OFFICIAL REPORT
AITHISG OIFIGEIL

DRAFT

Health, Social Care and Sport Committee

Tuesday 13 January 2026

Session 6

The Scottish Parliament
Pàrlamaid na h-Alba

Tuesday 13 January 2026

CONTENTS

HEALTH, SOCIAL CARE AND SPORT COMMITTEE
2nd Meeting 2026, Session 6

CONVENER

*Clare Haughey (Rutherglen) (SNP)

DEPUTY CONVENER

*Paul Sweeney (Glasgow) (Lab)

COMMITTEE MEMBERS

*Joe FitzPatrick (Dundee City West) (SNP)
*Sandesh Gulhane (Glasgow) (Con)
*Emma Harper (South Scotland) (SNP)
*Gillian Mackay (Central Scotland) (Green)
*Carol Mochan (South Scotland) (Lab)
*David Torrance (Kirkcaldy) (SNP)
Elena Whitham (Carrick, Cumnock and Doon Valley) (SNP)
*Brian Whittle (South Scotland) (Con)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Professor Jill Belch (Royal College of Physicians of Edinburgh)
Professor Peter Scarborough (University of Oxford)

CLERK TO THE COMMITTEE

Alex Bruce

LOCATION

The Alexander Fleming Room (CR3)

Scottish Parliament

Health, Social Care and Sport Committee

Tuesday 13 January 2026

[The Convener opened the meeting at 09:15]

Decision on Taking Business in Private

The Convener (Clare Haughey): Good morning, and welcome to the second meeting in 2026 of the Health, Social Care and Sport Committee. I have received apologies from Elena Whitham MSP for today's meeting.

Agenda item 1 is for the committee to agree on whether to take items 3, 4 and 6 in private. Do members agree to take those items in private?

Members *indicated agreement.*

Draft Climate Change Plan

09:15

The Convener: Item 2 is oral evidence from a panel of witnesses on the draft climate change plan and its implications for public health in Scotland. This is the first of two panel sessions that will provide evidence as part of the committee's scrutiny of the draft climate change plan. The second panel session is scheduled for next week's committee meeting.

I welcome Professor Jill Belch, co-chair of the air pollution working group at the Royal College of Physicians of Edinburgh; Professor Ruth Doherty, chair of atmospheric sciences at the University of Edinburgh's school of geosciences; Professor Peter Scarborough, professor of population health at the University of Oxford; and Dr Andrew Sudmant, from the Edinburgh Climate Change Institute at the University of Edinburgh. Professor Doherty and Dr Sudmant are joining us online.

We will move straight to questions. I will pass over to David Torrance.

David Torrance (Kirkcaldy) (SNP): Good morning. Witnesses, do you think that the policies and proposals set out in the climate change plan will improve indoor and outdoor air quality, and do they draw on the best available evidence?

Professor Jill Belch (Royal College of Physicians of Edinburgh): May I answer that question? The ambition for outdoor air quality is reasonable. There is an ambition to reduce air pollution. However, the plan has missed out something important in that it has not talked at all about ozone. As you may know, Scotland does not really control ozone. A lot of it comes from Europe and from England. It can damage health, but the problem occurs when it mixes with VOCs—volatile organic compounds—which come off paint, fuel, industry and even chairs, couches and sometimes vegetation. What happens is that they prevent ozone from being metabolised. There is nothing in the plan about any legislation to have fuel covered, to reduce paint spillage, and so on. My impression is that it is one thing that is missing.

The second missing thing is ammonia, which, as you know, comes from urine, manure and fertiliser. When ammonia is hit by increased temperatures, it combines with NO_2 and SO_2 to form ammonium nitrate and ammonium sulphate, which are forms of $PM_{2.5}$, which, as you know, are the most toxic compounds. Things can be done, such as covering slurry, managing how it is spread and not fertilising during high temperatures—you can have legislation for that. That has, in my opinion, been missed.

Otherwise, the plan has done really well on external air quality, and it has summarised the literature. However, internal air quality has hardly been touched on. Some committee members may know that the Royal College of Physicians of Edinburgh wrote to the Government asking that wood stoves not be permitted in new builds. Wood stoves produce about 20 to 29 per cent of all the $PM_{2.5}$ in the United Kingdom. Only about 8 per cent of people in the UK burn wood, although the figure may well be higher in Scotland because of our rural community. We are now introducing—thank goodness—legislation for warmer houses and for insulation, but that in itself will stop air circulation. There is excellent work out there showing that the stoves that have been approved by the Department for Environment, Food and Rural Affairs—that is, the so-called eco-stoves—produce about 400 times more $PM_{2.5}$ than gas boilers, while, of course, electricity produces none at all. To me, those are the three missing components in the air pollution climate change document.

David Torrance: Do any other witnesses want to come in on that point? No? Okay. Could there be any unintended consequences for health or inequality from the policies?

Professor Peter Scarborough (University of Oxford): Do you mean generally in relation to air quality?

David Torrance: Yes.

Professor Scarborough: I work on food and diet, so I will speak only about the agriculture elements. I do not think that the proposals that have been put forward in the agriculture section of the draft climate plan will have any particular impact on public health inequalities, because there are not really any policies in it that would change consumers' diets. The proposals seem to be based on agriculture and technologies to reduce average emissions from the production of food, rather than changing the type of food that is being produced. There seems to be almost no commitment in the climate change plan to changing diets; there seems to just be a commitment to changing the way that food is produced. My impression of the agriculture section is that, because there will be no real impact on health, there will not be much impact on health inequalities.

Professor Belch: We know that air pollution strongly produces health inequality. Therefore, there will be benefits as we reduce it. The issue is that one of the ways that we are reducing air pollution is by using more electricity, and there might be some concerns about battery chemicals if they are placed near communities.

Another issue, which members will probably be familiar with, relates to electricity generation. Community councils in Scotland are banding together because of the concern that there are disadvantages from electricity generation for people who live close by—although I am not convinced of that—and they feel that they are not getting benefits from it. For example, the Scottish Government has policies for community benefit from wind farms, but, as far as I am aware, there is nothing for solar farms. Therefore, people who are close to solar farms are having their green spaces—which are important for health—removed, but they are not getting cheaper electricity.

Unfortunately, as I am sure members know, there is a groundswell in several places towards trying to reject planning permission for energy generation projects, which is basically because there is no perceived advantage to the Scottish population.

