



Select Committee on the Long-Term Sustainability of the NHS

Corrected oral evidence: The Long-Term Sustainability of the NHS

Tuesday 20 December 2016

11.10 am

[Watch the meeting](#)

Members present: Lord Patel (Chairman); Baroness Blackstone; Lord Bradley; Bishop of Carlisle; Lord Kakkar; Lord Lipsey; Lord McColl of Dulwich; Baroness Redfern; Lord Ribeiro; Lord Scriven; Lord Warner; and Lord Willis of Knaresborough.

Evidence Session No. 35

Heard in Public

Questions 319 - 327

Witnesses

I: Professor Sir Michael Marmot, Professor of Epidemiology and Public Health, UCL; Professor Sir Mark Walport, Government Chief Scientific Adviser (GCSA) and Head of the Government Office for Science, HMG; and Professor Dame Sally Davies, Chief Medical Officer, Department of Health.

USE OF THE TRANSCRIPT

1. This is an uncorrected transcript of evidence taken in public and webcast on www.parliamentlive.tv.
2. Any public use of, or reference to, the contents should make clear that neither Members nor witnesses have had the opportunity to correct the record. If in doubt as to the propriety of using the transcript, please contact the Clerk of the Committee.
3. Members and witnesses are asked to send corrections to the Clerk of the Committee within 7 days of receipt.

Examination of witnesses

Professor Sir Michael Marmot, Professor Sir Mark Walport and Professor Dame Sally Davies

Q319 The Chairman: Good morning. Thank you for coming today to help us with this evidence session; we appreciate it very much. Before we start, I would be grateful if you could start from my left and say who you are so that we get it on the record. If you want to make a brief opening statement, please feel free to do so.

Professor Sir Michael Marmot: I am Michael Marmot. I am director of the UCL Institute of Health Equity.

If I should take my two minutes now, I will. When you think about sustainability of the NHS, one has to put it in context. It all sounds very complicated. I think it is almost Newtonian in its simplicity; it is like billiard balls. You have demand, funding and care, and you have to think of all three. We have increasing demand because of a growing population and an elderly population. In funding, in real terms, NHS inflation has been flat. Then you have to look at quality of care. My approach is to look at demand and the big issue for me in the inequalities is that we show a social gradient in life expectancy but a much steeper social gradient in disability-free life expectancy. People in the most affluent areas live about 12 years of their lives, on average, with disability and then it increases progressively the more deprived the area. In the most deprived areas, people live 20 years of their lives with disability. If we want to make our health system sustainable, we have to address the social gradient in disability, not just for the poor but right across the gradient because it increases, and I will have a lot to say about how we can do that.

The Chairman: Good.

Professor Sir Mark Walport: Good morning. I am Mark Walport, Chief Scientific Adviser to the Government, and I have a number of interests with respect to your inquiry.

My job, as you know, is to ensure that the Government have access to the very best evidence to help them with long-term decision-making and strategic thinking. I am supported by a network of chief scientific advisers, and you have already had the opportunity to hear from Chris Whitty. I have a broad role in ensuring that the Government make the best use of futures thinking, so the futures work that the Government Office for Science does is part of the Government's horizon-scanning programme and it is a partnership with the Cabinet Office. That was set up in response to the review that John Day undertook and reports to the Cabinet Secretary's advisory group, which comprises Permanent Secretaries from relevant departments.

The future health of the population is of interest to me from three perspectives. First, you cannot meet the challenge of thinking about the

future of the NHS without looking at the very best evidence and collecting it. In the context of the Foresight work and the horizon-scanning work, we have completed a piece of work on the ageing population, and I will have an opportunity to say a little more about that, particularly when we talk about some of the demographic challenges that Michael Marmot has been talking about. The third point is that most of the levers that we have to promote the health of the nation, which will, in turn, secure the long-term sustainability of the NHS, sit outside the health sector itself. They are in education, housing and transport, so many different parts of the Government and the wider economy need to play a role. Those are the three reasons that I am interested in providing evidence to you.

Professor Dame Sally Davies: I am the Chief Medical Officer for England. Thank you for the invitation. I shall be brief because I think the conversation will be the most important bit to you, and I am sure some of it will focus on prevention, in which I have a particular interest.

The Chairman: Let me get on to the first question. You have mentioned the change in demography, the impact that it will have looking forward to 2025 and 2030 and the challenge that it will produce for health and social care. Is the health system geared up to meet that challenge, and what do you think the key drivers of that change will be?

Professor Sir Mark Walport: If I start with the demography, it is quite a complicated, multi-faceted picture. Some 75% of the UK population growth between 2012 and 2040 is projected to be in the 60-plus age group, so by 2040 one in seven people will be aged over 75 compared with about one in 12 today. Of course, the challenge is that, while we are all living longer, we are not compressing morbidity, so there are more years of ill health, particularly for women, and years of ill health have not decreased for men.

