OFFICIAL REPORT
AITHISG OIFIGEIL

Health and Sport Committee

Tuesday 19 December 2017

Session 5

The Scottish Parliament
Pàrlamaid na h-Alba

Tuesday 19 December 2017

CONTENTS

	Col.
SUBORDINATE LEGISLATION	1
Novel Foods (Scotland) Regulations 2017 (SSI 2017/415)	1
Sale of Nicotine Vapour Products (Vending Machines) (Scotland) Regulations 2017 (SSI 2017/422)	1
PREVENTATIVE AGENDA (TYPE 2 DIABETES)	2

HEALTH AND SPORT COMMITTEE
31st Meeting 2017, Session 5

CONVENER

*Neil Findlay (Lothian) (Lab)

DEPUTY CONVENER

*Ash Denham (Edinburgh Eastern) (SNP)

COMMITTEE MEMBERS

*Miles Briggs (Lothian) (Con)
Alex Cole-Hamilton (Edinburgh Western) (LD)
*Jenny Gilruth (Mid Fife and Glenrothes) (SNP)
*Emma Harper (South Scotland) (SNP)
*Alison Johnstone (Lothian) (Green)
*Ivan McKee (Glasgow Provan) (SNP)
Colin Smyth (South Scotland) (Lab)
*Sandra White (Glasgow Kelvin) (SNP)
*Brian Whittle (South Scotland) (Con)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Alison Cockburn (NHS Lothian)
Alison Diamond (NHS Lothian)
Dr Lynne Douglas (Obesity Action Scotland)
Andrew Job (Diabetes Scotland)
Brian Kennon (NHS Greater Glasgow and Clyde)
Linda McGlynn (Diabetes Scotland)
Heather Peace (Food Standards Scotland)
Pete Ritchie (Nourish Scotland)
Professor Falko Sniehotta (Newcastle University)

CLERK TO THE COMMITTEE

David Cullum

LOCATION

The James Clerk Maxwell Room (CR4)

Scottish Parliament

Health and Sport Committee

Tuesday 19 December 2017

[The Convener opened the meeting at 10:00]

Subordinate Legislation

Novel Foods (Scotland) Regulations 2017 (SSI 2017/415)

The Convener (Neil Findlay): Good morning and welcome to the 31st and last meeting of the Health and Sport Committee in 2017. I ask everyone in the room to ensure that their mobile phones are switched to silent. You can use them for social media, but please do not film or record proceedings. We have apologies from Alex Cole-Hamilton and Colin Smyth.

The first item on our agenda is subordinate legislation and we have two negative instruments to consider. There has been no motion to annul the first instrument and the Delegated Powers and Law Reform Committee has not made any comments on it. Does the committee agree to make no recommendations on the instrument?

Members *indicated agreement.*

Sale of Nicotine Vapour Products (Vending Machines) (Scotland) Regulations 2017 (SSI 2017/422)

The Convener: There has been no motion to annul the second instrument and the Delegated Powers and Law Reform Committee has not made any comments on it. Does the committee agree to make no recommendations on the instrument?

Members *indicated agreement.*

Preventative Agenda (Type 2 Diabetes)

10:02

The Convener: Agenda item 2 is our inquiry on the preventative agenda. This is the first of a series of one-off sessions and will look at type 2 diabetes. I welcome to the committee Brian Kennon, chair of the Scottish diabetes group and the national managed clinical network; Andrew Job, secretary of Diabetes Scotland's Edinburgh and Lothian local support group; Linda McGlynn, regional engagement manager at Diabetes Scotland; and Alison Cockburn, who leads in diabetes cardiovascular risk for NHS Lothian and is a pharmacist. Thank you all for attending. We will move directly to questions.

Sandra White (Glasgow Kelvin) (SNP): Good morning, panel, and thank you for coming. It is obvious from the committee papers and from information more generally that there are a number of causes of diabetes, including being overweight or obese, having a relative with type 2 diabetes, and having high blood pressure or high cholesterol. I am interested in the environmental aspects and a growing body of evidence about a link to a rapid rise in exposure to a number of chemicals in the air, soil or water. Are panel members aware of that as a risk factor or of any trials that are going on into the impact of that on the prevention of obesity and all types of diabetes?

Brian Kennon (NHS Greater Glasgow and Clyde): I would not profess to any degree of expertise on the association with environmental factors. Most of the trial evidence, particularly around interventions, has been about lifestyle issues such as weight and physical activity. There have been some weak associations between environmental factors and type 2 diabetes, but causation has not necessarily been proven. To the best of my knowledge, there have been no randomised trials in which those variables have been controlled for.

When we are thinking about the prevention of type 2 diabetes, the key areas that we focus on are diet and physical activity, because that is where the evidence base lies. I dare say that environmental factors are an evolving field and that, in years to come, there will be a stronger case for considering issues such as vitamin D exposure, which is associated with many different conditions and not just diabetes. To date, though, there is no firm evidence that gives scope for intervention.

Linda McGlynn (Diabetes Scotland): I concur. As Brian Kennon said, there has been very little

evidence from randomised trials. There might be a link if there is an autoimmune response to carcinogens or environmental chemicals, but we do not know what that autoimmune response might be. It is an emerging field—we just have to keep an eye on it and look at the results of research.

Sandra White: The evidence that we have been given is that there is a link not just to exposure to air pollution but to ingestion of chemicals, for example those used in farming, and through the placenta. Are you saying that not enough trials have been done and that there is not enough evidence to support such a link?

Brian Kennon: Again, I would not claim a significant degree of expertise in that area. However, you are right to highlight an in-utero link to many conditions. It is difficult to ascertain whether there has been potential maternal exposure to environmental agents that could cause harm. We know that certain drugs are associated with an increased risk of developing diabetes, for example steroids and some HIV therapies, but there is more of a direct mechanism in how they work. A side effect of those drugs is an increase in the risk of developing diabetes, whereas what you are describing is environmental exposure to carcinogens. To the best of my knowledge, there is no firm evidence that one particular environmental factor causes diabetes and is not just associated with it. It is an area that needs further work.

Ivan McKee (Glasgow Provan) (SNP): I am interested in understanding the causes and risk factors, and where most cases come from. It looks like obesity and weight control is the single biggest issue. A lot of numbers are thrown about saying how much money we would save downstream in the health service if we could control that factor. What is your understanding of the biggest risk factors? Would we save money if we managed to control obesity?

Andrew Job (Diabetes Scotland): I am speaking as a layperson in this respect, but I think that the link between weight, obesity and type 2 diabetes is well proven. I was severely obese and going down a slippery slope towards type 2 diabetes and the associated complications. I turned it around by losing a lot of weight and I am now off medication, so effectively I have put myself into remission. It sounds terribly simple to say it but, based on that experience, I would say that it is about lifestyle: what you eat, how much you eat—quantity as well as quality—and how much activity you do. It is a very simple equation. You really should be spending the calories that you take in. If you are not spending them, you are going to put weight on, which puts pressure on various mechanisms inside your body. One of the consequences can be type 2 diabetes, and all the complications and increased risk factors that follow from that. It sounds trite, but it is quite simple and very complex. Weight and risk of type 2 diabetes are associated. How you tackle the issues around people gaining weight, not taking enough exercise and so on is complex.

Ivan McKee: So it is a simple relationship, but more difficult to influence.

Andrew Job: Yes.

Brian Kennon: Just to pick up on that point from Andrew Job, type 2 diabetes is multifactorial. You have a genetic predisposition, for example. Age is one of the biggest risk factors—the older you get, the higher your chance of developing type 2 diabetes. Ethnicity is also a factor. A lower body mass index in individuals from south-east Asian communities means that they are at higher risk of developing type 2 diabetes.

In terms of the preventative agenda, the committee should be looking at modifiable risk factors. Andrew Job is an excellent case in point. The biggest modifiable risk factor for us as a society is undoubtedly obesity.

Linda McGlynn: We have figures that say that three out of five cases of type 2 diabetes are linked to obesity and being overweight, and can be avoided. The prevention programme in England is doing a lot of work on proving that weight loss puts diabetes into remission. It is not only about the fiscal outcomes for the national health service; it is also about the quality of life of the person living with the condition, which is probably more difficult to quantify but is just as important.

Alison Cockburn (NHS Lothian): I wanted to mention the comorbidities associated with type 2 diabetes. In my clinic, I see patients with cardiovascular disease complications and renal impairment. Although those are at the more complex end of things, they can be prevented by encouraging patients to exercise and lose weight and so on. It is important to target resource at patients who are at greatest need, and who have the most complications and the poorest quality of life. Evidence has shown that although preventative strategies involving encouraging weight loss and exercise at a population level are useful, it is more difficult to make substantial benefits with such strategies than with targeted, individualised programmes.

