department for local government. We are working really hard with the Ministry of Justice and the Home Office on drugs. Drug users are a marginalised community, and we do a lot on their health, and there is lots of investment going there.

There is a broad base to our work. There is the DCMS and gambling. We hope they are not far away from their White Paper. Bringing us in has definitely given better access for our public health specialists to the policymakers in government, which I think is a good thing. Jeanelle and I have tried to co-lead both the policy tradition and the public health professionals. Doing that together gives us something we have not had before in government.

Professor Whitty: Could I add one thing to that? It is slightly more sharp-edged. The problem for many of these issues is that the bad side of things going badly for public health ends up in Health, but the cost of solving it is in a different Department; let's say Transport. The cost of putting in cycle lanes and doing all those things is in Transport, both the political cost and the financial cost. The same would be true for DEFRA for some of the air quality issues. At the end of the day, only the Treasury and No. 10 can say, "This is a whole-of-Government problem, and we need to bring that together."

It is important for us to work with our colleagues, as I have done very recently with Transport and DEFRA on air pollution, but these problems are whole-of-Government problems. They should not be seen as just a Department of Health problem.

Lucy Allan: That is a very important point. Thank you for that.

Chair: That is why, Chris, we have you at the start of this inquiry. You are the Government's independent adviser. Yes, your secretariat comes through the Department of Health and Social Care, but you work cross-government. I remember as a Minister working with you and your predecessor in other Departments. This inquiry most certainly looks beyond our realm as a Select Committee because it would not be credible if it didn't. Thank you for saying that; it really helps us.

Q22 **Martyn Day:** This is very much on the same territory as Lucy. I take a great interest in food standards and health, and how that impacts on obesity. There is a lot there. I am very concerned, obviously, about childhood obesity in particular. You have spoken about how hardwired the deprivation seems to be in health. It is flabbergasting to think you can trace that back to the 1800s in some areas.

My colleagues up in Edinburgh, in the Scottish Government, are trying to halve childhood obesity by 2030. It seems to me that dealing only with the consequences of poor diet and higher weight is not enough. We need to tackle poverty. Poverty is such an underlying factor and, as you rightly said, that often requires a political decision. I will not ask you to make a political comment, but one of the areas I was interested in was Henry Dimbleby's national food strategy. Would you comment on the main components of that and how rapidly we would see an impact if we were to go down its different avenues?

It promoted the expansion of the free school meal programme for those on universal credit to tackle food poverty and unhealthy eating. It covered expanding sugar and salt taxes to fund fresh fruit and vegetables for low-income families, something I would personally favour. It also called for a 30% cut in meat consumption inside a decade, which would be a big cultural change to pull off. How rapidly would we see an impact from each of those three factors?

Professor Whitty: First, I acknowledge the great work done in Scotland, although I am speaking just on England. I am the CMO for England, but I talk every week—often more than that—to my opposite number, Professor Sir Gregor Smith, and his fantastic public health colleagues in Scotland. We learn a lot because Scotland has blazed a trail in many areas of public health. I hope the same is also true in the other direction. There is learning between the four nations of the UK.

I thought it was unfortunate that the Dimbleby report landed at a particular point when it was politically difficult to give it the concentration it deserved. Having a second look at it in this Committee would, in fact, be really valuable. I also commend the Khan review on smoking. Both of those were excellent reports and deserved a bit of time and political consideration as to what things are doable now, and what are not.

Certainly, I consider things on taxation are clearly and absolutely decisions for political leaders to take rather than public health people, although we can say what we think the impact would be. The soft drinks levy on sugar was an extraordinarily successful policy. It led to a 34% reduction in sugar while sales slightly increased in every single segment of society. There is something where everyone wins. There is no disadvantage to the marketplace, and the amount of sugar in the system goes down significantly. It was a well-designed intervention that essentially incentivised people to reformulate.

There are many things that could be done. The key is to incentivise people to reformulate—not to reduce choices—and then provide a level playing field. It is interesting talking to industry, which we obviously do. I have been quite struck by how many of the political leaders are expecting industry to say, "Please give us no more regulations," or, "No regulations." It is quite the reverse. Industry says, "We'd quite like to do this, but if you don't put a regulation in place, our competitors will try to undercut us." The regulation is simply there to allow the people who want

to do it to do so without a competitive disadvantage in the marketplace. There are a lot of things that can be done that work with the trend of the market, in a sense, to reduce calories—to take that example—from the menu across a whole range of different things. I am talking about a menu not in the restaurant sense but as in what everyone eats.

But—there is a big "but"—we have to be very careful that in doing so we do not make food more expensive for the least wealthy in society. Getting the balance between a more nutritious diet and one that does not become more expensive is absolutely critical. We have to get the balance right, because pushing people into food poverty would be the reverse of a good public health intervention. That is an example where a crude approach would probably do some good, but also some harm. Working with industry but also thinking seriously through the poverty implications is likely to be far more effective. As I say, regulation has a very major place, and that clearly has to be something for political leaders to make a call on.

Q23 **Martyn Day:** My other question is one that requires a political decision, so I don't expect you to give a political answer. It seems to me that advertising must affect public outcome and what they expect to get. We have not had the buy one, get one free deals on junk food banned or the 9 pm watershed on advertising. Advertising is something that Scotland does not control, so I need my colleagues here to grab this one and do something. How much of an impact do you think advertising has on people making poorer choices?

Professor Whitty: If advertising did not have an effect on people's behaviours, people would not pay the very large sums they do for it. That is a self-evidently true statement. There are things that affect advertising, particularly advertising aimed at children, and this is an area where my colleagues and I feel very strongly. We, as a society, accept that adults are taking choices for children, particularly younger children. Advertising at children is, in a sense, undermining that principle.

There is generally consensus about the fact that we need to do something about it. I am reminded of St Augustine: "Lord make me holy, but not yet." There is a slight tendency for this particular can to be kicked down the road for a variety of reasons. My view is firmly that we should be taking this thing seriously. There is support for it around the political system. It is to do with the timing. To me, it is accelerating the timing of a good public health intervention that runs very much with the grain of most people's philosophy, irrespective of where they sit on the political spectrum.