The next point is that the geography of ageing varies across the UK, so it is not uniform. Coastal and rural areas are ageing much faster than major cities, and people migrate away from cities as they age. We have changing family structures, so it is projected that something like 400,000 more older people will need family care by 2031 and, over the past 10 years, the proportion of over-65s who have divorced has doubled, so these all add to the complexity of the demographic challenge. If you are a working carer you are two to three times more likely to experience poor health than those without caring responsibilities and, to put the old age dependency ratio in context, the ratio of people over the state pension age to 1,000 people of working age will increase from 311 now to about 372 in 2040. Looking at housing, it is not fit for purpose for that change. For example, the number of disabled older people increased from 4.7 million in 2002 to 5.1 million in 2011-12, and all the evidence suggests that that trend is set to increase. It is almost a demographic perfect storm. It is an increase in ageing people, but there are all sorts of other complications that go with it. Those are the demographic facts.

The Chairman: So is the system geared up to meeting this challenge looking ahead to 2030?

Professor Dame Sally Davies: Let me add a couple more facts before I go to that. Of 50 to 64 year-olds, as I published a couple of weeks ago in my “baby boomers” report, 42% have one long-term condition and 24% have two or more, and by 2020 a third of workers will be 50 years old or over. You can see the pressure that it is putting on the healthcare system, which was set up as an illness system in the 1950s, not to be a health system doing prevention and aiming to keep people out of hospital. That was not the objective. We have yet to fully adapt to the needs of this changing population and, as the OBR has highlighted for you, as incomes increase, people demand more of healthcare, so we are asking more of our health system than our parents did, and our children will ask more than we did, if that straight line persists.

The Chairman: Sir Michael, a comment?

Professor Sir Michael Marmot: One is looking at the demographics, but I said I wanted to come back to the causes of the inequalities in ageing and healthy ageing, and I think there are challenges. In my 2010 review of health inequalities, I identified six domains of recommendations to reduce health inequalities: early child development; education; employment and working conditions; that everyone should have the minimum income necessary for a healthy life; sustainable places to live and work; and the sixth was taking a social determinants approach to prevention. There are challenges in all six of those that do not look good for the future.

If we look at early child development, the decline in child poverty stopped, became flat and is now increasing, and the projections are that child poverty will increase over the next four years. Another way of looking at good early child development is not just at children in poverty, but at the quality of services for early child development. There is good evidence that good services can reduce the inequalities in early child development, but we have been closing Sure Start children’s centres all around the country— a very bad idea.

In education, the recent PISA scores—Programme of International Student Assessment—show what they had in recent years. If we take Finland at one end and the US at the other among the rich countries, we always do worse than Finland and always better than the US, but our gradient is steeper than in Finland. It is not quite as steep as in the US, which is a very bad place to be. As we know, health has been stagnating in the US and, in fact, life expectancy dropped last year. On education, we are failing our young people because of this steep gradient.

On employment and working conditions, the quality of work matters. There has been a rise in the proportion of work-related illness related to stress, depression and anxiety, which is complicated.

Then, when we look at number four, income, as you know, for people under 60 per capita income has not reached its 2007 level—we are still below it. The projections of what the tax and benefits system will do over the next five years is that, for the bottom decile of income, there will be

something like an 8% decline in income, for the next decile about 10%, and, for each decile, the richer you are to begin with, the less deleterious an effect any changes to the tax and benefits system will have. There will be increased poverty and increased inequality over the next five years, which will potentially damage health, particularly for families with children; they will be selectively hurt the worst. If you look at the gap between the minimum income standard for healthy living and the national living wage, projected over the next five years, it will be particularly large for families with children and single parents with children; they will be in real poverty, which will, of course, have an adverse effect on early child development.

Lord Kakkar: To come back to the point made by Sir Mark and Dame Sally, how is this information that you have provided incorporated into long-term sustainability planning for the NHS?

Professor Dame Sally Davies: The way the planning goes— I think it has been explained to you, my Lords—is that we get inputs at every comprehensive spending review from all the arm's-length bodies and their analysts on a lot of data, plus we have a team of analysts who work up where we think things are going. That is the basis of the discussion with Her Majesty's Treasury for the financial settlement.

Lord Kakkar: That is for a spending cycle, not for long-term sustainability to 2030 and beyond.

Professor Dame Sally Davies: That has worked very well. I know that you are interested in looking further than a five-year cycle, but, while we can predict some things that are coming, be it artificial intelligence or robotics, I would argue that we probably would not have predicted when I was a houseman that housemen now would not be holding on retractors night after night for gastric surgery because of antibiotics. There are disruptive technologies that come along and totally change it, so we do not want to set it that far out.

On the other hand, to take one of my favourite subjects—antimicrobial resistance—because of the long-term nature that is able to be modelled, we have done some long-term planning, not only for the nation but a big piece of work internationally.