Ivan McKee: I fully understand that that is very important for the individuals concerned—nobody is saying that it is not, and there will be plenty of discussion about that. However, if we focus on the fiscal aspect, where do the costs manifest themselves? What are the things that are expensive about treating diabetes? Ultimately, what I would like to get at is how much difference

it would make to spend £1,000 or £1 million treating diabetes. What would you do if you had money for prevention? How much would that save?

Linda McGlynn: One of the problems is that someone who has been diagnosed with type 2 may have had the condition for several years before it is picked up. During that time, there will have been changes—they will have developed complications, such as problems with vision and, potentially, problems with kidneys and circulation. Eighty per cent of those complications are the ones that we spend the most money on. Someone who is in hospital for a non-diabetic condition is likely to be there for four or five days longer. That extension costs roughly £2,000 per person. Given that there are about 500,000 patients a year with diabetes, that is an awful lot of money. Considering what the pharmacological bill is for Scotland, if we can prevent some people from having to go on medication, there are savings there, too. There are also savings if we can avoid the more specialist services. It is across the board.

Brian Kennon: Ivan McKee asked how we can get this down to pounds and pence. We know that about 80 per cent of the expenditure on type 2 diabetes is on complications, some of which would be avoided by early detection and early intervention. A big meta-analysis, published last month in *The BMJ,* looked at the cost effectiveness of interventions. It is really difficult to distil that data, because it partly depends on the population that you are studying. If you address individuals who are at a high risk of developing diabetes, your intervention will be much more cost effective than if you go for a population-wide screening approach. The meta-analysis, based on a quality-adjusted life year approach, suggested that a lifestyle intervention programme worked out at about £7,500. In the grand scheme of things, that is cost effective. Some studies suggested that that is cost saving and others had QALYs that were much higher than that. As I said, it partly depends on the population that you are studying, but a prevention agenda and initiatives that led from it would undoubtedly be cost effective. That is true of lifestyle interventions and some relatively inexpensive pharmacological interventions, such as a drug called metformin.

10:15

Brian Whittle (South Scotland) (Con): First of all, I should let everyone know that I sit on the cross-party group on diabetes.

Perhaps I can extrapolate from Ivan McKee's point to take in prevention, because what we are talking about here is early intervention once people have contracted diabetes or once the condition has manifested itself. To what age can you trace back diabetes? How far back do we need to go? Should we have been ensuring that children were more active, adapting their relationship with food or whatever?

Andrew Job: On reflection, I would say that I was showing symptoms of diabetes for about 12 to 15 years before I was diagnosed. I used to play rugby, but I stopped; indeed, I stopped doing any meaningful exercise, because of various other factors. I think that, in my case, it was my putting weight on and the lack of activity that promoted me up the scale. I also have a family history of type 2 diabetes, which made me a bit more predisposed. I would say, then, that I was showing symptoms of diabetes 10 to 15 years before I was diagnosed, and obviously that would have built up an effect inside me.

Alison Cockburn: That is where screening comes in, because it is really important that we pick this up at the pre-diabetes stage that people go through. That is a role that community pharmacists are certainly well placed to play; they might be able to reach the more deprived areas and those who are less likely to engage with the health service routinely. As a result, we should target our resources better at the community—say, at health centres, at pharmacies et cetera—to ensure that screening is implemented and that these people can be picked up. After all, it is so much more expensive to chase these things up after the event, once people have contracted diabetes and are dealing with its complications. That is not to mention the fact that their quality of life might well be much poorer and that their lives might be shorter, too.

Brian Kennon: I should point out that the cost-effectiveness analysis that I gave related to the prevention of diabetes; in other words, it related not to the cohorts of people who already had diabetes, but those identified as being in the pre-diabetes stage.

We in the Scottish diabetes community should be very pleased with Mike Lean, who I believe is not giving evidence in the next session but who was one of the lead authors of research published a week ago that shows exactly what has been highlighted—that early diabetes can be put into remission through very intensive lifestyle interventions. I do not want to step on the toes of anyone who might talk about obesity in the next session, but there is increasing evidence that a significant lifestyle intervention early in the disease process—say, after type 2 diabetes has been diagnosed; I think that it was six years in the research—can put more and more cases into remission. There are areas where the evidence shows that you can tackle things at the pre-diabetes stage through identification of high-risk people and then at the early onset of the disease.

Linda McGlynn: There is evidence with regard to children and young people, and there are also policies such as flourishing Glasgow, which clearly recognises that children in deprived areas need access to activities and healthy foods. Such a legacy from childhood can manifest itself in adulthood, and that is why we say that this is about not just the health service, but the environment, education, giving people access to healthy foods and the skills for cooking them and so on. The sooner we can embed those skills and that knowledge in our young people, the better the chance of their living longer, healthier lives.

Brian Whittle: Having access to that kind of learning opportunity is what I am really interested in. Following on from Ivan McKee's point, I wonder whether, given that we know exactly where the deprived areas are and who has and does not have access to opportunity, we could focus on those areas and invest in people's relationship with and understanding of food and their understanding of and access to physical exercise. Have there been any studies of what that kind of pre-pre-diabetes work, if you like—of prevention right at the start—might be worth to the nation in terms of health?

Linda McGlynn: I do not know of any studies on that direct correlation, but studies have certainly been carried out on that element from the 1990s onwards. I am sure that the Glasgow Centre for Population Health will have a lot of information on the importance of the health improvement and public health aspects and of doing things on the ground. I cannot bring it to mind at the moment, but there is evidence out there.

The Convener: How much is diabetes a class-based disease?

Brian Kennon: In this discussion, it is really important to distinguish between type 1 diabetes, which is an auto-immune condition—in other words, there are no avoidable factors; it is just down to luck whether you develop it or not—and type 2 diabetes, which we know contains a significant lifestyle component. We know that there is a strong association between the development of type 2 diabetes and deprivation. Of course, these things are complex, but type 2 diabetes definitely goes hand in hand with the deprivation associated with less access to healthier food substances and physical spaces in which to do exercise.

The Convener: To what extent is that the case, though?

Brian Kennon: Not to the extent that weight itself would be a higher risk factor. It comes back to its being a matter of association rather than a definite cause.

The Convener: But, within certain demographics, is the prevalence of diabetes much higher in more deprived communities than in wealthier ones?

Brian Kennon: The more deprived you are, the higher the incidence of type 2 diabetes.

The Convener: Is it a sharp divergence?

Brian Kennon: There is a difficulty in that respect. As we know, obesity rates are higher in more deprived areas than in more affluent areas, and there is less physical activity in those areas. However, it is not a direct correlation, because so many different confounding variables can contribute to the onset of the disease. It is almost as if these things cohort and nest instead of there being something like a dose-response curve that says that the less deprived you are, the less likely you are to have type 2 diabetes. There are just too many different factors to piece that out.

Emma Harper (South Scotland) (SNP): Before I ask my question, I should say that I am the co-convener of the cross-party group on diabetes; I am a registered nurse; and I have type 1 diabetes myself. With regard to the previous question, I read somewhere down the line that Henry VIII probably died of type 2 diabetes complications, so it might not be linked to class or how much money you have.

My interest lies in the pre-screening and pharmacy aspects. I know that general practitioners doing normal laboratory tests will pick up high blood-sugar levels, and that might then lead to fasting, glucose testing and so on. However, with regard to screening, Diabetes UK did finger-stick blood testing in Dumfries last year, so that might be a way of targeting people who might be pre-diabetic or those of a certain age. Should we be looking at taking a national pre-screening approach to this?

Alison Cockburn: As I have said, community pharmacists are ideally placed not only to screen people who might have diabetes but to give advice on medication to those who they can see from their prescriptions are diabetic. They can also reinforce the need to take exercise, have a healthy lifestyle, give up smoking—indeed, all of the other linked factors. The main issue just now with community pharmacies is that they have no access to GP records. They can look up an individual patient's history on the GP Vision system, but it is very limited with regard to what they can do and the advice that they can provide.

The other potentially negative factor is time. Community pharmacists focus mainly on producing prescriptions and dispensing medication, and this is something that will pull them away from providing the service that they would like to provide. There are a number of

integrated care pharmacists who provide a sort of interface between primary and secondary care, and they will follow patients after they are discharged to their GP practices and help to make sure that their medication is right and that there is a smooth transfer. There are definitely a number of opportunities to make things slicker and better for patients.

Linda McGlynn: In Scotland, we used to have the keep well screening programme, which was targeted at high-risk people over the age of 40 and focused not just on diabetes but on heart disease. It used screening tools, but the reason that it worked quite well was that there was also support afterwards for people to make those behavioural changes. Screening is okay as a method of picking up people at high risk, but the question then is what you do with those people? How do you support them?

That is certainly the key to the diabetes remission clinical trial that has been carried out. It focused not just on diet and obesity, but on the psychological support given to people to make those changes and continue with them. That is certainly a clear element in some of the weight management programmes across Scotland; indeed, there are good examples of programmes that focus not just on the clinical bit but on psychological support. If there is to be screening, people must be supported to make the changes that are required and not be left on their own.