Brian Whittle (South Scotland) (Con): Good morning. I am interested in the data on change of diet. I had a meeting yesterday with Food Standards Scotland about its report, and I was pleased to hear that it has the same concerns as I do that, although the overconsumption of red meat is a problem, the underconsumption of red meat is also a problem. There is no differentiation in the plan between red meat, white meat and other kinds of processed meat, which is a worry. The generalisation about reducing meat consumption by 20 per cent by 2030 and then later by 35 per cent will not lead to a healthier diet. I want to hear your understanding of where those figures come from.

Professor Scarborough: The Climate Change Committee report is clear about having a pathway for bringing down meat consumption. Maybe I am missing it, but I could not see that in the climate change plan. The plan talks a lot about agriculture and technology, and there is a goal in the annexes in relation to a diet with 70g of red and processed meat, but there are certainly no policies about changing diets. Therefore, I am not sure whether that target is in the plan.

Brian Whittle: I am talking about the Food Standards Scotland report and the way in which it has been interpreted.

Professor Scarborough: Okay—you mean the Food Standards Scotland report and what underlies it. It is a question of the evidence for the health benefits of reducing meat consumption in general.

Clearly, different categories of meat have different health impacts, and the ones for which we have the best evidence of health impact are red meat and processed meat. That is clearly the case.

The impacts of red meat and processed meat on cancer risk have been well documented.

You have to be careful with this, though. Although the evidence is as strong as the evidence supporting the impact of tobacco consumption on health outcomes—that is certainly the case for processed meat; it is slightly lower for red meat—that does not mean that the effect size is as big as that of tobacco. We do not want to conflate those, but we need to understand the evidence level and that there is good enough evidence out there to support it.

There is further evidence from observational studies relating to red meat, processed meats and general meat consumption of issues such as obesity levels, diabetes and cardiovascular disease. There is evidence out there that if you reduce your meat intake, particularly your red and processed meat intake, you are improving overall public health.

I also understand that you are saying that if we reduce our meat intake too much, down to the lower end, you have concerns about micronutrient consumption in vulnerable groups. That is certainly the case, but you could argue that that would be the case for a lot of different dietary goals. With a lot of dietary situations, you are looking at hitting the sweet spot.

At the moment, meat consumption levels are too high. They could do with coming down, yet if you are reducing meat consumption levels and shifting that distribution, you have to be concerned about the people who are already eating quite low levels. You have to look at how you protect them and ensure that those people are getting adequate nutrients from their diets; however, that does not mean that you should not be looking also at the high end. I would support that.

The idea with the Food Standards Scotland goal of around 70g of meat consumption was to ramp up the ambition to reduce meat. That goal involves reducing the level below what is suggested in the United Kingdom, because the supporting modelling took the approach that if we reduce it to that amount, not only would it have public health benefits, it would also have benefits around climate change and other environmental aspects.

Brian Whittle: I have to say that I agree with you that we should get processed meat out of the diet, for sure, but I am concerned that we talk about obesity and diabetes being linked to red meat when, actually, they are linked to higher intakes of sugar, refined carbohydrates and all that sort of nonsense. Surely that is what we need to be tackling.

We should be eating what we can produce, because, from a climate change perspective, we will end up importing most of our food, which must go against the climate change objectives.

Professor Scarborough: Obesity can be related to more than one thing. Yes, it is related to sugar and salt consumption, but it is also related to red meat consumption.

Brian Whittle: It is just not.

Professor Scarborough: The evidence is that, if you are reducing meat consumption, you see a reduction in body weight levels and in diabetes levels—

Brian Whittle: I am sorry to interrupt you, but we have eaten red meat ad infinitum, and obesity has become a problem only in the past 20 or 30 years.

Professor Scarborough: We have not eaten red meat at the levels at which we are consuming it at the moment.

Brian Whittle: Tell me how that is related to red meat.

Professor Scarborough: Red meat consumption in the UK is at a historically high level, although it is slightly scaling down. If you look at it in terms of the amount of consumption over time, the levels are far higher than they were in the 1940s or 1950s.

Brian Whittle: But is that processed meat? Are we talking about processed meat or are we talking about fresh meat that we produce? What are we talking about here?

Professor Scarborough: Both have been going up since the 1940s or 1950s—they are both higher than they were. This is where we are at. Meat has become a staple within the diet in a way that, historically, it had never been. It has been that for the past 30 or 40 years—I am not suggesting that anything has changed since then—and there have been historically high levels of obesity and diabetes compared with the levels throughout most of human history.

In the west, there are countries where meat consumption is much higher than in Scotland, but levels in Scotland are higher than the global average and higher than in a lot of countries that have much healthier diets than we do—for example, Japan and Italy.

09:30

Brian Whittle: Just finally, should we be doing more? Generally speaking, the production of meat has a high-carbon footprint globally. We should be exporting our knowledge of how we produce meat in this country, as compared with the United States, the far east or Argentina. Should we be

differentiating between the way in which red meat is produced here and globally?

Professor Scarborough: Yes, without a doubt. The Climate Change Committee's carbon budgets report is quite clear that things really need to crank up by 2045—that is when big changes in agricultural production will be needed. It is quite clear that you will not achieve the target without big reductions in livestock numbers and changes to diet. The demand for that is in the report, with a balanced pathway to get there.

A lot of what is in the balanced pathway for the changes to agriculture and diet is towards the end of those budgets—that is, there are moves towards that. I agree that if, in Scotland, you tackle only agricultural production and not demand, that will lead simply to reducing the amount of Scottish meat that is available and replacing it with imported meat from foreign markets, which probably will have worse climate impacts. Therefore, you must tackle supply and demand at the same time. If they both come down at the same time, you gain the benefits that come from freeing up all that land, which you can then use, as is mentioned in the land use section in the CCC's report, for all the carbon sequestration potential and the other environmental benefits that are available as a result of that.

It is definitely possible to make such dietary changes, but doing so will take time. The Government should be thinking about bringing in policies now. Those should include producing lower amounts of healthy, sustainable meat. I am not talking about producing zero meat—not by a long shot. Lower-meat diets—reducing the amount of meat—will help to reduce the pressure on the system and allow us to achieve the balanced pathway that the Climate Change Committee has put together.

Brian Whittle: Am I out of time, convener?

The Convener: No—on you go.