Lord Kakkar: Sir Mark, does the horizon-scanning function feed into a view about longer-term planning for the delivery of healthcare?

Professor Sir Mark Walport: I think that, ultimately, it does. Of course, your Lordships will remember that Lord Filkin produced a report from the House of Lords on ageing and, partly as a result of that, the Government Office for Science undertook the Foresight report on the future of ageing and the Centre for Ageing Better has been set up as a result. That evidence has fed into government.

Let me answer Lord Patel's question directly. Looking at the future, one obviously has to look through the lens of demand and then the lens of

supply. Looking at it through the lens of demand, the demography shows that the demand will increase because, as an ageing population increases, if we fail to compress morbidity, which is the big challenge, the demand will go up. A number of things can be done to reduce the demand, including the discussion about housing, transport and all the factors that determine whether people are likely to end up requiring healthcare or not.

On the supply side, which is the NHS itself, one has to look at that through two lenses. One is around efficiency and effectiveness, and a lot of work has been done on that, which we will come to in just a minute on how technology can help. The other challenge is that there is only a certain amount you can do to improve efficiency and effectiveness and, as the volume of demand goes up, inevitably, there will be a need for an increased volume of supply as well. You have to look at it through all those and there is no single dial that you can turn to meet the challenge.

Q320 Lord Warner: I have spent a large part of my life engaged in public expenditure reviews, and the thing I have learned from that is that the Treasury is interested in forecasts of money. What I am interested to know from all three of you is that, if you look at Michael Marmot's review, *Fair Society, Healthy Lives*, and what he has just said, there is a whole raft of social policy issues that will impact very seriously on the NHS in the future. Where can the Committee find in the bowels of the Government any piece of analysis setting out the long-term implications of these proposals, not just for social justice but for the expenditure of the NHS? Where can we find this information which will reveal that the Government have costed the implications of failure to change these social policies on the NHS?

Professor Dame Sally Davies: There was a health White Paper quite soon after Sir Michael's report, which addressed some of these issues, as you will remember, and there was analysis behind that. I can tell you that the demographics and these issues are a part of the comprehensive spending review planning and that cycle.

Lord Warner: I am asking for some numbers. Where does it say that if you carry on along this path, the cost to the NHS will go up by X%?

Professor Dame Sally Davies: The numbers have been modelled by the OBR and various people. What we know is that it varies across the OECD, that we are in the middle of the OECD, and that, because, as incomes go up, demand can rise, it is almost inexhaustible. We will talk in a bit about new technologies, whether they can save money or will cost more money, but there is quite a lot of work if we go looking for it.

Where the problem comes is that housing are doing their work in local government and, more and more, with us giving the public health grant to local government, we are expecting local government to take the right decisions around place and plan for their areas.

Lord Warner: We do not know, as far as I can see. Michael, what is your

picture of this?

Professor Sir Michael Marmot: I do not think we generally do the accounting in quite the right way. For example, there are numerous estimates of the cost to the NHS of obesity and there are numerous estimates of the cost to the NHS of alcohol.

If we take alcohol, we know that, in general, the higher people's status, the higher the average consumption of alcohol. It is not the case that the poor drink more than the rich. It goes the other way: the higher you are, the more likely you are to drink and the more you drink, on average. However, when we look at alcohol-associated harm, cirrhosis mortality and alcohol-related hospital admissions, it goes the other way and, the lower you are, the more likely you are to get into harm from drinking. If we really want to address alcohol-associated harm, we have to address not only alcohol but inequalities.

The same goes for obesity: if we want to address obesity, we have to address not just physical activity and diet but inequalities. Now, we do not tend to do the calculations that way, but we tend to calculate the cost to the NHS of obesity-related illness and alcohol-related illness. I would argue that the real cost comes from not tackling inequalities, and we tend not to do the accounting that way.

For what it is worth, in my 2010 review, we put some numbers in. I did not believe them, but we put some pounds in because we thought we had to, though you could come up with any number. I think the real issue is that, whatever number you come up with for the cost to the NHS of obesity and alcohol, you are understating the problem because you are not saying what the cost to the NHS is of not addressing the underlying inequalities.

We know that this has been done many times. I do not usually quote Chicago economists, but James Heckman said that for every dollar you spend on early child development, you save \$7 in less crime, less healthcare use and fewer social problems. Certainly, for early childhood it is a very good investment. At later ages, it is not such a good investment, but most of us of a later age think it is a good investment, despite the fact that there may not be high financial returns.