The Convener: Did you say that there used to be a screening programme?

Linda McGlynn: There used to be a programme called keep well.

The Convener: What happened to it?

Linda McGlynn: The programme was funded for only a few years, and after that, a lot of the health boards did not continue with it. The funding came from central Government but, after a period of time, a lot of it went centrally. Some boards kept the programme going as part of health improvement, but there are not many of those boards around now.

The Convener: Was there any evidence that it was working?

Linda McGlynn: Yes, there was. The programme targeted a very specific high-risk group—the over-45s, for example—and it certainly worked in deprived areas.

Alison Cockburn: People were employed to ensure that patients turned up for their reviews, so you would have somebody going around banging on people's doors and saying, "You have an appointment, and you'd better come." Indeed, one of the key issues is what we call the DNAs—the did not attends. In the hospital out-patient clinics for diabetes, there is about a 40 per cent DNA rate for patients with diabetes.

The Convener: Was it a retrograde step?

Alison Cockburn: Stopping the keep well programme?

The Convener: Yes.

Alison Cockburn: In its early stages, the programme definitely showed a lot of promise; it looked as though it was working, and it really focused on the more deprived populations. Unfortunately, what happened to it was all about cost cutting.

Brian Kennon: Perhaps I can update the committee on where we are with the Scottish diabetes group. In the next evidence session, you will hear from Alison Diamond, who is the chair of our short-life working group, but I can tell you that we are very much trying to tackle this prevention agenda. Part of that is about identifying the high-risk cohort that we should be screening and the screening that should be done, because there is some dubiety as to which screening tests should be used in the cohorts that have been identified.

However, as Linda McGlynn has pointed out, the more important question is what you do about it afterwards. That is why the timing of this discussion is opportune; with the on-going review of the diet and obesity strategy, we have an opportunity to identify the high-risk people and then think about what we not just as a health service but as a community and as a society can do to address that in a meaningful way and help people either to avoid developing type 2 diabetes in the first place or, if they are picked up early enough, to put them into remission. We are trying to get that joined-up thinking. Historically, weight management services have sat outwith diabetes services, and by thinking in this way, we are trying to promote a kind of co-dependency.

10:30

Emma Harper: I want to ask about the managed clinical networks, which were the subject of my original thoughts on this. I presume that, when you identify really good practice in one health board and it comes to the MCN—or however you engage with that—that practice gets disseminated across health boards so that they can look at who is doing it, how they can share it, how they can make sure everything is evidence based and how they can put it in place in the most cost-effective way. Can you tell us a wee bit about what the MCN does?

Brian Kennon: Having been established for some time now, diabetes MCNs have a good infrastructure as single-disease entities. Historically, the preventative agenda has sat

outwith diabetes—it has been covered more by public health and weight management services—but, as I have said, we are trying to bring that prevention agenda into the MCNs, too. We have regular meetings of MCN leads in which we try to disseminate and share good practice. In fact, our national conference in February will be about promoting good practice and looking at progress against the improvement plan.

I am not going to sit here and be idealistic and suggest that every board will pick up every initiative that has been shown to be effective. After all, a lot of successful initiatives have had funding to kick-start the process and get things established, and the question is where the funding can be identified, particularly in this current climate. As I have suggested, there is an opportunity for us to think differently about how we utilise our resources. We need to think not just about the extra staff and resource that we need but about how we utilise what we already have to achieve the best impact from an evidence-based perspective.

The other thing—and I think that even Obesity Action Scotland says as much in its submission—is that, although we are very good at collecting data on diabetes at the pre-diabetes stage, it is difficult to gather evidence on robust outcomes from weight management. We in diabetes are quite fortunate in having a national information technology system for capturing that information.

Linda McGlynn: The MCNs are an ideal vehicle for diabetes prevention and improvement across the board, no matter whether we are talking about secondary or primary prevention, but there is a disconnect in that primary care and integration boards are not fully integrated with them. I attend every single MCN in Scotland. They have some very committed clinical staff, but the support from primary care in some health board areas is not that great and, strategically speaking, we are not joining things up as well as we could. If we could get more joined up, we could make huge inroads into prevention. As Brian Kennon has said, we now have a really good opportunity through the prevention sub-group and the obesity consultation to work together across the diabetes communities.

Alison Johnstone (Lothian) (Green): Some of the written submissions suggest that there is a focus on treatment rather than prevention, even though there is evidence to suggest that lifestyle changes might have better, long-lasting outcomes than purely medical ones. The Diabetes Scotland support group in Edinburgh suggests that health boards

"do not prioritise support to non-clinical interventions".

Moreover, Diabetes Scotland states:

"there is a weighted bias in respect to secondary care at a Health Board level"

and that prevention has not been addressed in a strategic way. It sounds like this is something that we need to change, and I just wonder how successful your own interventions have been in changing that direction. After all, it is obviously very expensive.

Linda McGlynn: The integration of health and social care was an ideal opportunity to start doing more joined-up work together, and there are some good examples across Scotland of secondary care, integration authorities and primary care all working together on the prevention agenda. I think that the issue is that, historically, a lot of the clinical leads for diabetes across Scotland have been secondary care clinicians. Where we have a GP as a primary care lead or joint lead, we know that we are getting buy-in from primary care and from everyone at other levels of the health board. This is about everybody recognising that prevention and diabetes are issues not just for secondary care but for primary care. Indeed, prevention is everyone's issue. We need to start that dialogue; if we do not, the floodgates will open and we will not be able to cope.

Andrew Job: I just want to reinforce those remarks. The point that I was trying to make was about the disjointed situation between primary and secondary care with regard to how the patient is looked at. I am looked after by my GP, but sometimes it is like they are just ticking boxes and I am left alone. The question is: how do people get picked up, and what is the pathway that is expected to be followed? Again, there seems to be great variation in that respect. As Linda McGlynn has said, we are quite fortunate in NHS Lothian in having a joint primary care lead in our MCN. However, although that probably means better engagement with the GP community, there is still this disjointed thing. They are not looking at prevention; indeed, a lot of the time, they are looking just at managing things.

Brian Kennon: That is one of the reasons why the Scottish diabetes group is trying to push this agenda of bringing the pre-diabetes aspect into diabetes; we need to get more of a joined-up approach. Personally, I would rather that we got rid of the terms "primary care" and "secondary care", as I think that it is an artificial divide. Instead, we should be talking about community-based and acute-based services. That specialist resource, be it a specialist consultant resource, a diabetes specialist nurse or a dietician, should be able to offer support in a community setting as well as in an acute setting. That is the sort of rhetoric that we are trying to promote across diabetes services and, indeed, for all long-term conditions. It should be based not on your geographical site

but on the expertise that you can bring to the pathway. I think that that is key.

I think that we will agree that what we need is clarity on the clinical pathway that we are trying to promote and the interventions that you would expect at any given point on that pathway. There are pockets of good practice, but the issue is how we standardise all that and ensure that we are getting a universal approach.

Alison Johnstone: What role do you think you can play in tackling this?

Alison Cockburn: There have been a number of initiatives involving community pharmacists running clinics in community pharmacies to help patients manage their medications and to provide advice to those who have been admitted to hospital for whatever reason and have come out again. I think that that sort of thing is fairly piecemeal, however. Such clinics are not per head of the population or pro rata, and because there are not many of them, they are like centres of excellence.

Another point is that patients in the acute sector might be seen by pharmacists after they are discharged and what are called medicines reconciliation processes might be put into place to make sure that their medicines are correct on discharge, but they might then go back to their GP practice and see no one else for a review of their therapy until their next GP appointment. If you follow patients on their journey from primary to secondary care and then from secondary back to primary care, you will see quite a few gaps in the system. There are a number of opportunities to improve things significantly for patients and to ensure that we do not get medication errors or complications that are not picked up at an early enough stage.

Alison Johnstone: A few decades ago, we would not have been looking at the statistics that we are looking at now. This might be a global epidemic but unfortunately, we in Scotland are leading in areas that we do not want to lead in. Now that the Government is looking at its diet and obesity strategy, is there any particular route that you would like to it to go down? Should we be tackling supermarkets? Should we be reducing the deals that people in Scotland seem to be particularly susceptible to? We have incredibly high figures for being suckered by junk food deals. If there was one thing that the Government should introduce in that strategy, what would it be?

Linda McGlynn: We need to look at the whole gamut of issues with regard to unhealthy and processed foods, the levels of sugar et cetera in them, the way that they are advertised and so on. There are also issues around fuel poverty and poverty of access to physical activity and green spaces. As Brian Whittle as suggested, a whole fiscal policy that also covers environmental and food issues needs to be looked at, and the consultation on the obesity strategy has tried to do some of that work.