Brian Whittle: This might be one of the most important topics that we discuss in relation to the health of the nation in this whole year. My worry is that people, especially young girls, who are not eating enough meat as it is will reduce their meat consumption even further. We are already getting to the point at which they do not have the micronutrients that they need.

It is all very well talking about this from a study perspective, but we must consider the practicalities of creating a healthy diet. What we cannot do is switch over our dairy production to arable. We do not have that kind of land—only 11 per cent of land in Scotland is arable. We are very good at producing dairy, meat, root vegetables and fruit. If that is what we ate, we would be very healthy, but we are not doing that.

My worry is that, from a climate change perspective, things will be worse, because we will end up not just importing meat but importing all the substitutes that are suggested.

Should we not be eating what we can produce and procure locally? That would tackle climate change much more effectively, and would impact health, too.

Professor Scarborough: That is exactly what the Climate Change Committee suggests in its report and through the balanced pathway—we should be eating a healthy, sustainable diet from what is produced in Scotland. However, in order to do that and get the agricultural sector to meet the net zero targets that the CCC has set, diet must be changed somewhat.

I agree that of course there are challenges in doing that and there are groups that must be considered when bringing in dietary change policies, but that does not mean that we should not do it or that we should just let diets continue as usual. Regarding diet, if we do not tackle the demand side, we will definitely get into a position in which we will need to import and we will have less control of the food that is in the system.

We could also miss all the potential public health benefits. In tackling the demand side, you would be setting up public health policy that helps people to achieve healthy and sustainable diets. That will only be beneficial. That will not be based completely around meat, by the way. If you focus your entire public health policies on reducing consumption of one product, there will be lots of different side effects and problems with that.

If you set it up around saying, "Right, let's create a food culture. Let's increase people's food knowledge and understanding and ensure that our food environments are set up so that people can easily make healthy and sustainable choices that support them in purchasing and cooking decisions. Let's give people the skills to make healthy, sustainable foods," that will go far beyond what kind of meat people are putting on their plate. We are talking about changing the culture so that people have the practical skills to cook a wide variety of foods and have a varied diet.

Brian Whittle: I very much agree with you about changing the food environment in which we work, but I think that you are tackling the wrong thing.

Emma Harper (South Scotland) (SNP): I grew up on a dairy farm and know that south-west Scotland has 48 per cent of Scotland's dairy herd. Farmers are producing their dairy products—their milk—in the most climate-friendly ways. That is their goal. The last thing that I want to do is vilify

food producers, because each farmer will be required to have a whole-farm plan that covers goals on achieving net zero.

I am interested in ammonium nitrate and issues around air quality. A lot of products are helping to support emissions reduction, especially in dairy farming. We have nitrate vulnerable zones, which means that farmers spread slurry at certain times to protect watercourses. Farmers across Scotland are already taking action, and I would rather not offshore our red meat production to somebody who might not produce it with the best welfare or climate change mitigation measures in mind. That said, I recognise that everybody needs to collaborate to achieve emissions reduction, and that we need to do what we can to reduce emissions in food production. Is it fair enough to say that we need to work together?

Professor Belch: I could not agree more. One of the things that I felt was missing from the plan was food security—there was not much on that. Brian Whittle made the point that we import two thirds of our food. When we had Covid vaccines, India kept them for their own population, and there was a fight with France and Brussels because they were making vaccines for us. When climate change gets to the stage where food security is a problem across Europe, countries will not produce food for us and let their own populations suffer. I understand the debates about meat reduction, but the pressing issue is food security. I agree with Emma Harper. We need to grow and produce our own food and, at the same time, take precautions against some—not all—farmers' emissions. That is why we need legislation on sustainable farming.

Emma Harper: I go back to air quality. Are we seeing an increase in chronic obstructive pulmonary disease and other lung health issues because of wood-burning stoves? We have concerns about that in rural Scotland, because wood-burning stoves might be the only way to heat your house.

Professor Belch: In the UK, $PM_{2.5}$ from wood burning is about 20 to 29 per cent of all $PM_{2.5}$. There is no doubt that, where you have high levels of wood burning, you have an increase in asthma and COPD. One of the big issues that people raise is the rural argument. I understand that to a certain extent but, therm for therm, electricity and wood burning cost the same. In fact, wood burning is slightly more expensive if you are purchasing your wood. If you are not purchasing your wood—a lot of folk do not—and you pick it up and do not dry it, it really is a killer. Similarly, wood taken from building sites might be treated with arsenic and other chemicals. You might know that, in London in 2023, the arsenic levels were almost at a dangerous level because of people taking wood and burning it.

We need sensible legislation that, for a start, prohibits the use of wood-burning stoves in towns and cities, while allowing them to be used in the countryside, and we then need to gradually improve our stoves. The stove manufacturers undertake a huge amount of marketing, but their adverts are not accurate in a lot of what they say. I have complained, and their adverts were removed. Very good studies have been done by Ricardo in Glasgow that show that eco-stoves produce as much $PM_{2.5}$ as having a diesel lorry in your sitting room.

Emma Harper: Thank you.

Joe FitzPatrick (Dundee City West) (SNP): My question follows on from the discussion about food security. It is possible for us to eat less meat in order to have a healthier diet while ensuring that more of the meat that we buy comes from this country. That relates to the point that Brian Whittle made about the fact that meat that is produced in Scotland will have less of a carbon impact on the atmosphere than meat that has come from Australia. I am concerned about the arrangements that, in effect, allow massive amounts of lamb in particular to come all the way from the other side of the world, which cannot be good for the climate.

I want to ask about food sustainability more widely. When we are talking about meat, we are talking about protein. The fields around Dundee produce massive amounts of beans and peas. Most of the broad beans that are available in supermarkets come from the fields around Dundee. That is a source of protein that has a huge health benefit as well as an environmental benefit.

The other source of protein that we do not talk enough about but which we should talk about, in which Scotland is right at the top when it comes to production, is fish. We are encouraging people who eat meat to eat more fish, as it is really healthy.

I invite comments from the witnesses on that, starting with Jill Belch.

Professor Belch: Fish is very rich in particular omega acids that are really good for the heart and the brain, so I would encourage people to eat fish. Oily fish are the best. Please eat fish rather than using supplements, because the omegas for supplements come from krill catching. As you know, some whales are dying because all the krill is being removed, and a lot of that krill is being used to make omega supplements. What we need to do is eat real oily fish and not take supplements.