- Q321 **Lord Willis of Knaresborough:** This is a question specifically for Mark Walport, but all the panel may want to respond. It struck me, with my short involvement with science and health, that we spend an enormous amount of time looking for new pharmaceutical modules to improve healthcare, yet all the evidence to this Committee has said that one of the most significant developments that has to take place is the use of technology and, in particular, the use of digital information to drive a modern healthcare system. What innovations or developments will have the most significant impact, do you think, on the medium and short-term sustainability of the NHS? How good do you think the NHS currently is at taking advantage of these new developments, and who should be driving them? We heard last week from the Secretary of State that, while all GP

surgeries are now fully digitised, whatever that means, the tertiary systems are not and there is no real connection between them. Who will drive that because, if we do not get that right, the rest of it, frankly, will just not fall into place?

Professor Sir Mark Walport: Thank you, Lord Willis; there are a lot of questions embedded in that. Taking them in turn, first, of course, it is technology outside the NHS as well as inside the NHS, so there is the whole question of how we can use technology to reduce demand. There is the question of how technology can assist people in ill health in living effectively in the community, whether by better management of their diabetes or better care in the home, so there are very important uses of technology there.

Focusing inside the NHS, first, you are absolutely right that technology to improve the logistics of the NHS will be extremely important. It is about how we connect up data between primary, secondary and tertiary care, and how we use data to link between secondary and tertiary care and social care. The potential here is enormous. This is a worldwide issue. I am probably misquoting Bill Gates, but I think he once said that, basically, technology has transformed almost every service industry that there is, except health, so there is a challenge to get it embedded in health. Part of it is about the natural sensitivities of confidentiality of data, but nevertheless there are very good examples.

You ask how good the NHS is at the uptake of innovation. At its best, it is very good indeed, but the problem is that it tends not to disseminate fully throughout the health service, so you can find islands of very good practice. One example would be the Queen Elizabeth Hospital in Birmingham, where they have had a decision-support tool that they have deployed for over 10 years; they have dashboards on every ward; you can see when every prescription was given and by whom; they have reduced prescription errors; and they have reduced the mortality of patients coming in through accident and emergency.

Lord Willis of Knaresborough: May I just stop you there because we could cite lots of single examples, and that is the problem—there are lots of single examples. If you go to remote parts of North Yorkshire, Cumbria or wherever, you will not find some of those but you will find others. All the evidence is there that you need to do this, so where is the driver to make it happen on a scale? John Bell, for instance, said in the States that digitising the whole system happened within months, or perhaps years. Without that, you cannot depend on all these other systems because they require that digital basis of information. Where are we doing it and who is driving it?

Professor Sir Mark Walport: You are asking a very good question. I am not sure that the Government Chief Scientific Adviser necessarily has the answer to this.

Lord Willis of Knaresborough: But you have all the information.

Professor Sir Mark Walport: Ultimately, this is a leadership and managerial issue, which is how you distribute good practice. As I say, there are many examples of good practice, and this can be done at scale. Scotland, for example, although it has roughly a 10th of the population of England, has reduced amputation rates in diabetics by 40%.

Lord Willis of Knaresborough: Should we split up England, for instance, into smaller NHS units?

Professor Sir Mark Walport: That is effectively what is happening. You can look at what is happening in Manchester, where the budget has been devolved, as an example of where that is happening.

Lord Willis of Knaresborough: But that means nothing to Burnley, which is only a few miles away from it and is not included.

Professor Sir Mark Walport: Again, you are asking a managerial question. You have identified that one solution to divide the country into tractable-size population groups.

Lord Willis of Knaresborough: Would you recommend that?

Professor Sir Mark Walport: I think that is outside my remit, really.

Q322 **Bishop of Carlisle:** This is really a question to Sir Michael. I am going back to your 2010 report, *Fair Society, Healthy Lives*, which you have talked about. You have made it clear that, as you see it, part of the real cost with regard to public health is not tackling inequalities. You have also made it clear that not much progress has been made with regard to your six key objectives over the past six years, and you have painted a fairly gloomy picture of the future. What, as a Committee, do you think we should be recommending in this area? Should it revolve around early childhood, as you were suggesting a moment ago? Is that the key area? Obviously, all these things are interrelated, so it is difficult to single out one, but, if we were to go for something that would make a difference in the future, would that be it?

Professor Sir Michael Marmot: I have always resisted coming down on one. I was asked several times, "What's the one thing that you recommend?" and I said, "Read my report". I think the six are interrelated. For example, I would not say invest in early childhood and tolerate the reduction in spending for public health, because the reduction in spending for public health has been very bad and we should not have done that. Dame Sally talked about the importance of prevention in public health, so reducing the public health spend is bad. Reducing the funding to local government by 23% is also bad, given that public health has now moved into local government, so I would not say only one.

However, if we take early childhood, that relates to a lot of other things; I have already mentioned the income of families with children. If you look at housing benefit, it is absolutely vital for people in work to have housing which then relates to the circumstances in which they raise their children, so by focusing on early childhood, you have to pay attention to

the others. You have to look at housing, income, the benefits system and the fiscal system, all with a view to reducing the inequalities in early child development. It is not a bad place to look because so many other things relate to it and there are, potentially, so many other benefits: a reduction in crime; a better-educated population; a more skilled workforce; more social cohesion; and narrower health inequalities.