Chair: Excellent. A St Augustine quote in our Select Committee does not happen every day.

Q24 **Paul Blomfield:** I am interested in how we anticipate future risk. We have talked a lot this morning about obesity. We were not talking much about obesity when it wasn't a problem, or when it was only an emerging

problem, in the past.

As an example, Jonathan mentioned gambling. There was an NHS statement on the "Today" programme this morning about the problem with gambling addiction. We know that online gambling is bringing about a generation of young child gamblers, potentially creating a massive future problem. How do you go about anticipating future risk, although not necessarily on that specific issue?

Professor Whitty: I will do the future risk, and then it might be useful for Jonathan to comment on the gambling thing. He has taken a lot of interest in that.

Let's take the obvious example of the population ageing. In fact, I am doing my annual report this year on the ageing society. Everyone knows it is ageing, but what I think has been under-appreciated in policy terms is that it is ageing very unevenly across the country. This is true for all four nations in the UK incidentally, but I will just take the English data.

In England, people move into cities, usually at 18, for either study or work, and they typically move out after their second child. This means that the cities maintain their demographics. Birmingham, Manchester, Newcastle and London will look very similar in 30 years to what they do now, but the equation has to balance. Therefore, large parts of the country are growing older far faster than the average would imply. In England that would be north Norfolk, Devon, parts of Cumberland and those kinds of areas, outside the city areas. They are often difficult areas to provide services for, and it is also difficult to provide some of the preventive services.

That is a completely predictable problem that will hit us hard if we do not deal with it now. We need to be planning for that future issue. Interestingly, it is going to change the geography of disease. The two big drivers of preventable disease tend to be in areas of deprivation and in areas where there are concentrations of older people. It is going to shift from some of the typical areas of deprivation, such as inner-city areas and post-industrial areas, increasingly to semi-rural areas and coastal areas where there are higher concentrations of relative poverty but also of older citizens.

That is just an example of exactly the point you are making. You have to think 20 or 30 years ahead because a relatively modest change now could have a big impact over that timeframe. If we wait until the problem is on us, it will be far more difficult to do both politically and financially. The infrastructure will simply not be there.

Jonathan, do you want to talk about gambling?

Q25 **Paul Blomfield:** Before Jonathan comes in, perhaps I could press you a little bit on that. I am keen to hear specifically on gambling, but do you think we are sufficiently good at anticipating future risk on a wider scale? You gave a great example.

Professor Whitty: I think we are extremely good at anticipating and admiring it, but considerably less good at then doing something as a result. In a sense, it is very important in this Committee that you both identify the problems and push me and others a bit on the solutions. That is where the difficult choices come. It is what we are going to do about it, having anticipated it.

Jonathan Marron: Given the last answer, I am thinking hard about what I say next. With gambling, there are some generalised points. There is a real importance in surveillance and having the data on whether we are seeing harm. We have done lots of survey work on understanding the impacts.

The gambling environment has changed and people have become more worried about what we are seeing in the surveillance data. PHE, our predecessor, did some detailed work on understanding the evidence of harm in gambling. That has been really helpful in gaining attention. While many people might have the odd flutter or whatever, which is perfectly harmless, there is a significant proportion of the population who have much more harmful gambling behaviours and we need to do something about that.

We have worked both on the surveillance and the basic data—the evidence of the harm—and to understand the different drivers. We are expecting a White Paper shortly from DCMS. It is not my Department, so I am not totally sure of the timeline, but we are close. They are thinking about what changes we need in the regulatory environment to help to make gambling safer. It will look at everything from the design of games and how people get the marketing to work, through to whether there is more we can do on education and perhaps treatment to try to mitigate the effects of some of the harm. It is a very broad canvas.

To give an easy-to-understand example, people will remember the fixed-odds betting terminals—the games where people were winning large amounts of money. People were getting very worried about those. They were obviously driving a much higher level of harm. The Government changed the amount you could win, and that has made a massive difference. Some of these things are technical. Are the ways that the game is structured leading to harm? Some things were about marketing and, also, do we have the right treatment?

The story today is around the NHS. I have eight specialist regional treatments looking at gambling addiction. The promise is to get to 15, hopefully by the end of 2023. As we have become more aware of the issues, we have managed to get the treatment moved and a much stronger NHS response than we had five or six years ago.

Q26 **Paul Blomfield:** I have a linked question about the whole-Government approach and cross-departmental working. We touched on child mental health earlier. I was shocked when I was a new MP, going into schools and talking to kids about what they thought my priorities should be, that

at the top of their agenda was access to mental health services.

When I pushed them further on the issues they thought were driving their mental health problems, I was equally surprised by that because I probably had an old person's view, that it was about social media and so on. They said it was actually the pressure they were under from schools and their parents to achieve academically. How do you open up that discussion in developing a whole-Government approach?

Professor Whitty: I'll have a go, but it is not an easy question. The question about how far schools should push goes back centuries, to be honest, and exactly what the right balance is between going too hard and not hard enough. The school is the bit that is under the control of the state and, therefore, the state has to take a view.

To take the public health approach, we know that on the one hand the stresses of being pushed too hard have potential mental health consequences. We also know that there is a very strong correlation between a good education and a long education and having less dementia in later life, leaving aside success and so on. You have a balance, even narrowly, taking the public health implications of this.

It is not one for us, as public health people, to say where the point along the graph should be. It is very much one where the Department of Education and Government as a whole have to say, "At this point in history, have we got that balance right?" If what we are getting from students is a view that things are considerably more stressful than they were when maybe we were all at school, that is probably something for us to listen to and take seriously.

One of the things you learn very early in public health is that listening to what children say themselves is usually a lot more informative than trying to imagine back to how you were at that age and trying to legislate in good faith on that basis. Things have moved. The experience of childhood is quite different now from what it was 20 or 30 years ago.