Brian Kennon: One thing that I will say about the strategy is that it is multilevel. Some countries are just screening and treating high-risk individuals with diabetes, while other countries such as Finland are doing the same thing at a population level, too. The strategy allows us to tackle the issue at a population level—in other words, through primary prevention of obesity—but there is also the secondary prevention level at which we try to stop those who have developed obesity developing type 2 diabetes. I think that we need that multilevel approach and an approach that is based on population as well as individuals approach.

The Convener: The committee hears a lot of people saying, "We have a good strategy, we have a good report, and we all need to work together." That is all great and terrific, but we are supposed to be looking at the preventative agenda and I have not heard about any systematic practical steps that are being taken today to prevent people from getting type 2 diabetes. Can you point to anything that is happening systematically across the country and say, "This preventative work is stopping someone getting the disease"?

Brian Kennon: NHS Scotland has 14 boards with different practices. Some practice with regard to weight management services is excellent, some is—

The Convener: But who is doing the good work and what work are they doing? Who is doing not so good work, and what work are they not doing?

Brian Kennon: I am not going to go down the route of saying what the not-good work is.

The Convener: Why not? Tell us.

Brian Kennon: No, because I am here as a diabetologist. I am not representing a weight management service, so that would fall outwith my remit. What we have is, I suppose, a disjointed service with regard to weight management and diabetes. You are asking for hard facts, and I have tried to reiterate that what we have happening on the ground is a short-life working group that is pulling together expertise from public health, weight management, obesity, diabetes, dietetics and pharmacy. We are getting them together and, as a result of that strategy, we will pull out pockets of good practice.

The Convener: But have we not done that before?

Brian Kennon: We have an opportunity to put in place a standardised approach. The diabetes

MCN structure allows any intervention to be more readily rolled out. There have been good examples; two years ago, I might have been talking about the pockets of good practice in type 1 education. We took that good practice and turned it into a national initiative that has now been rolled out across Scotland. Now everybody diagnosed with type 1 diabetes gets a similar education package, and we can determine their outcomes as a result of hard evidence. That is the route we are trying to go down with type 2 diabetes and diabetes prevention.

I am not going to lie: the changes to the primary care environment and the integration joint boards that Linda McGlynn has alluded to make it a challenge for diabetes and similar single-disease entities to get into that environment. However, with the current policy under review, we have an opportunity to establish a firm clinical pathway and those hard outcomes. The advantage that we have in diabetes is the ability to detect and monitor those hard outcomes and see where the approach is being effective. The problem to date has been the ability to define success—that has been challenging.

The Convener: What you are talking about comes after diagnosis.

Brian Kennon: No. I think that we can extend it back to the pre-diabetes stage. We already have a register of people with impaired glucose tolerance, impaired fasting glucose and gestational diabetes, and we should be utilising that data set to look more readily at the outcomes. Earlier, Brian Whittle asked whether we were picking up people only after they had had diabetes for a number of years. There have been big landmark studies that showed that 50 per cent of people with type 2 diabetes at diagnosis had complications. That situation has changed and the figure is getting less and less, which suggests that we are picking up the disease earlier. To be honest, I am optimistic that we are beginning to get several different things in place that will allow us to do this properly and in a standardised way across Scotland.

10:45

Linda McGlynn: I think the answer to the convener's question is: no—we have no consistent approach. What Brian Whittle is talking about is something that Diabetes Scotland is really supportive of and a piece of work for which we need support. At the moment, it is just in the early stages. However, there is no consistent approach across the 14 health boards.

Sandra White: This might seem controversial—I do not think that it is, given the references to people working together—but having listened to the evidence, I wonder whether you think there is a degree of protectionism in certain aspects of the health service. Is the issue that secondary and primary care do not want to let go of things and allow them to be brought into more of a community setting?

Brian Kennon: Whether by necessity or design, that kind of protectionism in diabetes has gone. Most type 2 diabetes care now comes under primary care, but we are trying to get a more dynamic interface with secondary care clinicians for more challenging type 2 diabetes cases. In Scotland, certainly, type 1 diabetes is still the remit of secondary care.

I understand where you are coming from. I dare say that there is a degree of protectionism in all of us, in all of our environments, but I do not think that that is the case with diabetes in NHS Scotland. The challenge is to take this discussion outwith the NHS and to make type 2 diabetes prevention and the obesity strategy the societal issues that they are. This is not about a group of primary care clinicians, a group of secondary care clinicians or a third sector organisation solving this issue. That is why the early years initiatives and all the other things that have been talked about are most welcome.

Linda McGlynn: I am not quite sure that the issue is one of protectionism, as Sandra White referred to; some of this is about a lack of understanding, awareness and realisation of the urgency of the issue. As Alison Cockburn has suggested, preventing people from developing type 2 diabetes and some type 2 complications such as heart disease will have a huge impact. There is certainly no protectionism; indeed, my experience of managed clinical networks is that when primary care staff are involved, the partnership works. People are there to improve care for people with diabetes. The issue might be a lack of awareness and understanding and the fact that diabetes is not high up the agenda of some of the integration joint boards.

The Convener: I will take Brian Whittle if his question is brief.

Brian Whittle: Coming back to points made by Linda McGlynn and Brian Kennon, are we talking about an educational or a health intervention here?

Brian Kennon: That is easy—both.

Brian Whittle: In that case—and I might be putting words in your mouth—do we need to get out of the silos of health budgets and education budgets?

Brian Kennon: Yes. This is a societal issue that society should be addressing, and that is why I think that when we start to look at the proposed strategy, we should look at transport, active living,

diet and exercise, marketing and so on as well as just healthcare services.

Linda McGlynn: In the English diabetes prevention programme, which focuses on group work, prevention, diet and exercise, education and learning are called skills development and knowledge development. That kind of skills and knowledge development and that awareness of diabetes for those at risk, for those living with the condition and for the wider community are what will help us tackle stigma and the lack of awareness and will maybe help us turn the corner.

Ash Denham (Edinburgh Eastern) (SNP): I was quite interested in Brian Kennon's comments about what is happening in other countries, particularly Finland. We have been talking this morning about spending money on prevention activities, the fact that, in Scotland, it would be good to target high-risk individuals—as we are doing—and the balance that needs to be struck in that respect with, say, national health campaigns, the issue of education that Brian Kennon has just referred to and other issues such as food labelling, fast-food outlets near schools, food advertising on television that is targeted at children and so on. I am interested in the panel's view on the balance between medical intervention on high-risk individuals and the wider societal issues that we have been speaking about. Are we talking about a 50:50 or a 70:30 approach?

Linda McGlynn: That is a hard question.

Brian Kennon: It depends on whether you are being short-termist or long-termist.

Ash Denham: I am thinking about very early prevention. Presumably, if being overweight is a factor, addressing that earlier in people's lives will have a knock-on effect.

Brian Kennon: That is true. Recent evidence shows that 50 per cent of a person's weight gain happens by the age of seven or so, so the early years are undoubtedly important.

If you were to say to me, "Here's your budget. How much are you going to give to both elements?", I would, off the top of my head, probably go for a 50:50 approach. As soon as we start placing undue importance on one area, we have the potential to lose the whole-system approach—which, ultimately, is what this is. As a diabetologist, though, I should be sitting here, saying, "I'll put 100 per cent of that money into early type 2 diabetes and the recently published DiRECT study and its great remission rates for diabetes."

Ash Denham: But that is for people who already have diabetes.

Brian Kennon: Exactly, but if we are taking a longer-term view for Scotland, we need to invest equally in both aspects.

Ash Denham: How do other countries where there is good practice split up the spend? Do we have any information on that?

Brian Kennon: No country is doing well on this, because this is a pandemic that is increasing and increasing. There is an increasing recognition among the international diabetes community that, instead of looking at diabetes in a silo and worrying about it once it has developed, we have to take a lead in preventative measures, too.

The Convener: Do we need to follow what is happening in England and its prevention programme?

Linda McGlynn: The English prevention programme is doing quite well. A substantial amount of money was put into it, and the eight pilots showed quite a lot of improvement in terms of people losing weight and maintaining that weight loss. Another report on the programme is coming out in April, but you can find all the evidence so far from it on the Diabetes UK website.

The Convener: Is it something that we should be taking up here?

Linda McGlynn: Yes, I think so. Investment should be made in these prevention programmes, but they need to be community based and multifaceted, and they need to involve a range of individuals including healthcare professionals, health psychologists, the third sector and peer support. It has to be a partnership approach. That is the kind of model that is being expanded in the prevention programme in the Borders, from which we will, I hope, get some good evidence over the next five years.

The Convener: Does anyone else wish to comment?

Brian Kennon: We should learn from good practice, wherever it is in the world. I do not think that the English diabetes prevention programme in isolation is a model that we should adopt wholesale; after all, if you have a strategy that only identifies, screens and intervenes on high-risk individuals, you will miss the opportunities at a population level. There are some aspects that we could look to mirror and the intention to standardise the interventions on offer is worth while, but we have an opportunity to go further and take a population-level approach as well as looking at high-risk individuals.