Bishop of Carlisle: Has anything positive happened in any of those six areas recently?

Professor Sir Michael Marmot: If we look from 2000 to 2010, we see that life expectancy and disability-free life expectancy improved across the population. That is great; that is terrific. I have always said that we should have two societal goals, one of which is improving health for everybody, which has been happening. The second goal is reducing inequalities, which has not been happening. The gradient of the slope, in both life expectancy and disability-free life expectancy, has not changed in that 10-year period. Some of the reasons it has not changed are some of things I have been talking about and they have not, I regret to say, been very positive.

Q323 **Lord Scriven:** Going back to technology, I am totally perplexed. Medicine is about using data and innovation and modelling, but on the technology side what stops that? In going forward, everything we have heard is that data-driven systems, using technology—disruptive technology—will be vital in helping the NHS be sustainable. What needs to change to have this systematically ingrained in the NHS so it is successfully adapted? I do not mean one-offs, but a systematic approach to dealing with a model of what is happening in the world and making it work for the NHS and patients?

Professor Dame Sally Davies: Clearly, you need a management culture that values that and a workforce that knows how to use it. Although our younger people move past smartphones, many of the workforce do not. You then need enough funding but, as you know, over 70% of the funding in hospitals goes on staff. It is a political fact that you cannot mandate from on high that a hospital does X or Y because most are trusts and they have their own governance. You can do it through commissioning, but this is a very complex area that needs a lot of money. It needs a culture that values the technology and the data that go with it. That is one reason that I welcome Google DeepMind working, as long the privacy issues are right, with the Royal Free, bringing artificial intelligence in there. We are going to need more and more people to show we can do it. It is hard. Cambridge University Hospital, Addenbrooke's, introduced a new system which was very rocky and difficult in the beginning and patients nearly suffered. I am reassured that they did not suffer, but because it was so difficult the chief executive who had had the vision to sign it off was sacked. The culture is not one of grappling with it.

Lord Scriven: If younger people come in and if the management system is right, is there something system-wide that needs to change? Where is

the investment model? Sir Mark said that we do not disseminate good practice. That is not just an issue about management of implementation. Systematically, across the piece, what is needed at central level to help and support the inevitable being implemented well?

Professor Sir Mark Walport: There are examples where the NHS disseminates better than almost every other system in the world. NICE is a very good example where assessments of treatments, be they devices, drugs or other interventions, are assessed and distributed very well.

On data, which is a critical question, part of the challenge is, "I would not start here", as it were. We start with a system which has separated GP records from hospital records and one hospital's records from another hospital's records. The challenge is to take a system where the lines of accountability have historically been different. We need three things. First, we need to achieve integration of health records; that is absolutely critical.

Lord Scriven: How? That is the issue.

Professor Sir Mark Walport: I will come to that in a second. Secondly, it comes to Lord Willis's point that we need local ownership of this. This has to be done ultimately at a local level. Thirdly, it needs accountability. When you have properly integrated records, you achieve much better accountability for healthcare provision.

At the end of the day, how this is achieved is about management and leadership. That is where science comes to its limits.

Q324 **Lord McColl of Dulwich:** Sir Michael, you mentioned that the demands are due to the old people getting older. The old people have always been getting older, but what is new is that in the last 30 years the young people have been getting fatter and fatter. I look back to the AIDS epidemic when the Department of Health had a very stark, honest approach and said, "If you behave like this, you are going to die". It was stark—it did not talk about equality, inequality or anything like that. It was just the plain, unvarnished truth and it worked. Some of us, including the Secretary of State, are very keen that we should have a big drive on preventive medicine and point out to the public that half the expenditure of the NHS is on treatment of the complications of obesity. The problem is that the public have been misled by scientists, the food industry, the Department of Health and NICE with all sorts of crazy things such as all the calories we eat go on exercise, which is not true. The emphasis on exercise was a very big mistake. What would you say if our report went for an all-out campaign nationwide, involving every man, woman and child, telling them the stark truth: they are going to die if they go on eating as they are? It is a complicated business but, at the end of the day, you are what you eat. What would you respond to that?

Professor Sir Michael Marmot: When people get concerned about the nanny state I say, "Don't worry; no one listens". Simply telling people what is good for them is largely ineffective.

Lord McColl of Dulwich: What about the AIDS epidemic?

Professor Sir Michael Marmot: That was largely ineffective. When we had the no smoking campaign, we had a whole series of efforts other than simply telling people what was good and bad for them. We banned advertising, there was a public places ban, new labelling et cetera. Taking my obsession with inequalities, we know that the ban on smoking in public places is one of the few interventions that actually affected smoking across the gradient. Low-income people reduced smoking as did high-income people did in response to the ban in public places. We know that simply telling people is largely ineffective. We know that for obesity. We knew it for smoking until we took a "broader social determinants" approach to smoking.