Q27 **Paul Blomfield:** We are quite good at beginning to develop cross-departmental working on some of the issues of physical health, although there is clearly a lot more to be done, from everything you have said. Do you think that is at the same stage for mental health?

Professor Whitty: No, I do not think it is anywhere near the same stage. That is partly because, certainly on exercise, I do not think you would find anybody in Parliament, I would guess, who does not agree that more exercise for children is a good thing, and that providing them with facilities is a good thing. I may be wrong, and there would be a minority view for sure, but the evidence is good, and it runs with the thrust of what most people believe anyway.

For mental health the evidence is much less strong, and the interventions are probably more contested. Issues like whether we should go easier on public exams, for example, have snakes as well as ladders on the board

in a way that providing better playing facilities does not. It is a much harder area to deal with, but for the reasons that Mr Morris gave right at the beginning, this is something we will have to grapple with because it is an increasing part of the issues of health in general.

Ultimately, society is represented by Parliament. At the end, we can provide some bits of the jigsaw and the educationalists can provide some bits of the jigsaw, but the decisions have to be taken here and in local government. That is fundamentally where the final call has to be made.

Jonathan Marron: Can I add something?

Chair: Very briefly.

Jonathan Marron: This is not an answer to the whole question, but the mental health school-based teams are a joint initiative between the Department of Health and Social Care and the Department for Education. That started from a piece of work where the Departments together were looking at whether we were doing enough to provide support for children in our schools, and coming up with a jointly managed solution. We have rolled that out to about a quarter of schools at the moment. The programme is still ongoing. There is a start to trying to join it up, but I think you are asking a much bigger question than that answers.

Chair: That is fascinating.

Q28 **Paul Blomfield:** This is a brief question with hopefully a brief answer. We are very aware of the enormous scope of this inquiry. What do you think is the most effective thing we could do as our focus? That is not necessarily what is the most important issue, but what could we most effectively shine a light on?

Professor Whitty: I am going to give you two answers, which you can interpret as you wish. The first is from health improvement—the non-communicable aside. The bits of health improvement prevention that can really be decided on by Parliament are primary prevention. It seems to me that, although there is a lot of important stuff on secondary prevention, that is largely around resource allocation in the NHS. Issues of primary prevention are around society's choices.

Given that this is a parliamentary inquiry, my view is that the primary prevention question—the things that Parliament and local authorities decide—is a very major issue to consider.

The second point is on the health protection side, which we have not talked much about. That is preventing infectious problems, pandemics and emergencies like nuclear, chemical and so on. We have just had an example of the power of nature to cause absolutely catastrophic public health implications.

Past experience has been that, every time we are in the middle of one, everyone says, "Why did we not invest properly? Why did we not take

this seriously?" Between events people forget how bad it was and disinvest in all those areas because other most urgent things come up. Not forgetting the power of health protection to prevent the worst excesses of nature in public health for emergencies is possibly another area that you might want to go into. As I say, we have not discussed it so far this morning. I am just putting it on the table, since you asked me.

Q29 **Chair:** Do you mean planetary factors or covid?

Professor Whitty: Covid is an example. There are planetary factors as well. Certainly some environmental issues would be in that space, but I was thinking specifically about emergencies, of which infectious ones are the most common, but you also have to think about things like nuclear and chemical as part of it as well. The danger is that between events we always under-invest, not because we are intending to—everyone agrees it is important—but because urgent things happen. The hospitals and A&Es are full. You want to get more ambulances and more social care, and there is salami-slicing of the public health emergency budget into that.

I am not saying that is going to happen this time. All I am saying is that historically it is what has always happened between events. It might be something worth thinking through with colleagues when they are witnesses in front of you.

Chair: That is a very good point. Does previous performance indicate future direction?

Q30 **Dr Johnson:** Good morning, Professor Whitty. Whose responsibility is it to keep us healthy?

Professor Whitty: It is a tripartite answer, in my view. There is a bit around individuals making their own choices. Everyone would agree with that. A bit of it is around what Government can do. There are situations where people think that Governments should do that and situations where people think that Governments should not do that. The third bit is the healthcare professionals, in the broadest sense. The healthcare professionals bit is the secondary prevention side. I will come back to that if you want, but in a sense that is the most neatly defined.

My view is that most people's revealed preference—I would take this as what people have historically expected—is that when there is an emergency there has always been an assumption that Government should do something, going back millennia. Infectious emergencies are the most obvious, but floods and the tragedy of the earthquakes in Turkey are examples. How do you recover best from that in health? That has always been something.

There are areas where there is something in common—for example, air pollution. I cannot myself prevent much outdoor air pollution affecting my family. That has to be a societal thing. It is either done by Government representing society or it is done by nobody. As an individual you cannot

choose the air pollution level you have. It is a societal choice. It is also about protecting the most vulnerable, particularly children and pregnant women, and ill health caused solely by work. There is a long history that you should not die just because you have gone to work that day. The Government have a role in preventing the power imbalance between an employer and an employed person.

For the great majority of things, the average person in the country would be very clear. It is either, "I expect the Government to do this; I expect them to make sure my food is safe; I expect them to keep the air clean; I expect them to make sure that cars are not going to drive into me because they are not properly inspected," or, "I expect Government to stay well out of it." Yes, a child might fall off a rock because they have gone rock climbing, but that is nothing to do with the state. Banning sweets is nothing to do with the state, although we might want to encourage people to have fewer of them.

My view is that the great majority of the public are clear: either, "We want Government to intervene," or, "We want Government not to intervene." Then there is a small bit in the middle which is contested and could go either way. That is where political traditions tend to play, although there is not an obvious right/left one, to be clear. It is often much more to do with where people put their balance and the relative balance of individual freedom to make your own mistakes against the Government's responsibility to put a safety net under people for the most dangerous ones. It is on both the left and the right of politics. I want to be clear that I do not think this is a left/right thing.