Joe FitzPatrick: Preferably from the seas of Scotland.

Professor Belch: Absolutely.

Professor Scarborough: I do not have much to add other than to say that I agree completely that beans and legumes are good alternative sources of protein, if you want to call them an alternative—they are a good alternative to meat at any rate. They have a much lower climate change impact than red meat or white meat production, which makes them a good, healthy and sustainable choice.

The Convener: Before we move on to questions from Paul Sweeney, I put on the record the fact that we are having some technical problems with our contributors who are online. I hope that those will be resolved soon.

Paul Sweeney (Glasgow) (Lab): I will begin with a question about the lack of focus on mental health in the draft climate change plan. Climate change has had a massive impact on people's mental wellbeing, for example in Glasgow, where an increase in rainfall has caused significant increases in flooding incidents in people's homes. In a recent study by the British Association for Counselling and Psychotherapy, 57 per cent of UK adults said that their mental health had been impacted by the climate crisis, yet, as far as I can see, that issue is not considered in the plan. Do you agree that there needs to be a greater focus on mental health in considering the impacts of climate change?

Professor Belch: Yes, I agree completely. I have a keen interest in air pollution. When air pollution was reduced in London, there was an 18 per cent increase in productivity and a massive fall in sickness. We know that when adolescents are exposed to a lot of air pollution, they lose the ability to pay attention, their behaviour degenerates and they end up with depression. Those changes are permanent, because the damage to the brain is permanent.

You are absolutely right. With flooding in particular, there is not just the grief of losing your possessions; there is also the fact that it can happen again and again. As you know, we need to mitigate and to prepare, but, unfortunately, flooding tends to be repetitive.

09:45

That is not the only climate change-related issue. Extreme heat also causes significant depression and unhappiness. With climate change, we tend to measure the number of days over 25°C but, in Scotland, our average is 18.2°C, and hospital admissions increase by 10 per cent when we get to 22.6°C. People are living in houses that are cold in winter and very hot in summer. We need to pay attention to mental health, because climate change is causing a lot of problems in that regard. Heat, cold, damp houses and air pollution all affect mental health.

Professor Scarborough: I do not have anything to add, other than to say that climate change anxiety in the young in particular is a big thing and is on the rise. I agree that a focus on mental health is needed in a good and comprehensive climate change plan.

Paul Sweeney: I will move on to the financial costs and benefits of the plan. We know that there are significant financial pressures on local government. Is the current funding model for mental health services in Scotland robust enough to meet the demands of the climate crisis?

Professor Scarborough: I am sorry, but that is not my area. I really do not know enough about it to give a comprehensive answer.

Professor Belch: I can comment. Unfortunately, the model is not adequate. For example, in my area of Dundee, people, and young adults in particular, can wait a number of years to be seen.

It is a difficult issue. I agree that mental health is important, but there is a difference between anxiety and genuine mental health problems, and we have not learned how to separate those properly in delivering our mental health care. The situation is going to get worse as climate change problems arise, so we need to fund those services. On the other hand, councils are pretty strapped for cash, and it is difficult to see the issue up front. For example, air pollution costs the national health service in Scotland about £100,000 to £200,000 per year—that is from Public Health Scotland data. However, if you add in unemployment because people are sick, the benefits bill and things like that, the figure goes up to £1 billion to £2 billion per annum. That is the cost to Scotland.

If we can get rid of some of the other ill health, perhaps more funding will be available for mental health issues. Of course, if someone is out working and is happy and not sick, they will not have the same mental health issues.

Paul Sweeney: The point about a systems approach is interesting. Will you comment on the Scottish Government's assessment of the financial co-benefits of the actions that are described in the draft plan? How can those be used and understood alongside modelling done by the ECCI?

Professor Scarborough: Some of our co-contributors online are from the ECCI, so they are probably best placed to comment on that. I am not sure whether they are available at the moment.

Paul Sweeney: We will bring them in if they get connected.

How can local authorities, integration joint boards, health and social care partnerships, health boards and so on better signal the impacts in their budget planning? Does better support in relation to national policy need to be identified in the CCP? How do you tie that together in a coherent way? It is one thing to have a plan but, if it does not have a linkage to operational plans, it might not have any real impact.

Professor Belch: One of the issues is acceptability among communities. Everybody has their priorities for council funding, and I think that we need to educate people in that respect. A lot of people are aware of climate change, but I do not think that they are aware of its significance. We need a publicity campaign that is run by the Government—so that it is credible—with billboards explaining why we have to have low-emission zones and why we have to cut emissions and reduce car use.

The pressure to drive cars is absolutely huge. Of course, if you do not have a car and you are disabled or elderly, things are very difficult, but we have to educate people about these things. For example, if we were to introduce active travel all over, we would, according to Public Health Scotland data, save probably about £75 million per year. Indeed, if we were to educate people, councils would find it easier to bring in these kinds of changes, because they would be understood.

That is what is missing, but I do not know how we would do it. We could, perhaps, take out ads in newspapers or on billboards, and then people would understand why councils were making these climate change decisions.

Paul Sweeney: You have talked about taking a public health approach, but do you think that, say, a continuing professional development programme and additional guidance are needed in the public sector, too? When financial controllers in certain departments plan budget allocations, how can they model the benefits correctly if those are not envisaged or understood? What happens when they plan, say, a railway line or council services such as proactive street cleaning or dealing with blocked-up drains so that they do not flood people's houses?

Professor Belch: There should be health experts in planning departments, but, unfortunately, that is often not the case. As a result, instead of having an obligatory 15-minute village, we are getting urban sprawl, because developers like being able to extend sewerage, the electricity et cetera. We need to educate our planners; indeed, my view is that a health perspective should be integrated into every decision, planning included, to ensure that someone at government level is assessing the health impacts of the decisions made by planning officers.

Professor Scarborough: Good infrastructure is the bedrock of good public health, and by that I mean not just physical infrastructure. I am talking about training and getting the right people with the right skills and the right expertise involved in decision-making processes. Therefore, I agree with Jill Belch entirely.

Paul Sweeney: That was really helpful. It would be interesting to explore the links with, say, the national planning framework, appraisals under the Scottish transport appraisal guidance and so on. Thank you for that.

The Convener: I call Sandesh Gulhane.