Although obesity is part of the problem, let me go back to the US. I put us somewhere between Finland and the US when I was talking about schooling. We know that the causes of the rise in mortality in non-Hispanic whites aged 45 to 54 are: first, poisonings due to drugs and alcohol; secondly, suicide; thirdly, alcoholic liver disease; fourthly, violent deaths. When you look at the excess mortality in Glasgow compared with Liverpool and Manchester, the causes are: poisonings due to drugs and alcohol; suicide; alcoholic liver disease; violent deaths. These will not be addressed simply by telling people to behave better. We have to deal with the social causes and the same applies to obesity. We have to deal with the social causes of obesity, not simply tell people what is good for them.

Lord McColl of Dulwich: So you do not think there was a mistake in telling people, as was done, that we need a low-fat, high-carbohydrate, high-sugar diet and you must have more exercise. Do you not think that had any effect?

Professor Sir Michael Marmot: I am not against conveying scientific evidence in the clearest way possible. I am for it and we should indeed give people the tools. Simply giving people the knowledge is not enough if you really want to make change.

Lord Warner: Is there not a problem about the protection of resources to carry out these prevention and public health programmes? Looking at the evidence which has been put to us, we are seeing in-year cuts to public health funding locally and, we think, nationally. There is a bit of a smokescreen over it but have we moved to a point where we have to be much more robust about protecting the resources that are allocated to public health and prevention programmes? Talking about the percentage of GDP, should we ring-fence money for a period, such as five to 10 years—something a bit more dramatic than what we have been doing of late?

Professor Dame Sally Davies: Of course I would welcome more money spent on public health field and prevention field, although it need not all be spent by Government at the centre. I could give you examples of our social marketing that have been successful in this arena. At the local

government level—the place level—it is important when thinking about health that it is not just about providing sexual health services or stop smoking services; it is about transport policies, green parks policies and all of that. There is no silver bullet for any of these difficult public health issues.

Lord Warner: I have a very straightforward question. Should we protect the money that is allocated and stop in-year cuts? ASH say that cessation programmes for smoking have been cut by about 60%. How do we protect the budget that has been allocated for public health and prevention?

Professor Dame Sally Davies: I thought I gave a straight answer.

Lord Warner: You said you would like a bit more. Are you prepared to go on record and say that there should be some protection for these budgets when they are allocated?

Professor Dame Sally Davies: I am already on record as asking for continued ring-fencing of the public health budget.

Lady Blackstone: Why do you think it does not happen?

Professor Dame Sally Davies: In times of austerity, there are very difficult decisions to be made and central government feel that local government should be able to make its own decisions about it. I have some sympathy with that but I worry about the public health budget.

The Chairman: Michael, earlier you commented on the cuts in the public health budget having an effect. We were told in previous evidence by the Secretary of State, "I am afraid I do not accept that a public health budget being cut automatically means that we are unable to make progress on the big public health issues of the day". We are discussing the big public health issues of alcohol, obesity and others. Does that statement agree with what we just heard about public health cuts?

Professor Sir Michael Marmot: I disagree with that statement. I always saw public health moving into local government as an opportunity. Some people in public health saw it as a threat but I saw it as an opportunity. When I was giving evidence to the Health Select Committee, I told them about Coventry. They then made a trip to Coventry, which declared itself a Marmot city. They said, "We want to take your six recommendations and we want to apply them across the city". That has to happen alongside the kind of things that normally happen within the public health envelope. They have to happen together. Coventry was saying on my six recommendations, "We are going to deal with all of those and we need a public health budget at the same time".

To take Lord McColl's question, I am entirely sympathetic to what you are suggesting about the importance of obesity nationally and the damage it is doing to NHS finances. However, I am saying that alongside the public health budget we have to look at local government activities. Mark Walport was supporting me very much in talking about housing, transport

and the like. If you are cutting the public health budget and cutting local government funding that makes the task of dealing with public health extremely difficult.

Professor Sir Mark Walport: We are getting to the nub of the issue, which is that the biggest advances in human health have come from public health measures. Michael Marmot made the point just now that we are talking about a success story. On average, we are living longer and healthier lives than any previous generation of humans. Although there is still a very significant gradient of inequality, everyone is living longer.

The second point, which is starting to come out, is that by focusing solely on the NHS you may miss the big target, which is how you reduce demand and enable people to stay out of the NHS which, as Dame Sally has already said, is configured to deal with disease.

Clearly the best policy requires the best evidence and I would say that public health research is also extremely important. Coming back to Lord McColl's point about obesity, I agree entirely with the answer that Sir Michael Marmot has given that telling people they must eat less simply does not work. This is a global issue. When populations are allowed access to affordable food with very high calorific intake, they will get fat. It is worth remembering that there is a very strong genetic component to obesity as well. Sometimes the obvious answers turn out not to be correct.