Those are the most difficult ones politically, in many ways. You could answer the question either way. Often what you are doing is trading off very difficult things in either direction. My view is that that is the most difficult area, but nobody would disagree that everybody has an individual responsibility. Of course, no one would disagree that the health professions have. That is part of what they are paid for.

Q31 **Dr Johnson:** It is the balance between authoritarian and libertarian mindsets. You talked about the environment that some people are living in. You gave the example of Blackpool and talked about the chicken shops and the difficulties in accessing food, open spaces and such things, but within those areas there are still people living healthy lives. It may be more common to be unhealthy, but it is not universal. What evidence do we have about what incentivises or drives the people who remain healthy, even in more challenging areas, and how can we expand those behaviours to the wider population in those areas?

Professor Whitty: I will have a first go, and then I will ask Jeanelle to talk about it. She has had to live this as a director of public health and as president of the Association of Directors of Public Health.

The thing we should not do is assume that the problem that most people have is lack of knowledge. The average smoker knows that smoking is

bad for them. The average person who is living with obesity knows that that is bad for their health. It is not that they do not know something, so why have they got to that situation? To take those two examples, they have largely got to that situation because that is what has been presented to them as attractive choices, either by marketing or simply availability. That is a reality.

Why has the population collectively got a lot heavier over the last 30 years? It is not because humans are different humans from what they were 30 years ago, but because the way in which the market is structured and the way they can interact with it has changed over that period of time. Of course, within that there are individual choices. There are also biological things. Some people have a different point when they feel full rather than not, when they are eating. That is genetically determined as well as socially determined. It is a complex interaction. Then they have the choices that are put in front of them.

These things are always quite complex. What we have to work out is when the plate is so firmly tilted against them that it is the job of society to try to level it a bit, and when it is purely a matter of their own choice, in which case, fine. The more you look at it, the reality for most people living in areas of deprivation is that their choices are quite heavily constrained. It is not fair to say to them, "Well, it's your choice and you have chosen to do this," when in fact the menu of choices they were given was a pretty constrained menu of choices.

We have to be honest with ourselves that for some people the range of choices is far wider than for others. The more constrained people's choices are, the more it is reasonable that the state at least asks the question, "Should we do something to help redress that?" That does not answer it; it simply says that it is a legitimate question to ask. If somebody has an infinity of choices before them, to some extent that is up to them.

Q32 **Dr Johnson:** I want to ask about vaping. You talked about tobacco smoking. We know that we want to stop people smoking tobacco because it is bad for them and makes them die younger from all sorts of different diseases.

Vaping was invented so that you can stop smoking more effectively. We believe it is less bad for you than smoking. We also know that it is not as good for you as breathing fresh air. One of my concerns is that something that was supposed to be a stop-smoking device, like nicotine gum, has become a fad, heavily marketed at children, which is developing a whole generation of teenagers who are completely addicted to sucking little nicotine-coloured pop things. What are your thoughts on the effects on teenagers' health of vaping? How do we stop them getting addicted?

Professor Whitty: Let's start off with the bit of the puzzle that everybody agrees on, and then I will go to the bits where I think it is more contested.

I think everyone agrees that it is far safer for someone to vape than to smoke. If the choice has to be between one or two of those because they are smoking heavily and they want to come off smoking, but they cannot completely stop so they go on to vaping, that is a net benefit in health terms. Vaping has an important role as a public health tool to help smokers who are addicted, often through no choice of their own at that stage, to come off smoking. I think everyone agrees with that.

Everyone agrees that marketing vaping, an addictive product with, as you imply, unknown consequences for developing minds, to children is utterly unacceptable, yet it is happening. There is no doubt it is happening. Although it is from a low base, the rates of vaping have doubled in the last couple of years among children. That is an appalling situation.

There is a bit in the middle. Is it reasonable to have, in any case, flavours and colours that, essentially, encourage people to vape who may well not be vaping at all? We would much rather people did not vape at all. It is only for those who are already smoking, and vaping is the route out for them, where vaping has a clear public health goal.

We need to be much more serious, in my view. I know this is something you have very firmly championed, and I completely agree with you. We should try everything we can to reduce vaping, as well as smoking, in children—both of those are critical—which is really important, while trying what we can do to make sure that vaping is available for those for whom it is the route out of smoking. It is the best tool for some people, though by no means wholly effective.

It is getting that balance right. There is quite a lot of debate around the world about how to do it. Something you have picked up on, Dr Johnson, and I completely agree with you, is that disposable vapes, things like ElfBar, are clearly the kinds of products that look as if they are being marketed in reality at children. We should look very seriously at those products, for which the child market appears to be the principal market, and say, "Why are we considering this to be a good thing to have?"

Dr Johnson: I shall take that as tacit support for my 10-minute rule Bill of last week. Thank you, Professor.

Q33 **Mrs Hamilton:** Good morning, Sir Chris. My question is quite a simple one. While I worked in local government, I did an awful lot of work with public health, side by side, and in many instances had the pleasure of actually speaking to yourself and others online.

The problem I have is with OHID and Public Health England moving into the Department of Health. I hear what Mr Marron says about the fact that you have the policymakers, but I am concerned that you are not as proactive, so you are not reacting to things as quickly as you need to.

I will give a couple of examples, if it will help. We have an issue with teenage pregnancy. Teenage pregnancy clearly sits within OHID. The problem we then have is that it also links quite closely with sexually transmitted diseases in young people. That is with the Health Security Agency. The question I need to get across is, if we truly want prevention, how are those two things lining up? That is my first question.

My second question is, do you agree or disagree with me—I am leading—

Professor Whitty: Thanks for the hint.

Mrs Hamilton: With all the changes that have happened since the height of covid, I feel that you have lost your voice and that, in turn, what OHID is doing means they have lost their voice when we want them to be more proactive in what they are doing.