Sandesh Gulhane (Glasgow) (Con): I declare an interest as a practising NHS general practitioner.

Good morning. As we do not have the other witnesses with us, unfortunately, I will try to limit the questions that I wanted to ask, which went a bit wider.

I want to ask about polluters. The NHS is one of the biggest polluters in the UK, and two of the biggest ways in which it pollutes are, first, through travel and logistics—people driving vehicles and so on—and, secondly, through prescriptions, especially of aerosols. Are those things not a really easy target that we should be looking at first of all?

Professor Belch: The NHS in Scotland actually won the European prize for reduction in aerosol use. At the moment, we are trying to ensure that pharmacies take the aerosols back and renew them instead of having repeated prescriptions of the same type. Although not perfect, Scotland is actually well ahead of other countries when it comes to asthma inhalers.

The NHS is also changing the anaesthetic gases that are used. However, using those that have a lower greenhouse gas impact can lead to problems, because the anaesthetic is slightly lighter. So, there is a learning curve in that respect, and that sort of thing is coming in a wee bit more slowly.

You are also absolutely right about NHS transport. We need to electrify it and, indeed, the climate change plan says that that should happen.

Another problem is, of course, plastic. We use a lot of it, so we are trying to change the type of plastic that is used. Some plastics are recyclable, but others are not, and we are trying to change over to the recyclable kind.

The big issue in the NHS is the need to be clean, and, as a result, we use a huge amount of water. It is good that there has been some money from

central Government at Westminster for putting solar panels on hospitals; obviously, it is not as much as has been given in England, and I feel that the plan could say that we need more of that. After all, we are all going to use more power, so it needs to be locally generated, and we need to make more use of all these flat-roofed hospital buildings that we have.

Sandesh Gulhane: That relates to another question that I was going to ask. It is very expensive for individuals to do all the things that are being asked of them. If you insulate your house, you will see a benefit over time, but the initial cost of doing that is way too much for a lot of people to afford. Should we be putting money into solar panels, ground-source heat pumps and other renewable energy options for Government and other publicly owned facilities and buildings, so that we can bring down the costs of those options and get good use out of them?

Professor Belch: Absolutely. You can see on Google Maps that very few of the flat roofs belonging to councils across Scotland have solar panels on them.

There is also the issue of community heating. It is much cheaper to provide such things on a community basis. Edinburgh is getting a data centre, but it has not been stipulated that the heat that is produced should go towards community heating for people round about that centre. That approach is being taken in some places on the continent.

As you said, there are things that we can do so that we do not waste heat and the sun coming down. Sadly, those things are not yet in the climate change plan, but I hope that they will be.

Sandesh Gulhane: I have tried to get on to the website that was built and designed to show co-benefits, but it is not working, which is a bit of a problem when it comes to trying to provide scrutiny.

In relation to active travel, which you have spoken about quite a lot, a lot of cycle lane infrastructure has been and is being built in Glasgow, which is causing huge problems with traffic build-up and people being able to access areas. I have stood and looked at how many people use that infrastructure. If we discount Uber Eats workers and other delivery drivers, very few people use it—in the winter, almost no one does. Such infrastructure must be maintained, because potholes, rubbish and so on prevent people from using active travel. Given that we do not live in Spain, where it is nice and warm and people are able to do things, how are we going to increase active travel?

Professor Belch: If protected cycle lanes are provided, their use gradually increases. Unfortunately, their use does not increase immediately, and we have a weather issue. However, along with our wetter winters, we are going to have drier and warmer summers.

Having done lectures, I know that parents are really hesitant to let their children go out on bikes. If you do not learn to cycle as a child, it is unlikely that you will learn as an adult. Therefore, we should encourage cycle lanes. After the ultra-low-emission zone was introduced in London, traffic levels fell, so four times more children cycled or walked to school. It is a case of creating cycle lanes, and then they will be used. However, if you do not teach a child to cycle, they are unlikely to start cycling.

Sandesh Gulhane: But the cycle lanes in Glasgow, which have been there for a while, are not being used.

Professor Belch: Have they been paired with cycling lessons for children or with a cycling to school scheme? Instead of children going to school by bus, there is a cycling scheme that goes past houses and picks up children, so you end up with a long snake of children cycling to school. If that is done in the summer and children get used to it, they will love to cycle.

The big problem is when the cycle lanes are unprotected because that narrows the road. It does not matter if there is a white line—the level of injuries and deaths of cyclists is exactly the same as it is on a main road without a white line. The cycle lanes have to be protected cycle lanes.

Another problem is that, although there can be compulsory purchase in order to build a road, there cannot be compulsory purchase for a cycle lane. For example, in three areas across Scotland that I know of, the protected cycle lane has, on each occasion, been blocked by one farmer's field, and the council will not go for compulsory purchase. Using just 5m of a field means not having to narrow the road. Okay—that is in the countryside, but at least it prevents that road from being narrowed. We really should enable the use of compulsory purchase to allow a protected cycle route, so that there is no need to narrow the road further.

10:00

Sandesh Gulhane: My final question is about food, on which we have had multiple evidence sessions. The recommendations are not the biggest issue. Although a lot of people know about the recommendation to eat five portions of fruit and veg a day—even though that is not enough—people are not hitting that. Instead, it seems to come down to having the confidence to cook and the knowledge of how to go about things. Rather

than simply saying, “We should do this,” or “We should do that,” would it not be an important step to actually get people the skills that they need before we move to those recommendations?

Professor Scarborough: The best way to look at the recommendations and targets is to say, “This is what the Government is portraying and this is what we are aiming for, so we will build public health infrastructure policies, intervention and support in order to help people achieve those diets.” The recommendations and targets are not an intervention in themselves. As you well know, you cannot just give someone a copy of the “Eatwell Guide” and say that that is it and they will achieve a healthy diet. We need to provide lots of support.

I agree with you that it would be helpful to provide support and get people more confident in their cooking ability, so that they understand more about preparing foods from raw ingredients and from scratch. To get towards that, we need some pretty serious societal changes. As we have moved along, people have lost those skills because of infrastructure problems, such as the way that people’s houses are set up, the way that people’s time is set up, so that they do not have time to cook or prepare meals, and the way that we prioritise food in schools and in work environments.