When you come to make your recommendations, it is important that you think about the fact that it concerns the whole of government and that there is a political question about public expenditure at a time of austerity in everything from education to transport to health.

Professor Dame Sally Davies: I would like to add two points. Of course, the Secretary of State had a point when he said that to introduce regulations costs nothing. The latest research, which comes out in the *Lancet* this week, suggests that the sugar levy should reduce obesity in children by 10%. Advances are being made. As we talk about public health, we should not forget the significant expenditure within the NHS on immunisations, vaccinations, screening and the lives that that saves.

Q325 **Lord Ribeiro:** We are getting the message that in terms of effecting change you need to have legislation rather than the need to change people's habits and practices. Thinking back to the ban on smoking in cars with children present, there you are protecting a new generation. That is perhaps where we should be going rather than trying to force through change in established practice with people who may change one way or the other. They have a habit and may not be influenced by advertisements or legislation. However, the next generation will be influenced by it and, therefore, when we talk about the long term, perhaps we should be focusing much more on how we ensure that the young are protected.

Professor Dame Sally Davies: As I have said, there is no silver bullet. We need to approach these big challenges, particularly obesity, in many different ways. I would remind you that, for plain packaging, it took 20 years for politicians to put the law in place because the media and the public did not see it as right until then. The sugar levy is a great start which we will not be able to progress further until the public understand the damage that this is doing to them. I often go out and talk about how now 63% of adults are overweight or obese. That means they are an unhealthy weight and we have normalised unhealthy weight. It is not helped by the media, who show either dreadfully skinny or pathologically fat people and do not inform people who are a bit overweight that it is impacting on their health. There is a long way to go with the public and we need to work, as the obesity plan says, through the reformulation, cutting out 20% of sugar and fats, just as we had a success story with salt. Many things will need to be done. Schools will have a role to play in this, just as educating mothers does.

Q326 **Lord Scriven:** I would like to come back to where we started—long-term planning. At the start it was really interesting that you were giving all these statistics, Sir Mark, about what is happening. Then your answers reinforced what we have found as a Committee, that there does not seem to be any long-term planning about health and social care and what all these issues mean. I am not just talking about advances in one technique or another, but what it means in moving forward and making the whole system sustainable. I know there are some unknowns in that. Do you generally feel inside the system where you are, and Sir Michael outside, that there is a lack of long-term planning? This is not a criticism, but rather feedback that we have had: to help long-term planning about a sustainable NHS and social care system, we may need independent analysis or an arm's-length body to look at workforce and healthcare systems based on medical advances, demography and productivity in order to help plan and deliver a long-term sustainable health and social care system.

Professor Dame Sally Davies: As I am closest to the system, I imagine it falls to me to start. We have an arm's-length body, Health Education England, which does the long-term planning and has been informed by figures from the Centre for Workforce Intelligence. That is part of it. The question from your perspective is whether it is doing a good enough job. Those of us who are medical know that when Governments have tried to do long-term planning for doctors they have never succeeded. It either overproduces or underproduces. Our experience of long-term planning, at least for doctors, has been a disaster in this country.

There is much more debate around the data, what it means and how to use it than is clearly apparent. I am not convinced that having an outside body commenting over and above the excellent think tanks that we have, which analyse and contribute reports and views which are read very carefully and do help, would be useful.

Lord Scriven: Systematically, where does it feed in to force the system to change and adapt? That is the issue. We do not get a sense of that

anywhere. You are dealing with five years or you are dealing with the deficit. Where does all the work that is there feed in and how does it systematically help to adapt so that you make early changes to deliver a more sustainable NHS?

Professor Dame Sally Davies: That is Simon Stevens's job. He receives the data, he debates it with the department and there is a discussion which, as I am more interested in public health, I rarely join. This deals with what it means and how commissioning is being adapted. It was set up by Parliament not to direct services but to commission them.

Lord Scriven: Can you give me an example of any commissioner, again coming back to Sir Mark's point about disseminating information across the NHS, which is a good, long-term commissioner?

Professor Dame Sally Davies: I am not close enough to it. I can find one and send you a note if that would be helpful.

The Chairman: That would be helpful, thank you.

Professor Sir Mark Walport: The question in my mind is: what are the early changes that you are looking for that are not being carried out at the moment? The challenge is to make sure that we take advantage of the informatic capabilities that we undoubtedly have. If you are looking ahead to 2030, what we need to do is what is being done. The question is whether it is scaling up and whether good practice is being disseminated fast enough. Looking to 2030, the things that need to be done are around the NHS having better integration and better informatics, using technology as it becomes available and adapting homes. We know what to do; the question is how to do it most effectively.