My last point, and you can answer as you see fit, is that I have this thing about nitrous oxide, the thing that young people sniff. There is absolutely a link that it leads to MS in older age. That is what people are saying. It strips the muscles or something. This is what the research is saying. The problem at the moment is that we cannot get OHID or anybody to come out and make a clear statement on it. We see a potential disaster happening with our young people, going forward, but at the moment we are absolutely struggling to get the powers that be—you guys who have the power—to make a clear statement that would help both locally and us, as politicians, to set a clear direction. Over to you, Sir Chris Whitty, and Jonathan.

Professor Whitty: Thank you very much. I will give a couple of answers to that, but OHID is very much led by Jeanelle and Jonathan, so I suggest they lead on this answer.

First, have we lost our voice? I think several people around the table would probably argue that people like me, not through any intention of our own, have had too big a voice in the last two years. In a sense, that was an atypical period because it was an emergency. What we are getting back to is a more typical environment. I personally think that is probably quite a good thing, overall.

OHID itself has a bigger voice within Government than it did, for which the trade is a bit less ability to say from outside Government, "You're not doing this right; you're not doing that right." That is the reality. That is the trade. Jonathan rightly said the positive side of it, which is his job. I am just making the point that, actually, there is a balance. I have to say that my view, independently, is that OHID has more influence within Government than it did when it was part of Public Health England, which was outside. There is no perfect solution, which is why this has moved around at various points. There is not an absolutely perfect answer.

On the interaction between teenage pregnancy and sexually transmitted infections, first, we should acknowledge that, largely led by education, there has been a significant reduction in teenage pregnancy over time.

That has so many benefits for the women involved, for their children and for long-term things. There has been a big improvement over some decades. Again, this has gone on over Governments of different colours, if I can put it that way.

On the link with STIs, the recent mpox outbreak we had in the UK demonstrated that STIs are a very serious issue. Sexual behaviour is a part of that. It is part of the more complicated areas. Something I have to remind some of my colleagues is that the last severe pandemic we had was HIV, which was sexually transmitted. A sexually transmitted route can be a route to a very serious infection. Some of the earliest bits in the NHS were set up largely to deal with the fact that the UK had a major syphilis problem 100 years ago and needed to deal with that; one in 10 men in London had syphilis, for example. It is quite extraordinary when we look back on it.

Bringing together the various components is critical. I have a line both to OHID on the non-communicable stuff and to the UKHSA. In my own background, I am an infectious disease physician by trade so I very much see the links between those. I think if you, or anyone, feels that there is a disconnect between the non-communicable and the communicable, you should flag it, because it is a really serious thing if that goes wrong. That was one of the potential benefits of the PHE system. I have to say—Jonathan can say whether he agrees; he used to work in it—I am not sure it always worked, even when they were in the same building. The philosophies were quite different.

I would not say that any disconnect is necessarily just due to the fact that they are in buildings about five minutes' walk away. That does not seem to me probably the principal reason for the cultural differences that sometimes arose. Say if you disagree, Jonathan. Jeanelle, do you want to give an answer?

Dr de Gruchy: I want to emphasise the importance of the director of public health role. We have talked about that before. I have been a DPH, and I know there is a strong director of public health in your area as well, Mrs Hamilton. The role of the director of public health is really important in knowing what is happening with local population health, both where it is the same as national and where it might be different, and what those concerns are. It is important to know about that and then think about what we can do.

Local directors of public health are very good at looking across systems and ensuring that they can provide system leadership in the local area between the council, council services, the services that they commission—such as sexual health services—and services commissioned and provided through the NHS, for example. I think ICPs are a real opportunity to look at how we can do this differently. We know that sexual health and reproductive health is one area where we need to do better at integration. That is really important.

In OHID, we have regional directors of public health. I directly line manage the regional directors of public health; there is one in the midlands. Again, with a line of sight as to what is going on in local areas and what issues might be arising or of particular concern, they will look for solutions at regional or local level, or in whatever geography makes sense.

Q34 **Mrs Hamilton:** Let me be a nuisance because I only have 10 minutes. I feel as if we are losing an independent voice. In your answer could you tell me how you feel that we will keep that independent voice, so that some of those emerging issues are not just tied up within local systems and then it is only with an emergency, as you talked about, or when something has gone wrong that we hear what is going on? The example I gave was nitrous oxide, which is a major issue at the moment in areas like the area I am from. For some reason we cannot get the people above even to make a statement on it. If it is happening in Birmingham, it has to be happening elsewhere. That is all I am saying.

Dr de Gruchy: I will hand over to Jonathan shortly. For me it is that relationship and making sure that we hear what is going on in Birmingham. That voice through to the regions is really important, as is the national; Chris mentioned that we still have regular calls with local directors of public health so that we can have local intelligence and alerts to us.

I do not know the specific issue you are highlighting on nitrous oxide.

Professor Whitty: We guarantee that we will provide a paper on that. At the end of that, if the data is clear enough, we will say something reasonably clear about it. I think it is a very fair challenge, but I do not think that is to do with where it sits. I think it is to do with us not having concentrated on that issue, so it is a good one to raise.

Q35 **Chair:** Jonathan, do you very briefly want to say something on the nitrous oxide point, or was there something else you wanted to say?

Jonathan Marron: There are a couple of things. While we have brought our public health colleagues into the Department, we are clear that there will be no change to what they are able to publish. We are going to speak to the evidence and continue to publish. We have produced over 200 statistical reports. The surveillance function that PHE had, which is really important, stays. The ability of our professionals to talk about what is happening on the ground stays, but we might be having a slightly different conversation about Government policy, where we are in the policy discussion rather than trying to influence from outside. That is where we have a change. I think that is making a difference.

Nitrous oxide is something that is live in Government. We are talking to the Home Office and the Department of Health people to share your concerns. As Chris offers, we are happy to help.

Q36 **Chair:** You say that it is a live issue in Government, but I go out with the

litter pickers in my constituency, and I constantly find the little capsules that Paulette is talking about.

Jonathan Marron: Yes. Neil O'Brien is very concerned about them. He has talked to his colleagues in the Home Office. It is an issue that people are turning their attention to.