Miles Briggs (Lothian) (Con): I want to develop two points that have already been touched on. First, to what extent are people with type 2 diabetes across Scotland having at least an

annual review to see whether they should be on medication or whether they could be supported to come off it?

Secondly, one of the panel touched on levels of prevalence among the black and minority ethnic community. What work is being done in Scotland to focus specifically on that community—and any potential language barriers—with regard to diabetes?

Andrew Job: On your first question, an annual check-up is the minimum, but ideally it should happen every six months. There are always constraints with regard to resources, timing, availability and so on, but the minimum is 12 months. As I understand it, though, it depends on the individual and whether they are improving, stable or deteriorating.

Miles Briggs: Is everyone in Lothian receiving that annual check-up?

Andrew Job: I believe so.

Linda McGlynn: Brian Kennon might have the exact figure for Scotland as a whole, but there is variation across the country with regard to the standard and the number of people with type 2 diabetes who are getting all of the nine care processes and their annual review. There are some very good pockets—Lothian and Glasgow, for example—where people are getting their annual review. The issue is getting the back-up. The other thing that you have to realise is that a lot of people simply just do not turn up for their annual review, and we will always have DNA rates. The situation is patchy, but it is certainly improving and it could certainly improve more.

Alison Cockburn: The annual review is the minimum, though; it is, if you like, the lowest common denominator. It is a kind of tick-box exercise for checking HbA1c, blood pressure et cetera. The nine measures that the MCNs look at individually in each board assess all of those areas. For example, the blood pressure measure, which is key to my own interest, is really a population-level measure; as such, it is not the ideal for diabetics, because we would really struggle to reach it. They are just broad-brush indicators for the diabetic population in a board.

Brian Kennon: The annual Scottish diabetes survey gives data for each of the boards and their performance against the nine measures. As I have said repeatedly, we have been able to collect data for a long time in diabetes; the key issue is turning that data into improvements in care, which is why in the past two years we have introduced MCN quarterly reporting. The MCN in each board reports their performance against 12 measures, and the hope is that the board and the MCN will take ownership of two or three areas in which they can introduce and drive health improvement. It is not just a matter of ticking a box and saying, "We've collected the data." The question is: how are you going to use that data to drive improvements? That is one of the key areas that we are working on in the Scottish diabetes group. We are cognisant of the many reasons why the situation is not 100 per cent and why not everybody is getting this, and we need to identify and work on the issues in that respect.

With regard to your question about the BME community, I can say as the MCN lead for NHS Greater Glasgow and Clyde that we have a specific equality of access to health group tackling certain BME issues, although those tend to be quite standalone, specific projects. However, when we talk about equality of access and deprivation in Glasgow, I would point out that the hardest-to-reach communities are not just BME but those in deprived areas, too. Some work is going on to address that, but I would not pretend that any of it is easy or not challenging.

Jenny Gilruth (Mid Fife and Glenrothes) (SNP): Ash Denham—and, I think, Brian Whittle—alluded to the split between health and education with regard to this issue. My question is specifically for Linda McGlynn and Andrew Job, who, in his submission, recommends

> "Making education available in Schools to ensure that children are taught cooking as well as nutrition so that they leave school with the appropriate knowledge to prepare and recognise healthy food."

I thought that that was already happening in schools. To your knowledge, is it not? Moreover, does your organisation work directly with schools themselves?

Andrew Job: If that is happening, we are not seeing much of it coming through at the other end. As a local group, we talk occasionally to school groups, but such talks are not regular or organised in any shape or form. It really depends on whether we get invited.

I have started to work with employers, and we are now getting in and talking to groups of them. For example, I recently went to Haddington to talk to the company that is rebuilding the hospital there. We got all their contractors in and had two or three very good sessions on educating people about food, the balance between food and exercise and healthy living. We are not involved in any structured or organised programme, but I believe that education and having the knowledge to make these kinds of choices are fundamental to improving lifestyle.

11:00

Linda McGlynn: We go in and talk to schools, but again it happens on an ad hoc basis and if we get an invitation from a school to go in and talk

about diabetes, the need for healthy eating et cetera. A few years ago, we and the Edinburgh international science festival had a joint programme called live for it! in which we did six weeks primarily with schools in deprived areas to raise awareness of diabetes, healthy eating and so on. We did quite a few schools up and down the country; that went on for a while, but unfortunately the programme stopped due to lack of funding.

One of the things that I have noticed from going into schools is that, although children get home economics in first and second year of secondary school and it is mandatory, they do not do it any more after that. I think that there is something to be said for keeping those core skills in the curriculum.

Jenny Gilruth: In my experience as a former teacher, it is not mandatory that pupils are not allowed to take it. They can choose to take it at the end of secondary 3.

On the funding issue that you have flagged up, the pupil equity fund gives headteachers a lot more power over what they can spend their money on. Do you see an opportunity for Diabetes Scotland to create a pack of materials or to look at what you do as an organisation and perhaps bid for some of the funding that is now available to headteachers?

Linda McGlynn: We have already put some resources and information together. Our make the grade programme, for example, looks at how children with diabetes are looked after in school and at different elements such as managing diabetes, eating healthy food and so on. What you have suggested is probably not something that we have considered, but I would not rule it out. We certainly have resources that are already available to and can be accessed by schools.

Jenny Gilruth: Are those resources linked to existing content in the health and wellbeing area of curriculum for excellence?

Linda McGlynn: The make the grade approach is, but our general packs, which is about giving people advice on diabetes, are not.

The Convener: I have two more questions before we finish. When is the short-life working group's report due to be published? Finally, when is the strategy going to be published?

Brian Kennon: As Alison Diamond chairs the group, she might be able to update you on that in the next evidence session.

The Convener: So we can leave that for her.

Brian Kennon: It is called passing the buck.

The Convener: And it was very skilfully done.

I should point out that Professor Lean could not attend the meeting as he is in Saudi Arabia for a conference, but we will hear from his co-author, who is on the next panel. I thank the witnesses very much for their evidence, and I suspend briefly to allow a changeover of panels.

11:03

Meeting suspended.

11:07

On resuming—

The Convener: We continue with our evidence taking on the preventative agenda, with a focus on type 2 diabetes. I welcome to the committee Dr Lynne Douglas, steering group member, Obesity Action Scotland, and director of allied health professionals, NHS Lothian; Pete Ritchie, co-convener, Scottish food coalition, and director, Nourish Scotland; Heather Peace, head of public health and nutrition, Food Standards Scotland; Professor Falko Sniehotta, professor of behavioural medicine and psychology, Newcastle University; and Alison Diamond, chair of prevention sub-group, Scottish diabetes group, Lothian weight management service lead and diabetes specialist and metabolic dietitian, NHS Lothian.

Alison Diamond (NHS Lothian): That's me!

The Convener: That is a big title.

We will move to questions. Sandra, do you want to open the questioning again?

Sandra White: Yes, convener.

I asked the previous panel about the environmental aspects of prevention. Do you have any thoughts about causes in that respect? Is there any evidence in relation to environmental aspects such as, for example, carcinogens that cause obesity and therefore cause diabetes?

My other question relates to fast-food outlets and a huge list of related issues such as unhealthy food and poverty. What we can do in that respect? Obviously, we do not have powers that would allow us, say, to stop sugar going into foods.

Heather Peace (Food Standards Scotland): I am happy to pick that up. I take it that, by "environmental", you mean the food environment.

Sandra White: We have received evidence about the effects of heavy metals in the air, pollution and that type of thing, but the previous panel said that there was not much evidence of that. I do not know whether you feel expert enough to answer that question.

Heather Peace: I am sorry, but I do not.

Sandra White: My other question was about fast food, fats and sugar. How can we use the prevention strategy to prevent particularly younger kids from accessing that kind of food? My mind goes back to the campaigns that I was involved in many years ago to get fast-food vans moved away from schools. We found it very difficult to do; indeed, we cannot always do it even now. What are your thoughts on that?

Heather Peace: I am afraid that I do not have any evidence about heavy metals, but I am happy to pick up the second question, which is more about the food environment that we all navigate in order to buy and consume our food. The view of Food Standards Scotland and of the board is that although education is very important—we do not deny that; indeed, we do a lot on the education front—the food environment needs to be changed if we are to move towards healthier eating. That might relate to what we call the out-of-home environment, by which I mean the whole arena of takeaways and other places outside the home where we purchase and consume food. Food Standards Scotland has done some work on that quite complex area; indeed, we have published information on that landscape in Scotland, and we have made proposals on how to change it.