Lord Scriven: Is something systematic needed or is this just ad hoc? That is the question we are trying to address. Everybody outside the service, and even some people inside the service, have said it is more short to medium-term, rather than having some strategic long-term support to deal with the problems and the issues that are coming downstream.

Professor Sir Mark Walport: You have had the opportunity to speak to Simon Stevens, chief executive of NHS England, and you have had the opportunity to speak to Chris Wormald, Permanent Secretary of the Department of Health. Those are questions more for them than for me.

Lord Warner: They gave totally different answers, but we will put that to one side. I want to pursue this a little further. Is it not the case that Governments across the parties—it is not a party-political issue—find it uncomfortable having long-term projections, which suggests they are currently on the wrong trajectory? If you have a long-term view being expressed by an independent body, you start to educate the public. That public debate does not take place under the present sets of arrangements.

Professor Sir Mark Walport: An example of where that has happened is around climate change, where we have legislation going up to 2050 and we have the Paris agreement. Politicians around the world have looked ahead. The devil is in the detail and the implementation, but it shows that it is possible.

Lord Warner: There were courageous people such as Dave King, who was inside saying some of this stuff, but there was an independent body outside stimulating a public debate.

Professor Sir Mark Walport: There was the Intergovernmental Panel on Climate Change, which certainly did the evidence meta-analysis. We know what to do; the question is about implementation.

Professor Dame Sally Davies: Lord Warner, let me reassure you, I know that Ministers and the senior people understand the big issues and that something needs doing. I echo Mark's comment that this is a very difficult, knotty problem and, unless you understand the system well, it is very difficult to get to grips with it, particularly in its present political configuration. We have all been trying for years to get more patient care outside hospitals. There will have to continue to be efforts. It does not need anyone to say that again. Everyone knows that is one of our objectives.

Lord Kakkar: Sir Mark, in terms of the national risk register, how many questions around the sustainability of the NHS would appear in that kind of analysis?

Professor Sir Mark Walport: I do not believe the sustainability of the NHS per se appears but the topmost risk on the national risk assessment is, in fact, pandemic influenza. Health issues come up but not specifically the NHS.

Q327 **Lady Blackstone:** What is your key suggestion for a change that the Committee ought to recommend to sustain the NHS in the longer term? Could you each tell us that?

Professor Sir Michael Marmot: Part of the longer-term planning for sustainability of the NHS has to involve longer-term social and economic policy planning for the key drivers of health outside the NHS. I would argue that there are two reasons the Government should do it. The first is that everybody cares about health. Health wins and loses elections. The second is a rather more intellectual argument, which is that health and health inequalities tell us a great deal about how well we are doing as a society. Given that the key drivers of health and health inequalities are not only what happens within the NHS, but what happens in these wider social sectors, that means we should have cross-government planning for the future so that we do not suddenly say, "Oh my God, we forgot about care", or, "Oh my goodness, we forgot about early child development", or, "What a pity that we are not doing so well on education". We should have cross-government planning for these key

domains, which will help the sustainability of the NHS, improve health and reduce health inequalities.

Professor Sir Mark Walport: I would answer in two parts. The first point is whether we really can compress morbidity because that is the critical issue in terms of healthcare need. Going back to Lord McColl's question, we know in principle that if we manage diabetes better, manage blood pressure better and can keep people's weight down, that will help to compress morbidity. However, there are still conditions such as Alzheimer's disease and classical dementia, where we do not know the extent to which we can compress morbidity. We are all to die of something—that is the one thing we know for certain. The question is how long it takes to kill us and how much misery there is on the way. There are some unknowns there.

When it comes to the knowns, it all has to be about the promotion of better public health. Any solution to the NHS challenges involves looking as much outside the NHS as inside it. Inside the NHS it is about efficiency, effectiveness and managing the volume as it comes down the line. We come then to the point Dame Sally has made that we need the right care in the right place. We should not be managing people with minor conditions in accident and emergency departments.

When it comes to public health, it is about empowering individuals to take responsibility for their health, recognising that simply telling them to lose weight does not usually work. Employers are important in promoting the health of their workforce. The environment in which we live, work and play is absolutely critical, so we need to look at travel and housing. Many branches of local and national government have a role to play in this. Unless you look outside the health service, you will not solve the problems inside the health service.

Professor Dame Sally Davies: We need a society that wants to enhance the health of every member in it. That starts with individuals, their families and communities. The NHS has a role to play. Health protection against infectious diseases is very important, but we have to take a very mixed approach to the big challenges such as obesity, continuing concern about smoking and alcohol. We have not talked about physical activity, about which we have the data and it is shocking how physical activity at all ages is falling, which will have an impact on our health. It is never too late to start.

The Chairman: Thank you all very much. I know you are busy people. Thank you for making time today to come. I know we could have gone on longer but our time is limited. I wish you all a happy Christmas and a happy 2017.