Q37 **Mrs Hamilton:** Thank you all for your responses. On the nitrous oxide issue, I am a social media addict and they are saying that there is a link with MS and that young people are starting to present with early onset of MS. That is why I asked the question.

Professor Whitty: Could I make a very clear point on that? I think the point you raise on nitrous oxide is a good example. My view is that, if the evidence is clear, you can be inside Government or outside Government but the evidence speaks for itself. Where it tends to be more tricky is when the evidence is pretty unclear and there is a certain amount of advocacy involved. If the evidence is clear, you simply say, "Well, here is the evidence." There then has to be a response. Either we ignore it or we do something, but at least that makes it clearer. It is assembling the evidence that we need to do.

Chair: Great. Homework.

Q38 **Chris Green:** Professor Whitty, I am going to look at town planning for a short while. A good few years ago, a lot of towns were designed a bit like Milton Keynes. As Lucy Allan would highlight, parts of Telford were designed where there were roundabouts and urban sprawl. It does not lend itself to active travel or public transport. Once those towns are built, they are there for decades or hundreds of years in that format. It is very difficult to change them.

At the moment, we are going through a thing where there is a lot of focus on 15-minute cities. I am not very comfortable about certain surveillance aspects and other control aspects, but I am far more sympathetic to everything being within walking distance. What is your view of these grand designs, and sometimes the potential for them to go wrong because you do not quite envisage what is coming down the line in a few years?

Professor Whitty: I engage a lot, as Jeanelle does and DPHs definitely do, with the chief planner. You can build in either good health or ill health. As you say, once it is done it is very difficult to undo. This is true both at the macro level—planning a city or adjusting it as time goes by—and at the micro level. For example, one of the reasons we are going to have a problem in the UK as the population gets older is that the housing stock is not designed for that. It is designed largely for a young family with two children. That is going to be very problematic. People with even a moderate disability may not find it easy to live independently. The design of the built environment, and the natural environment that we maintain within it, is absolutely critical for physical and mental health.

Q39 **Chris Green:** That ties in with the point about Manchester, Birmingham and London maintaining the population age range and more small towns and areas.

Professor Whitty: Exactly. People are moving towards places where the housing stock simply is not correct as they grow older, which is going to be a very serious problem for us, I think.

Within that, of course all the decisions are tricky. They cost money, political capital, or both, but in the long run, building for health is a huge investment in the population as a whole. In general, provided it is made clear why it is good for health and the line of sight is "and my family's health will be better", my view is that people care about this. When it is framed in ways such that people feel their choice is being taken away from them, it gets a lot trickier.

To take the 15-minute cities' issue, which has become incredibly politically complicated for reasons that are multifactorial—let's leave it at that point—the first principle is that everyone should be able, if they wish, to walk to the shops and public services and use open spaces near where they are and not have to travel a long distance for them. Who is going to argue with that? It is in some of the ways it is then presented that tend to lead to the political concerns that some people have, some of which are easier to fully understand than others. Let's put it that way. I do not think there are huge amounts of opposition to the general principle that most people would want to live in a liveable city that is attractive for them, would allow their children to play and allow their elderly relatives to walk to the shops without always having to get public transport, but there is a cost to it. That is the trouble.

My worry is that sometimes the cost for one particular segment of society is allowed to get disproportionate weight. Let me take one example. The thing that worries me in London for active transport, as it does in most other cities, is not when there is a conflict between cars and cycles. That needs to be managed and both need to be dealt with when they are driving. It is the conflict between cycling, walking and driving, and large numbers of parked vehicles. It takes huge amounts of road spaces because they happen to provide funds for the local authority, or an individual has a parking space and they are not going to give it up without a riot. In reality, that car is used hardly at all, yet that is the thing which is causing the conflict between the active transport and the car.

It will require political bravery to overcome that, but once achieved the outcomes are very positive for everybody because health goes up, active transport goes up and people being able to drive as they wish goes up. With a lot of these things it is about saying, "Where is there an interest which ultimately is disproportionate?" That is fundamentally an issue of politics. People like me can say that in principle you have to do what you can to improve it, but it is a political choice and it has to be argued in the public domain.

Q40 **Chris Green:** That point lends itself to the next concern I have. Quite rightly, the Government want more people to walk and cycle to get around. National Government has given the Mayor in Greater Manchester—I am a Greater Manchester MP—money for the Bee network. There are projects being designed so that you have a better structure for cycling. I wonder sometimes whether the focus would be better on sorting out the potholes and the basic maintenance that is often neglected.

Constituents can see that there is a substantial amount of money for redesigning an existing and reasonably good road when potholes are not being filled in. I know that this is more of a Transport question, but if it is driven from the centre that, "You have to really push this active travel agenda," it ignores the basics that enable people to cycle, because a deterrent to cycling would be pothole-ridden roads.

Professor Whitty: I will give a general answer, and then Jeanelle might want to talk about Manchester as she knows it very well. Let's take cycling and other forms of active transport. What I really care about, as a public health person, is not that a middle-aged man who loves cycling goes 110 miles rather than 100 miles. I care that an older diabetic woman, living with a bit more weight than they want, has the opportunity to safely get from point A to point B by active transport, whichever form they choose, on the routes that they want to go on. To me, that is a huge public health win.

We often forget that quite short distances for people who have children and people who are older are, in public health terms, probably more important than having a long cycle route out in the countryside. That is great for people who are doing it, and I am all for it, to be clear. I am not saying those are bad things; they are really important. If what is stopping them is a pothole, that is important because safety is really critical to this.

My final point on this is: what is the disincentive to cycling, apart from people not being able to? Teaching at school is a critical thing. Feeling safe on the road is important, and knowing that you can leave your cycle at either end and it will not disappear is also important, quite reasonably. If you can fix those, a lot of people will use active transport. If you look back to the 1950s, a huge demographic of the UK—older, younger, every generation—all cycled or walked. It is a big shift away from that to cars, which in public health terms is bad in multiple ways, ranging from air pollution to lack of exercise. Thinking about how cities were until 40 years ago and how we can recreate that seems to me to be a legitimate question to ask. That is not mainly about potholes.