In countries that have a strong food culture, such as France, Japan or Italy, people devote time during the day for food. At work and school, there will be devoted time when people get together to eat. Too often in the UK, food is seen as an afterthought—as something that needs to be rushed and got out of the way. If we have that sort of culture, we will lean towards convenience foods and more processed foods, and there is a cycle going on where these foods are available and people are losing the skills that are all bound together.

My only concern is that when we focus on saying that we need to improve people’s skills and education around food, too often that leads to a policy that is not adequate for the size of the task that is needed to change the culture. If we say, “Let’s have another half-hour cooking lesson in schools,” that will not scratch the surface. We are talking about making major changes in order to get people more confident with food and instil the food culture that we need within the UK.

Also, what we can do alongside that—because I do not think that these two things are mutually exclusive—is to change the food environment where people are making their food choices, so that healthier choices are the easier choices to make. We have seen that with a lot of different policies that have been rolled out around the UK, such as policies on price-based and position-based promotions on unhealthy foods. We have recently seen the banning of advertising unhealthy foods up until 9 pm and of paid-for online advertising of unhealthy foods. That is all done through a nutrient profile model that defines which foods are unhealthy, so that we can put things in place. Those kinds of polices, such as the soft drinks industry levy, can be rolled out and extended, in order to make those push factors that help people to choose a healthier diet. However, we know that no policy will work on its own—it is about doing a lot of things in harmony in order to change that dial, because quite a big change needs to be made.

There is a danger in making the comparison with smoking because people will think that we are saying that those things have a similar level of health impact. No—smoking is much worse for your health than poor diet is. We know that from the statistics. However, that does not mean that we cannot learn from the case of smoking about what works. In the 1970s, about 50 per cent of people in the UK smoked; we have got that down to about 15 per cent or something like that. That happened because there was a series of interventions: tax increases, advertising bans, marketing restrictions and changes in the ways in which cigarettes could be sourced and how they were displayed in shops. All those things, one after another, helped to change societal practices in relation to smoking and to change behaviour in that direction. That is what we need for diet.

I agree with you that we need to change the food culture, but we can do so much more than that. We can do lots of things, and the only way that we can change the food culture is to do lots of things simultaneously.

Joe FitzPatrick: Professor Belch talked about LEZs. It is important that we do not miss the opportunity to hear evidence about the health benefits of LEZs. In Dundee, where Professor Belch and I both live, there is a relatively tight LEZ, but people still say that we should get rid of it because it is not going to have a benefit. It would be good to hear some of the evidence from Scotland and from further afield about why we should not only have LEZs but expand them.

Professor Belch: The UK is late to the table on LEZs. I will give you some examples: in Tokyo, there was a dramatic fall in deaths of children aged under two years; in the US, there was a decrease in the prescription medication needs of children up to the age of five years and a decrease in baby deaths. Interestingly, in Paris, they found that there was a decrease in pollution levels in a 2.5km penumbra around the LEZ, because people had been driving into it—so the benefits were more widespread than only in the narrow LEZ. In

London, as I mentioned, there was an increase in productivity and a decrease in sickness sign-offs, and children cycled more. In Bradford, there was a decrease in the number of GP visits as a result of the LEZ.

I have looked at Dundee and—provisionally—it looks good. The levels of pollution have come down within the area; based on looking at your local monitors, the levels have also come down 1.5 miles around Dundee. After nine months, we are very provisionally seeing a very small drop in hospital admissions from people who live within the LEZ. We were surprised at that because so many of those people are migrating students who come and go.

We have a project to look at all four LEZs in Scotland. We are not only looking at hospital admissions but doing a cost benefit analysis of the money that we would save from those hospital admissions. The first analysis will be undertaken in June: it will be after a year for three of the zones and after two years for the other. It is complex, because we have to take into account Covid, when people were not driving, but the statistics are there and I hope that, in June, we will have some evidence that shows—or contradicts the idea—that our LEZs are working.

Emma Harper: I have a quick question regarding preparing food from scratch and ingredients. Are ultra-high-processed foods worse for the climate in their manufacturing and preparation? I am thinking about the packaging, the air miles and the palm oil, soy and other stuff that goes into ultra-high-processed foods—does that make them worse for the climate?

Professor Scarborough: We are doing some work on that at the moment, so it is a great question. I have to be careful with my response, because I am not sure how useful the term "ultra-processed foods" is as a category. So many different foods get captured by that branding and people around the table might be thinking of very different foods when they are considering ultra-processed foods. Things such as Coca-Cola or M&Ms and other confectionery are discretionary products. When we consider such products to be the ultra-processed foods, we think, "Well, we want people to be discouraged from consuming those anyway. Any environmental impact that they have is extra and is a waste of resources and can fall within the food waste idea."

However, the broader categorisation of ultra-processing picks up loads of foods that are common in the food supply, such as some of the industrially made wholemeal and white breads on supermarket shelves, which can be substitutes for foods that have very high carbon footprints.

My concern over the idea that ultra-processed foods have a negative environmental impact is that all plant-based meat and dairy alternatives—soya milks, oat milks, veggie sausages and veggie burgers—are in that ultra-processed food category and have much lower carbon footprints than their meat and dairy-based alternatives. The reason for that is that, in the food system, emissions from the processing and packaging stages are very small compared with those from the farming and agricultural stages—most of the emissions from the food system happen before the food has left the farm gate. They are related to land use, land use change and agricultural practices, so it is more about the ingredients that are in the food than what is done with the food.

We have to be careful with saying that, as there are lots of counter-examples where that is not the case and where there is more impact at different stages. However, in general, that is the case. I would say that the relationship between ultra-processing and environmental impact is nowhere near as strong as has been suggested in the media and in journal articles. It is not an area where strong health and environmental co-benefits can be seen.

Emma Harper: I am thinking about—

The Convener: We will need to move on, Ms Harper, as there is a request for a brief supplementary.

Brian Whittle: Hopefully, I will ask the brief supplementary that Emma Harper wished to. We have been speaking about the link between ultra-processed food and environmental issues. How is the increasing predominance of ultra-processed food linked with increasing ill health?

Professor Scarborough: There is lots of evidence out there on that—umbrella reviews, systematic reviews, experimental studies and observational studies. They all show that higher consumption from the umbrella category of ultra-processed foods is linked with negative health outcomes. That is quite clear. The evidence is less clear on whether that is the case for all foods within that category, or whether, as it is a broad category that contains a lot of foods that have known negative health outcomes, it is just those foods that are driving the negative health outcomes.