The current Scottish Government obesity consultation asks about the development of an out-of-home strategy for Scotland. At one time, that might have been called a catering strategy, but the phrase "out of home" also encompasses supermarkets that sell food on the go. It goes from that sort of thing right up to the high end and covers all the stuff in between such as takeaways.

We absolutely recognise that this area needs to be tackled, because it is a part of the diet that is expanding. People are eating more food this way, so we need to get a handle on it. Food Standards Scotland will take a lead and work with partners on a strategy that might—and, we hope, will—help to address the issue of the out-of-home environment in Scotland.

Dr Lynne Douglas (Obesity Action Scotland): In response to Sandra White's second question, Obesity Action Scotland recognises that the crisis in Scotland is highly attributable to the obesogenic environment and is therefore looking to make a significant contribution to the out-of-home strategy. We would also highlight the need to regulate and control portion sizes and to take on board issues such as the regulation of price promotion in order to tackle obesity as a result of high-calorie foods, which obviously have a key impact on the obesogenic environment. Moreover, we think that an important part of the strategy that is out for consultation is the soft drinks levy as a means of reducing the likelihood of individuals wanting to buy such things.

Professor Falko Sniehotta (Newcastle University): It is important to emphasise the overwhelming evidence of the link between type 2 diabetes and geographic and socioeconomic factors. The two go together. Scotland has one of the best sets of statistics for multiple deprivation at neighbourhood level, and those statistics can be used quite easily in providing a very impressive mapping of the relationship between those things. It is important that we look at geography, environment and socioeconomic status in conjunction and understand where the pockets with a particularly high geographic risk are. Some of the proposed policies have a good evidence base—that evidence is easily available—and are feasible; indeed, they have been used elsewhere.

Pete Ritchie (Nourish Scotland): The Scottish food coalition would concur with that. I would also point out that the last addition to the FTSE 100 index was Just Eat, which has no outlets and makes no products. What it does is get you your pizza quicker.

Since 2008, the number of fast-food outlets in the UK has risen by around 50 per cent. This is an industry that needs to sell more. We have a more or less static population in Scotland, and every industry is on a growth curve. Something has to give and, at the moment, what is giving is our health. That is the case not just in Scotland, but globally. This industry has perfectly legitimate growth targets, but we can eat only so much and stay well. As I have said, something has to give.

The quality of what we are eating is changing and, indeed, has changed significantly. In our view, the issue is not just the calories, but the degree of processing and the lack of fibre in food. The World Health Organisation recommends at least 20g of fibre a day, while Food Standards Scotland recommends 30g. However, we are coming in at under 12g, and that is having significant impacts on our health and is linked to the incidence of type 2 diabetes.

11:15

Sandra White: With regard to poverty and areas of deprivation, what are your thoughts on the point that the convener raised with the previous panel that there seems to be much more diabetes in deprived areas than in affluent areas? I am thinking of, say, the eating of more processed foods. Given those kinds of deprivation pointers, should the strategy target certain areas? Do you think diabetes is more prevalent in areas of deprivation than in more affluent areas?

The Convener: Adding to that, is there any evidence of resources being directed at those communities in very practical ways?

Pete Ritchie: It is absolutely the case that people on lower incomes have worse diets—and that is not because of a lack of education, but because of a lack of finance. For example, carrots are, per calorie, three times more expensive than processed food. We might think that food is cheap—and it is certainly cheaper in historical terms than it has ever been—but for people trying to manage on a fixed and constrained budget, the fact is that the cost of good food is prohibitive. Lots of people are finding that they cannot afford to eat the food that they know they want to eat, and there is no systematic approach in Scotland to rebalancing that situation. Free school meals are a bit of a help, and there is also the healthy start scheme, which we are trying to revamp a little bit. However, it is a very small scheme if we are looking at this at a population level. The last time we balanced the diet was during the second world war, and that was also the last time that we saw major increases in the equalisation of public health outcomes.

Heather Peace: We have been tracking changes to the Scottish diet for quite a long time now, and we have found that really very few changes have stuck over the course of about 20 years. As for inequalities across the whole population, no matter who it might be, everybody is eating too much fat, too much sugar and too much salt. We are all equally consuming the less healthy and unhealthy parts of the diet. They might come in different forms; some of us might buy our saturated fat or sugar in a cheap form, and some of us might buy it in a fancier form, but the nutrient profile is the same.

Where we see a difference is in those foods that are perhaps more protective to health. Pete Ritchie is absolutely right that fruit and vegetable consumption is lower in lower socioeconomic groups; the amount of vegetable consumption, particularly by children in Scotland, is woeful; and lower socioeconomic groups are consuming less oil-rich fish, less fibre and less wholegrain food. Across the piece, we are all having problems. We are not yet done with costing the diet, but I can see why its more health-enhancing parts might be more expensive and therefore less accessible to people.

Dr Douglas: We know from weight screening that the children in the most deprived areas have the highest incidence of obesity and of being overweight. In 2015, 22 per cent of children in primary 1 were at risk of obesity or indeed of being overweight, so there is a link in that respect and an evidence base about the socioeconomic impact.

Alison Diamond: As part of the prevention strategy, we are trying to work across health and social care to deliver services through local council and leisure venues that incorporate healthy eating and access to the self-esteem and mental health side of things as well as physical activity. Certainly, we are trying to take the services to the community, because the ability to access and get to services can also be an issue in lower-income areas and areas of deprivation. We are also trying to work with social planning; indeed, with fast-food licences, it is almost as if the aim is to put a cap on the number of such venues in areas.

We are trying to work across the health and social care agenda. We have looked at examples of good practice in different areas across Scotland, and we are trying to bring all of that together in a framework to suggest what good practice is and to offer practical guidance on how it can be implemented.

Sandra White: That is good.

The Convener: I have not yet heard a single policy that people know of that is deliberately targeting resource at areas of deprivation. It might well be that you do not know, but I asked for examples and I am not really getting any.

Alison Diamond: I can give you an example from Midlothian, where I am lead for the weight management service. The Midlothian IJB is quite small, but we have been trying to implement prevention. As far as health and social care integration is concerned, we have met probably four or five times; we have had events; and we have worked with the schools and social planning to try to create a pathway that is a kind of one-stop shop to ensure that it is all seen as joined up and that it is being developed together. The big thing with these types of prevention programmes is the finance aspect, and the Midlothian integration joint board has made that the area on which it will focus moneys. As a group in Midlothian, we have decided which services we will provide, and we have made that the priority.

Heather Peace: On the challenge with regard to whether there is anything happening with policies around inequalities, one that springs to mind is a Scottish Government-sponsored initiative run by the Scottish Grocers Federation in which small convenience stores, mainly in more deprived areas, are being encouraged to put their fruit and vegetables at the front.

Alison Diamond: Perhaps another example is access to physical activity. Councils are now providing free classes or access to gyms and so on for a pound, which is actually making physical activity more accessible and more economical.

Pete Ritchie: Twenty years ago in 1996, we set up the Scottish diet action plan. Since then, there has been funding for community food organisations, but it has been piecemeal and made up of small amounts, and lots of the

organisations struggle year to year to actually get the budget. They do very good work in their own communities to try to improve access to fruit and veg and healthy cooking and they operate at the community level, but I think it is all very small scale compared to the scale of the problem that we are actually facing.

The Convener: And many in my area, in particular, have closed due to local government cutbacks.

Pete Ritchie: Yes. They are always scraping around.

Professor Sniehotta: I can give you two slightly different examples. First, I should mention the prevention of diabetes and obesity in South Asians trial in Edinburgh, which was really important in its work with South Asian communities. Of course, there are other non-community related interventions that have an effect on health inequalities. For example, minimum unit pricing of alcohol is likely to have a stronger financial disincentive in communities where money is tighter than in communities where money is more available. There are a few examples in which more deprived communities have been targeted but they have not necessarily been community-based actions.

Ash Denham: Professor Sniehotta, I am very interested to hear more about your DiRECT trial, because certainly up until recently, people imagined that, if they got type 2 diabetes, they would be stuck with it and that the health service would be left to manage the symptoms and prevent its escalation. However, your trial has shown that that is not the case; indeed, you have had extremely good remission rates. Can you tell us a little bit more about it?

Professor Sniehotta: Yes. It is not news that diabetes—type 2 diabetes, that is—can be beaten into remission through dietary intervention; that evidence has built up over a while now. Of course, it all started with Professor Taylor's physiological hypothesis, and we had a really positive collaboration between the north of England and Scotland in which that was worked through. The big news that comes from this intervention is that the effect can potentially be scaled up by delivering it in a standard healthcare environment and at a rate that might well fuel fantasies of a service that can provide diabetes remission to a large proportion of the population. I think that that is the great news.

We have had quite a strong result, in that we now understand the physiological mechanisms. There have been smaller studies showing similar effects, but we have seen from this trial that we can reach a target of almost 50 per cent remission at population level. There is clearly an opportunity to adopt the approach into policy at an early stage, but I should note that it is still a trial, and a lot of additional work will need to be done to find out what is needed to turn it into a policy. However, I suppose that it gives the Scottish Parliament the opportunity to work out what these steps are and to fill the gaps.