Q41 **Chris Green:** I have very little time, but in Greater Manchester we have the Greater Manchester spatial framework, which sets out housebuilding and other infrastructure to go along with it. It can be broadly described as a doughnut around the city of Manchester for executive homes. These sorts of housing estates and developments do not lend themselves to

public transport. They do not lend themselves to active travel. They might in the local area, but they certainly do not when you want to go to work. You have to get into your car.

For example, when there is a new primary school development, it is very rarely a new, single-form entry primary school with a relatively close catchment area. We had a proposal recently in the constituency for a three-form entry primary school. Coming from Government, the local authority trust and the Department for Education, if you have those sorts of developments, you require people to drive.

Professor Whitty: Jeanelle, you are a Manchester person.

Chair: Briefly, please.

Dr de Gruchy: I was a director of public health in Manchester and I still live in Manchester. These are very complex areas. I know about the spatial framework and all the political conundrums that were part of getting that through.

What we are trying to do with OHID is to look at what the evidence base is for health and health promotion of something like active transport or housing, and then work with the chief planner in DLUHC on looking at the national planning policy framework and maybe changes that could happen there. How can we help and support local areas to understand in the best way what the choices are and the balance and tensions that are there? It is the evidence base about what choices they can make.

On the point about future threats—Chris's point about who would have thought the car might have contributed in terms of air pollution or increased physical activity—it is trying to think ahead to what kinds of towns or places we want to live in, and whether our planning frameworks enable local communities to create the best places for people who live in those, for children through their life course and for older people, so that people can stay within their community should they wish to.

Chris Green: I appreciate the points you have made. I think what you are saying is right, but my concern is that the practices are quite removed from it. Thank you.

Q42 **Paul Bristow:** The NHS has historically been geared towards episodic care. The treatment tariff is an obvious example. In local government, public health is not often a political priority, certainly in the immediate term because we have local elections and things like that to deal with. Do you think that we have the right system in place and the right levers and drivers to ensure that appropriate investment is made in public health?

Professor Whitty: You can change systems infinitely. My view is that the current ICS/ICB model is probably reasonable because it brings together local authorities and the NHS in one place. They have not always seen eye to eye. I think that is a safe thing to say. I am sure all of you have seen this as constituency MPs. They both own very major parts of

the solutions, particularly on prevention, as do central Government. That is essentially the triumvirate of groups that can do something about it.

What we have to do is make it work. My worry here, if I am honest, is that the bits that were not working as well prior to this change could end up not working very well in ICS/ICB. The ones that were working incredibly well previously will end up with a very good system so, in a sense, we will not shift the dial in the areas where there is less good provision. What we have to do is look at the areas that have historically not done so well and bring them together.

Q43 **Paul Bristow:** Such as?

Professor Whitty: I am not going to name names, but if you look at the map of the country you can see where life expectancy is lowest. That does not necessarily mean that they have failed, but those are the ones where we need to put our effort. They have often been extremely good, actually, but they need the extra effort, and they are clear to see. You can look at the ONS data; you can get it down to ward level and see which areas really need the help. That is not a matter of changing the system. It is about saying that we have to be serious about X area.

Q44 **Paul Bristow:** I guess my question is around incentive. Yes, absolutely, you can look at a map or look at a city like mine, Peterborough, and certain wards in Peterborough. As Rachael was saying earlier, there are huge discrepancies in life expectancy across my city. There are some wards that do exceptionally well and others that do not. It was the same during covid.

Within the existing systems we have, are we going to have a situation where the incentive is towards longer-term investment in public health and prevention against, as you were saying earlier, ambulance times, waiting lists and the things that keep hospital CEOs awake at night?

Professor Whitty: The key is not the structure. That is my main point. I was in Peterborough very recently. I have seen exactly what you are talking about in terms of the extraordinary gradient and also, in the most difficult areas from a health point of view, extraordinary local leadership from local politicians, GPs and others who are determined to turn things around. It is almost always an issue about leaders—I do not mean that necessarily in terms of a political leader, although at the end it has to be judged by political leaders—saying, "Actually, for my area these are where the priorities are. I am going to live here for my whole life. When I retire or leave office, whatever it is, I want it to be better for my family and my neighbours than I found it." The local leadership you see is very heartening.

Unfortunately, what is less heartening is when you go to local areas that have serious problems, and the leadership is not there. It is random across the system, unfortunately. Getting good leaders into the areas where we have the biggest problems seems to me the biggest priority. They will take the risks. It is about holding the risk and saying, "Yes, it

will be unpopular for a year or two, but viewed over a decade this can be transformational. I'm going to hold my nerve and keep going because the evidence is very clear that, if we do this, it is going to improve health locally and indeed the local environment."

Q45 **Paul Bristow:** I think the centre you visited in Peterborough is a favourite of mine, and my local GP service as well. They do exceptional work. Do we spend enough money on public health?

Professor Whitty: My view is that we should spend more of the money we spend on health on prevention, which I think is the point of this whole inquiry. How much money we put into health is ultimately a political decision, which is why I tend to steer clear of it. As a health person, obviously I am going to be in favour of it. On the question of whether, within the fixed health budget, more of it should be going to primary prevention than secondary prevention, my view is yes, but on primary prevention a lot of capital to be used up is in fact political capital and not money capital. That is a decision for people around this table and not for me.

Q46 **Paul Bristow:** So you think it would be wise to divert money from secondary care at hospitals to prevention.

Professor Whitty: I would like people in secondary care to do prevention. The Chair mentioned an article I wrote in the *BMJ* earlier this year. Part of my point was, don't just leave this to GPs. This should be everybody's problem. It should be the nurses' problem and the consultants' problem. I speak as a secondary consultant myself. We should be thinking, when someone comes in, not just about the immediate problem but also about their blood pressure, their risk for cancer and all of those areas.