There are certainly open questions about which of the foods and processes in the ultra-processed food category are driving negative health outcomes, whether it is about the processes or the ingredients that are involved, and what in relation to ultra-processed foods is causing those negative health outcomes. A lot of on-going research is trying to unpick that. However, without a doubt, the evidence is clear that increased consumption of

ultra-processed foods is linked to negative health outcomes.

Gillian Mackay (Central Scotland) (Green): To what extent could the climate change plan and Government policy be bolder in applying the polluter-pays principle?

Professor Belch: Very much. I made a comment to that effect in relation to the climate change plan when it was out for consultation. We do not have teeth when it comes to making polluters pay. The recent Scottish Environment Protection Agency changes, whereby it names and shames people on its website, are not adequate. People should be paying for their pollution. A lot of the pollution that we see is quite serious. They try to clean it up, but a lot of damage is done, and we have no mechanism to make the polluter pay for it, so you make a good point and raise a strong issue that needs to be addressed.

Gillian Mackay: In its submission to the committee, the Royal College of Physicians of Edinburgh recommended making

"the healthy, low-carbon choice the easiest and most affordable".

To what extent is that enabled by the climate change plan, and how could the plan be improved in that regard?

10:15

Professor Belch: The issue is that the climate change plan tends to deal more with how the Government will manage climate change. That is why the public campaign that I have talked about could be very useful. For example, people do not realise that many of the electric vehicles now do 400 miles. Actually, hardly anybody drives more than 400 miles in one go, yet people say, "I can't do it—I've got range anxiety." Education could help with that. For example, people could be allowed to drive an electric vehicle for a week to see what it is like. I live in Perth and I go to Ninewells every day, and I charge my car only once a week.

A lot of it is about education. I have given the example of electric cars, but we can also consider things such as exercise and healthy eating. It is all about public engagement. There is a good study that shows that, when a couple of thousand people were asked whether it was okay for people to inhale others' cigarette smoke, only 20 per cent of people said that it was. They were clearly the smokers. However, when the people were asked whether it was okay for people to breathe in others' car fumes, the result was the reverse: only 20 per cent said that it was wrong. Everybody else thought that it was okay. We know that it is absolutely not okay, yet people do not know that.

I know that climate change is now in the curriculum for excellence, but we need more education on it—not so much about whether it is going to be hotter or wetter but about what people can do to help and change their carbon footprint.

Gillian Mackay: Is there anything on the food side that could be improved?

Professor Scarborough: I go back to what I said at the start of the meeting. In the draft climate change plan, there does not seem to be any motivation—there are certainly no policies—to try to change people's diets. There are goals on agriculture and producing food with lower emissions, but there are none on changing diets. The Climate Change Committee's report on carbon budgets is clear that there needs to be a reduction in meat in order to meet the pathways, and the Food Standards Scotland report is aligned with that, as it contains a recommendation on lowering the level of red and processed meat. However, those are not policies but targets.

I totally agree that we need to make the healthy and sustainable choice the easy choice. That is definitely the case. That is good public health policy, but I do not see any policy actions in that regard to critique. There is none in the draft plan that I can see.

Gillian Mackay: Professor Belch has already touched on my second question. Phrases such as "just transition" and "net zero" and many of the plans do not mean an awful lot to the public, yet a lot of the things that we need people to do in relation to climate change involve individuals taking action, be it on their diets or on a wider basis. How do we make the communication better and more accessible and make the choices easier for people so that everybody can feel the improvements to their health and their local environment?

Professor Belch: That is such a good point. I have never seen as much misinformation about net zero as I have seen over the past year and a half on social media and in some of our tabloid press. I have no idea where it is coming from, but it is extremely dangerous. We perhaps need to have billboard posters with a photo of a child coughing and text saying, "This child may not make it to the age of 15 because of asthma." One of the best things to have happened, sadly, is poor wee Ella Adoo-Kissi-Debrah's death, because it has raised the profile of air pollution. I spoke to her mum, who is a big advocate against air pollution, and she has done fantastic things, particularly in pushing through the ULEZ in London.

One of the best approaches is for people to talk about their children. Everybody loves their children, and there is so much in climate change that is going to be harmful for our children. If we

phrase it around that, I think that it will make a difference. However, I do not know how we stop the torrent of misinformation on social media. It is appalling, and the Office of Gas and Electricity Markets has no teeth. I have written to it many times.

Professor Scarborough: I agree that there is a need for more education and support for the public on the changes that will need to be made in order to meet climate change plans and our net zero targets. We need bottom-up support that provides space for the bold policy action that will be required to deliver the net zero goals. I do not dismiss the need for education, but I worry that, if it is the focus, it will put the problem on the individual: we will say that it is up to them to make a change, when changing the infrastructure would make the difference. That is what we need to be doing.

A good example of that is the suggestion that we recommend that people clean up their email inboxes and delete their old inboxes to put less pressure on data centres, which have an environmental impact. However, if you want to relieve the pressure on data centres, you should approach companies such as Apple that are involved in artificial intelligence and are introducing data centres and say, "Listen, when someone takes a photo, change it so that it does not take a short video; it should rather just capture an individual image." That would massively reduce the amount of file storage that is needed. Those are much more effective ways of making real change than asking individuals to do it for you, which I would caution against.

Gillian Mackay: Absolutely. If we are looking to empower people to make those choices, we should think about the number of things that are out there about food alone, such as the "Eatwell Guide" and everything else—the landscape is quite complex. I think that it is also important to be able to distil the information down to empower people.

Professor Scarborough: My response is similar to the one that I gave to Sandesh Gulhane, which is that, if we are going to achieve a healthy, sustainable diet, it will require culture change. Loads of different things would need to be done simultaneously to move us from where we are to a healthier and more sustainable diet. Education, training and the support that is given to individuals will be part of the mix, but population and policy level changes also have to be part of it.

Carol Mochan (South Scotland) (Lab): I want to touch on rurality in Scotland, which you have both mentioned, but I will see whether there is anything else to explore. The Scottish Government's impact assessment showed that rural Scotland accounts for about 17 per cent of the population, with 6 per cent in a very remote situation. Those areas have a different demographic; there is talk of a changing pattern, with people retiring to rural areas, so access to services is very different. Are you satisfied that the plan gives enough consideration to that? Is there anything else that we should be doing to address health inequality in more rural and island areas?