Ash Denham: Would the intervention be delivered in a primary care setting and therefore in the community? Would it be delivered in small groups? I think that what you have said is that there would be an intervention over three to five months and then longer-term support.

Professor Sniehotta: The intervention involves a total meal replacement for three to five months, and in that respect, we are looking at a balanced low-energy diet. As the older ones among us will remember, when these low-energy diets first came up, people talked about losing their hair and other kinds of side effects. That is still in the back of people's minds. Nowadays, of course, these interventions are so nutritionally balanced that they are probably better than the typical Scottish diet, if I may say so.

We have had a higher-than-expected hit rate in getting people through the initial period of adherence to the intervention. There is then a structured reintroduction of normal food and a structured approach to supporting weight loss maintenance. I think that, taken together, the results speak for themselves—the approach is quite effective.

If you were to roll the approach out beyond research-interested practices and those joining studies, some of the main indicators—in particular, the percentage of people gaining the 15kg weight loss target or the number of people actually experiencing remission—might be a little bit more variable or a little bit lower. However, given the enormous power of the findings, you could have lower follow-through rates at a population level—indeed, that always happens when you translate trial evidence into population services—and still have a very cost-effective service. It is not only a sensible thing to do in the health service but something that I think empowers people with type 2 diabetes. I know that, in England, Professor Taylor receives a large number of messages, emails and letters every day from people telling him how important it is to have some way of getting off a type 2 diabetes diagnosis.

I should also point out that we have seen similar reversals in bariatric surgery in the past, so again this is not a total surprise or something that the community did not think would happen. We thought that it would happen, but we did not quite appreciate at what level it would happen and how scalable it would be. I think that, from a policy perspective, it is a game changer.

Ash Denham: Thank you.

I want to ask the panel a question that I asked the previous panel. Obviously, we are discussing preventative intervention but the focus has been on people who are already diabetic or on targeting high-risk individuals before they cross over. If, on the other hand, we also want early prevention—if we want, say, to educate people about food choices and to look at food labelling, advertising to children, fast food and all those types of things—where should we strike the balance with regard to spending? Would it be a 50:50 approach, with money spent on early measures that focus on food, or would you spend more of the money on high-risk individuals?

Professor Sniehotta: As the principal investigator of the formative evaluation of the first two phases of the English diabetes prevention programme, I am particularly interested in this area. The fact is that some upstream interventions affect not only type 2 diabetes but a range of other things, so the question is perhaps not well perceived. You cannot balance a budget 50:50 when the target and the potential effect of the interventions are quite different.

Your question is therefore difficult to answer. After all, if you managed to affect the Scottish diet and the Scottish population's energy intake, physical activity, environment and so on, it would have benefits across the board for depression and perhaps attainment and productivity. To limit such an approach to the perspective of type 2 diabetes prevention would be narrow and would perhaps undervalue it.

Ash Denham: Okay.

11:30

Dr Douglas: As far as primary prevention with regard to obesity and overweight in our population is concerned, Obesity Action Scotland believes that a key opportunity was set out in the announcement in the Scottish programme for government of the consultation document "A Healthier Future: Action and Ambitions on Diet, Activity and Healthy Weight". Indeed, addressing the obesogenic environment through primary prevention in order to prevent people from becoming obese through lack of physical activity and overconsumption of nutrient-dense food will be a key pillar in delivering "A Healthier Future".

I would also point out that no services are consistently targeting type 2 diabetes and its prevention across Scotland. In fact, that lack of consistency was indicated in the review "Variations in weight management services in Scotland: a national survey of weight management provision", which was published in 2015 and is cited in the Obesity Action Scotland submission.

As a result, we have a key opportunity to address not only the primary prevention of obesity and overweight in our population by introducing the measures that we talked about earlier but targeted interventions for those most at risk by consolidating the current weight management services in Scotland. Given that 47 per cent of cases of type 2 diabetes can be attributed to obesity and that 65 per cent of our population is already regarded as obese or overweight, measures to deal with the obesogenic environment will not be enough. We will need to think about how we underpin the core weight management services to impact not just on the development of type 2 diabetes but on the contribution of obesity to our common cancers and to cardiovascular disease.

Brian Whittle: I am interested in the points that Pete Ritchie and Alison Diamond made about access to healthier foods and access to activity, which I think are linked. It strikes me that school is surely the place to address that, especially in the socioeconomically poorer areas. I am sure that we have an opportunity to introduce kids to healthier food at school, especially through school meals. I have talked to a few schools about the uptake of free school meals. In one of them, fewer than 20 per cent of the pupils who were eligible to have free school meals actually took them. The rest of them chose to leave the playground to get high-calorie food of poor nutritional value.

If we are unable to stop fast food vans parking outside schools, do we need to stop kids leaving the school playground? Should we be focusing on what we can change—in other words, the school food environment and the school activity environment?

Heather Peace: Quite a lot is already being done in schools on the education aspect. By the time they go through school, kids are pretty savvy about what a healthy diet is. They are not ignorant, but knowledge does not always translate into action. The fact that there are quite strong drivers for young people to go out of school and to experience what is beyond the school gate is a problem. It would probably not be practical to keep all the children in over the lunch period, given the size of schools, the size of dining rooms and the shortness of the lunch break. Those are big challenges.

School is important. A review of the standards is under way. We need to look at how they might become tighter, but I would not put all my eggs in one basket. There is no single silver bullet—a package of measures needs to come together for the Scottish diet to change. I do not want to dismiss the school angle, but it is not the only one. There are other actions that might help to clean up the obesogenic environment. The environment is

now less obesogenic, but things such as price promotions need to change, and we need to look at advertising and marketing to children. We need to think about reformulating the food that is out there to take some of the salt, fat and sugar out of it so that the choice is better than it was.

The board of Food Standards Scotland would argue that taxation measures need to be taken that go beyond the soft drinks industry levy. We absolutely agree that, on the education side, public campaigning is helpful but that it will not provide the whole answer. We have stated that education on diabetes would be useful. An earlier witness talked about going into schools to discuss the consequences of diabetes, which I do not think are well understood. There is work to be done on addressing the accessibility and affordability of a healthy diet. Most of us here will know what a healthy diet is and what the components of it are. There are many reasons why people do not have a healthy diet, and one of the barriers relates to accessibility and affordability.

The other thing that is really important here is the provision of consistent dietary messaging, so that we do not get messages from everywhere that are inconsistent and confusing. Schools are an important focus, but concentrating all our eggs in that basket would not be enough.

Brian Whittle: I was not suggesting that.

Heather Peace: I am sorry if I picked that up.

Alison Diamond: In the prevention framework, we are looking at an approach that stretches from birth to the end of people's lives. We have identified that we need to look at pregnancy, breastfeeding and weaning. There has been a big health visitor review and how health visiting is delivered in Scotland is changing. We are introducing more screening of weight and height, in which there was large gaps. We are working with mothers who are overweight during pregnancy and trying to get them into weight management programmes once they have had their babies to prevent further weight gain in between pregnancies. We want to provide pre-diabetes support for those women who have gestational diabetes, because we know that they are a high-risk group. We want to encourage breastfeeding and healthy weaning, because by the time children get to five, their healthy eating habits are almost ingrained. We are trying to encourage a family approach as opposed to one that is targeted at individuals.

People's behaviours around eating are learned from the family home, and we are trying to influence those at every stage. A big part of the work that we are doing is on the maternal and infant nutrition strand of things. We want to give guidance about health eating, weight management and the importance of preventing diabetes in the early stage of pregnancy and in the pre-pregnancy stage.

Pete Ritchie: That is absolutely right. We changed the alcohol environment, we changed the tobacco environment and we can change the food environment. We must take the issue very seriously. As Falko Sniehotta said, changing the food environment has good effects not just on diabetes but across the board. We need to let nutrition do the heavy lifting here. We know, for example, that the volume of fruit and veg that we buy in Scotland from the supermarkets is about a third of what it should be if we were to have a balanced diet, and we know that it is much lower in the out-of-home sector.

The companies that create our food environment are creating a food environment that is not what we need to eat according to our dietary targets, so we need to change what they provide. Individual products do not necessarily need to be changed, but the basket of what is provided needs to be changed, otherwise we will not be able to eat healthily. With the exception of breastfeeding, we depend on the food industry to deliver our food environment, and we need to change what it delivers if we want a better food environment for all of us to grow up in.

Jenny Gilruth: I have a brief supplementary to Brian Whittle's point. He said to Heather Peace that the issue was not just about school meals. However, for a growing number of children in Scotland, their free school meal might be the only meal that they have all day. Has any research been conducted on the nutritional content of school meals in Scotland? In my experience as a former teacher, what kids are offered varies across the country.