It is shifting the emphasis of the health service from a small number of people who do prevention—people with public health or primary care in their title—to, "This is a whole-of-system problem to which everybody should contribute." We should make it much more a sense of, "This is what the whole system is there to do."

Q47 **Paul Bristow:** You can fully appreciate the sensitivities in diverting money away from dealing with an immediate problem in hospitals, let's say, to public health or prevention.

Professor Whitty: But I did not say that. What I said was that within the health service, if you want to be in a situation where you say "Press and repeat" and all the problems we have every winter are the same problems, but they are getting worse because the population is getting older, the way to do that is to not take public health or prevention seriously.

If you took 100 doctors and 100 nurses and asked them the same question—"Should more of health money go into prevention?"—I am confident that the overwhelming majority would say yes. I happen to be

a public health person, but I am also a jobbing NHS consultant. I and my colleagues would all agree that, if it is well targeted and well evidenced—so not doing faddy things—that is the way you stop the hamster wheel going round at an increasingly fast rate.

Q48 **Paul Bristow:** Personally I agree with you, but I think it is a very difficult thing to achieve.

Professor Whitty: That is why we are so fortunate to have bold political leaders who can take these long-term decisions.

Q49 **Chair:** I see why you have lasted so long, CMO.

Can I end by asking you about upstream prevention, which is one of the things we want to look at in this work? Genomics Plc sent us a good submission about screening, suggesting that it should be much more targeted using genomic data to identify those most at risk.

We had a range of submissions calling for genomic testing on conditions such as hemochromatosis, aortic dissection—championed by my colleague from mid-Derbyshire who sadly lost her son to AD and has really led on this by forming a new charity—cancer and spinal muscular atrophy. You will be aware of the NHS-Galleri trial which is being done with the organisation GRAIL led by Harpal Kumar, who of course used to run CRUK. That is a fascinating study, in that it can detect very early stage cancers from a single blood draw.

Is the future of prevention upstream, with early detection of cancers? Pancreatic and bowel cancer are very hard to detect in the early stages. Is that the future of prevention when it comes to some of these conditions?

Professor Whitty: The short answer is yes. It is not in every area. Do I want to detect lung cancer earlier? Absolutely, because the outcomes get better but are not good. Do I want to prevent lung cancer by stopping people smoking? That is clearly far better on lung cancer.

Let's take the example you gave of pancreatic cancer. There are things you can do to help reduce the risk of it, but still a lot of people will get pancreatic cancer. The earlier you can pick up things like that, or oesophageal cancer, or to take one where it makes a huge difference, ovarian cancer, which is usually picked up far too late, and in the major cancers that people will come across in almost every family or among friends, such as breast cancer, prostate cancer and bowel cancer—the large ones that cross all of the population—and the smaller the procedure that you have to deal with, the less it impacts on people's lives and the long-term effects are less. There are so many advantages of going upstream.

There is a danger that if you go upstream with something that is not very specific—to take the GRAIL example—and is still in exploration, we don't know; some of it will work and some will not. Let's take prostate cancer. A very large number of people with prostate cancer will die never

knowing they have had it, or it certainly contributed in no way to their poor quality of life or their death at the end of it.

What you do not want is large numbers of people diagnosed with things for which early treatment is not going to help them at all. In fact, they will get the disbenefits of treatment but not the benefits. For example, screening for prostate cancer gives you large numbers of men who have the side effects of over-treatment and do not improve their quality of outcome at all at that point.

The way we deal with that is to get better testing and better targeting. That is what the genetic systems will allow us. They are going to say, "You, as an individual, are at much greater than average risk of diseases one, two and three, but at much lower risk of diseases four, five and six. Therefore, we are going to put the screening systems on to you much more frequently for the ones you are more likely to have. We will do less screening for the ones you are less likely to have because we have risk-stratified you in a much more sophisticated way." That will make it possible from here on, genomics being one element of that but not by any means the only one. There are many other ways you can stratify by risk, where we will stratify people's risk and intensively follow them for the diseases they are likely to get given their genetic or social environment, and much less for the things they are much less likely to get. We already do it a bit by age and gender, but this would be a much more specific way.

Q50 **Chair:** Would it follow that we would draw back from more population-level screening for breast or the FIT test—poo in the post—and increase the more personalised screening?

Coming back to where we started, to complete the loop, if we keep adding more things that the NHS is going to do, we either keep increasing the budget and spend more and more on health—health spending rises faster than GDP, which is not a very sustainable place given the workforce challenges we have—or are you saying that this would come on top of everything else that the NHS is currently doing through its screening programmes, for instance?

Professor Whitty: First, if you pick something up earlier it is almost certainly going to lead to less work for the NHS because it is much easier to treat earlier. That is not the main point you are making, but I am just adding that.

Let's take the FIT test. If we know that someone has a genetic condition called Lynch syndrome, for example, you would want to do it more frequently and earlier. There will be other people, at the other end of the spectrum, where you would think, "Actually, we don't need to do it very often at all." We may well be able to balance it, pushing it away from the people who need much less of it and much more towards people who need more of it. For example, with breast cancer, if someone has BRCA1 or BRCA2 mutations, you would want them to be screened earlier and

more frequently. There are other people with no family history and no genetic risk where you might well say that quite infrequent screening was necessary.

Of course, there are some things where, by prevention, we can wind back from it almost entirely. I anticipate a period when we will, in the future, be able to have minimal or no cervical screening because vaccination will simply have got rid of the risk. The thing I would like most is the thing that takes the risk away completely. Next down, I would like to target what we do more towards those at greater risk, and do less for those who are at lower risk because it does not make sense and the risk benefit does not help them particularly, and just uses up resources for no clinical benefit.

Q51 **Chair:** That is a brilliant place to end. It has been a brilliant session to start this prevention inquiry. Thank you so much for your time. I hope you follow our deliberations.

Professor Whitty: We will.

Chair: We will obviously stay in touch with you. Dr Jeanelle de Gruchy, Jonathan Marron and Professor Sir Chris Whitty, thank you very much for giving evidence. That concludes the session.