Professor Scarborough: I do not feel that I have anything particular to say on that, so I will pass to Jill Belch.

Professor Belch: Public transport is one of the big issues for rural communities. In my area of Perth and Kinross, four or five villages have only one bus that takes children to school at 8.30 in the morning and then drops them back at 4.30. Residents have to use cars or taxis to get to the nearest town. It was great to see the electric buses initiative, but when you are far away, the buses cannot make it out to you. We need a stronger policy to improve our public transport. We also need to reverse the Beeching cuts if we can, because many of our rural areas used to have train transport but now do not. Even the lines that we have are troublesome. For example, a journey from Perth to Edinburgh takes almost twice as long by train as it would by car because of the single track at Ladybank.

Better train transport would allow freight to come off the roads, which will make roads safer for our rural communities, where the roads are narrow. I was disappointed that we did not reduce the speed limit to 50mph, knowing the small roads that are in our rural communities, where it is very dangerous for walkers and cyclists, as well as cars. Public transport will be key.

When we introduce policies, we must always keep rural communities in mind. For example, that is why, with wood stoves, I would rather nobody used them, but it would be appropriate to make an exemption for our rural communities, who are often isolated and in windy areas. My message is that we have to be very aware of such issues, but in particular we need to improve our public transport to remote areas.

Carol Mochan: That is helpful—thank you.

The Convener: There is no dedicated section on governance in the draft plan. How should the Scottish Government ensure that co-benefits are embedded in policy design and budget decisions? What mechanisms should be put in place to ensure that there is accountability for delivery and that there are measurable co-benefits over time?

Professor Belch: The one thing that is missing completely from the document—I assume that this is because it is an overarching document—is quantifiable measures. You cannot have

governance unless you have a measure. For example, I know that the Scottish Government air quality advisory group is discussing lowering the permitted levels, but we do not see that in the climate change plan. I assume, maybe wrongly, that the plan gives the broad picture and that, for each individual item, there will be measurable deliverables that can be quantified and which will allow easy governance.

However, with the way the document stands, it would be very difficult to have any governance metrics in areas such as electricity, industry, waste, pollution and carbon capture, because there are no metrics in the plan. As I say, I might be naive, but I assume that the plan is overarching and sets out what the Government would like to do, and that the policies and the governance will come later. That is my impression, but I am not sure whether it is right.

Professor Scarborough: I totally concur on measurement. That was the first thing that I was going to say.

There is also a point about oversight. I presume that this will be the case, but we need to ensure that people with public health expertise from health backgrounds and from health departments and directorates are in the room when policy decisions are being made. Broadly speaking, the climate change plans are cross-departmental, so I am sure that that will be the case.

There should also be independent research. If you want to investigate and find out what policies are working and get case studies of measures that are delivering benefit and that we can learn from, you need to fund academic studies to measure independently and provide results to the Scottish Parliament.

The Convener: That is helpful. This committee and probably other committees will raise the issue of governance with the Government when we feed back on the draft plan.

Professor Belch, you talked about the importance of embedding health professionals in planning. Should local health and care bodies have a role in further developing the approach to monitoring and evaluation of the draft climate change plan?

Professor Belch: Climate change is the biggest health issue for humanity. Although it is not forecast to be so drastic here, we have changes. As you probably know, even last summer, across Scotland, 70 people who were admitted to hospital for heatstroke died. That is not counting the people who were admitted and did not die. So we have a problem.

To me, climate change is a health problem, which is why I am so interested in it, and why I think that health should be embedded. There is a disconnect between central Government and local government. If that could be attenuated by embedding health observers in most departments, that would make a real difference.

Professor Scarborough: The only thing that I would add is that, in relation to many of the challenges around climate change and the policies that we need to make a difference, we have done an awful lot of learning in public health. This is about population level changes and it affects infrastructure and individuals. It is about bringing people along in a direction of travel and tackling things such as individual autonomy. There are difficult decisions to be made, and there is a lot of learning on all of that from public health research.

There is an interesting background. As Jill Belch mentioned, climate change might not be affecting Scotland as badly as it affects other places, but we all have joint responsibilities. There is then the point that public health is driven effectively at the individual level, where people do things to benefit themselves and perhaps their family, and they move on from there, whereas this is more about a degree of altruism, where we are doing stuff for the community.

10:30

Therefore, although it might be the same levers that we are drawing, and there are certainly lessons to be learned from public health research and public health experience, there are subtle new questions around climate change that need to be thought through properly. Any good approach to tackling climate change will need to have the public health community embedded in it.

Professor Belch: I think that the Scottish environment watchdog, SEPA, advised that the LEZs should be evaluated for benefit or otherwise, but when we approached the Scottish Government, there were no funds for that, so I had to spend a year getting funds to do it.

I think that there is a role for key public health research, funded by the Government, which you could easily earmark so that it is not always in competition with research on diabetes, research on hair loss, or whatever, out in the broader field.

I agree that we need to consider where our questions are, what we need answered and whether we provide at least some seedcorn funding for it. That is a plea from an academic.

The Convener: Thank you for declaring your interest.

I thank both of you for your attendance today. Unfortunately, due to technical difficulties, both Professor Doherty and Dr Sudmant were unable to

participate in the committee's inquiry this morning, but I am assured that they have been watching the questions and that they will write to the committee with evidence on their areas of expertise where they feel that they can add value to our inquiry.

At our next meeting, we will continue to take evidence on the draft climate change plan, hearing from a second panel of witnesses on implications of the plan for the NHS in Scotland.

That concludes the public part of our meeting.

10:32

Meeting continued in private until 11:31.

Official Report
Room T2.20
Scottish Parliament
Edinburgh
EH99 1SP

Email: official.report@parliament.scot
Telephone: 0131 348 5447

Published in Edinburgh by the Scottish Parliamentary Corporate Body, the Scottish Parliament, Edinburgh, EH99 1SP

All documents are available on
the Scottish Parliament website at:

www.parliament.scot

Information on non-endorsed print suppliers
is available here:

www.parliament.scot/documents

For information on the Scottish Parliament contact
Public Information on:

Telephone: 0131 348 5000
Textphone: 0800 092 7100
Email: sp.info@parliament.scot

The Scottish Parliament
Pàrlamaid na h-Alba