Heather Peace: I am sure that you are right—it varies across the country. There are standards for school meals in legislation. I cannot say how well those standards are being met, but I know from anecdotal evidence that it varies across the country. Some schools and areas will be doing really well against those standards and others might not be. The free school meal is extremely important. I accept that, as it might be the only meal that a child gets, the standard of that meal is important. I would not say anything other than that.

The school meal regulations are currently under review. The last time that they were looked at was in 2007-08. Since then, a number of evidence-based recommendations have been made on diet and health. For example, it has been recommended that the sugar content of people's diets should be reduced and the fibre content should be increased, and that the effect of the consumption of red meat on the risk of colorectal

cancer should be looked at. All that advice has been given since the regulations were set.

Ivan McKee: I want to pick up on what Heather Peace and Pete Ritchie said about the relative costs of good foods and bad foods. In general, the good foods are more expensive. You mentioned taxation policy as a possible avenue. I want to explore what you propose in that space, whether in the form of taxation and/or subsidy. Do you have any examples of other countries that have taken that approach? Given that the cost of diabetes to the health service is probably around £1 billion a year, if we get this right there will be money available to support initiatives. What are your thoughts on that?

Heather Peace: The current example is the United Kingdom Government's soft drinks industry levy, which I think will come into play in April next year. In advance of that happening, the soft drinks industry has removed a lot of sugar from its drinks. It has reformulated its products. That is what we need to see, and I think that that is great. It is almost a totemic measure to say, "Enough's enough. You don't need to put that amount of sugar into any of your products. Take it out, please". That is extremely important.

However, in monitoring the diet overall, we see that that same amount of sugar has not been removed from the whole diet, so some of it must be going back into other products. We need to ask whether we ought to start thinking about other products that sit below the soft drinks industry. The obvious one would be confectionery, which uses a lot of sugar. Consumption of confectionery is completely discretionary in the diet. We all like it, particularly at this time of year, but we do not need it. There is a lot of that kind of food in relation to which the scope exists for taxation to improve people's diets.

Dr Douglas: In addition to that, we need to tackle price promotions for the high-fat, high-sugar, energy-dense foods that people whose ability to buy nutrient-dense foods is limited are particularly drawn to. We certainly think that there is a key opportunity for action there in the healthier future strategy that is out for consultation.

In addition to that, there is the wider impact of reformulating key products. As a nation, we consistently miss our targets on the intake of saturated fat and free sugars. That has a particular impact on the diet of children. If we were able to reformulate some of the high-consumption foods such that we were to reduce the sugar intake by 50 per cent in key products, we would be able to lower the sugar intake from 12 per cent to 9 per cent in adults and from 15 per cent to 10 per cent in children. We think that reducing the sugar content of key foods that are available in our supermarkets, increasing the fibre content and reducing the level of saturated fat would have a significant impact on the dietary goals that people are achieving.

Professor Sniehotta: Indirectly related to that is the evidence that exists on the effectiveness of legislation on advertising—in particular, the advertising of energy-dense food for children during children's programmes. There has already been legislation in the UK, and there is good evidence that it has been successful in decreasing the popularity of certain food options.

Ivan McKee: Are there any thoughts on subsidies for foods that are good for you?

Pete Ritchie: There is a good argument for increasing the availability of free vegetables, particularly for children. I cannot see why you would not do that and make that easier for children. There is obviously the issue of targeting; it is a universal benefit if you do it for all children. Increasing vegetable intake would be very helpful.

11:45

We have been running a voluntary initiative with the major retailers in the UK and we have got more than 50 per cent of them signed up to increasing their vegetable sales, but all voluntary initiatives suffer from the problem that they can lose traction after a time. We in the food coalition would argue for the bar to be raised continually on regulation and expecting our multiple retailers—particularly in the out-of-home environment—to reach some minimum standards not just on the lack of high fat, sugar and salt in food but on the positive presence of whole grains and fibre. We need to make it harder for anybody to open a food outlet and sell whatever they want. That is vital for our health. It is a very underregulated area in the sense that anybody can set up a business and sell stuff that is not very good for our health.

The Convener: We used to have free fruit in schools, but that has gone by the wayside.

Heather Peace: I just want to add that we have done a bit of consumer work, and the idea of taxation coupled with subsidy is quite popular.

Alison Johnstone: I will direct my question to Pete Ritchie in the first instance. In response to the committee's question

> "To what extent do you believe the Scottish Government's Diabetes Improvement Plan 2014 and the approach by Integration Authorities and NHS Boards is preventative?"

the Scottish Food Coalition is quite critical, saying in its submission:

> "it seems entirely focused on the quality of individual treatment and care. This is not a prevention strategy and makes no mention of diet and other lifestyle factors".

You also point out:

"there is no global analysis on the balance of government spending ... between prevention and treatment of ill-health."

However, although you have made some fairly critical and direct comments, you still think that there is hope. You think that the document "A Healthier Future" makes things "much clearer", and you are also of the opinion that

"the Good Food Nation agenda has real potential"

for change. Does that agenda have the power to counteract what is not happening in other areas?

Pete Ritchie: It probably does over a generation, but we have to take what we describe in our evidence as

"a 'whole of society' and 'whole of government' approach".

After all, this is about not just diabetes or sugar, but what sort of country we want to be and how healthy we want our population to be. If we want to live in a country where we as a population are not just marginally less unwell but actively brimming with health, we will have to change a lot of things about how we organise our society. Congestion charging is probably as important as sugar tax and sugar reduction. All of those things go together if we want to have a healthy society.

With regard to Brian Whittle's comments about changing how we do things in schools and what we have done with regard to active lifestyles, I think that it is all of a piece, but we have to be serious about wanting to make radical change. As for criticising the strategy, I am afraid that all I that could do was read what was written on the page and the words that were used. I am sure that colleagues working in the field are very focused and very keen on prevention, but the strategy itself does not spell that out and allocates no resources to primary prevention—in other words, to changing the food environment that, as Obesity Action Scotland has said, is driving a lot of people both in Scotland and worldwide into type 2 diabetes.

Alison Johnstone: I was horrified to hear what you said about Just Eat in your opening comments. At a meeting that I had with Professor Charles Milne—I believe that it was a discussion with the Food Standards Agency at that point—he mentioned a statistic that up to 15 per cent of Scottish households might not have any cutlery. I questioned the figure, but you can almost understand why that might be happening, given the access to eating outside the home and so on.

However, we seem to have two different cultures. Scotland is known globally for the quality of its produce, but it seems that the produce that we are buying, serving and eating is markedly different. How do we go about changing that? Another challenge is that more and more people are relying on what is provided for them at food banks and so on. How do we ensure that those people are getting anything like the daily amount of fibre that they need?

Pete Ritchie: Improving nutrition must be a goal not just for this committee but across Government—indeed, at the most senior level of Government. It has to be seen as a whole of Government thing. Alison Diamond is absolutely right—this has to start pre-birth. Because it all starts in the first 1,000 days, so we have to re-engineer how we get food to people. The fact is that we are not going to go back to a time when everybody grew their own vegetables—or even a time when everybody went home and cooked seven days a week.

What we can ensure is that people eat the right stuff, even if they get it from a takeaway. You can get something from a takeaway for 99p that is immediately filling, or you can spend £3.50 on a quinoa salad. It does not matter what your income is, if you are hungry, you will buy the stuff that fills you up for 99p. As a result, we have to change the food environment to ensure that the stuff that is good for our health is as cheap or is cheaper than the stuff that is not so good for our health.

We also have to change the whole way our culture looks at eating opportunities. We have crammed so many more eating opportunities into our days—and, indeed, our lives—that it is very hard for people to just say, "I'm not going to eat anything now." That sort of thing relies on people having huge amounts of self-discipline and motivation.

We therefore need to change how easy it is to fill up on stuff all the time. For example, when I was growing up, you did not get food in garages; now you cannot get through a petrol station without being asked to buy more food that you do not need. I do not want to sound puritanical about this, but if we want a healthy society, we need to do something about our relationship with food, and part of that is about regulating the food environment in the way that we have regulated other environments.

Miles Briggs: Some GPs who have given evidence to the committee have said that they are not comfortable about talking to patients about weight, and in the past I have asked about the issue of social prescribing and where people can go in that respect. Might such an approach be developed through, say, using the capacity provided by private weight management companies such as Weight Watchers, which is perhaps not being utilised?

Alison Diamond: In NHS Lothian, when we got a small amount of money for a weight management service, we looked at what was available. We saw that Greater Glasgow and Clyde had gone out to tender and got Weight Watchers; however, what it does is make money

from people losing weight. It does not cover the behavioural change or physical activity side of things, and we found that we could, for a cheaper price, provide a service in unison with the communities and with health and social care.

We used an evidence-based model, and we ensured that our colleagues in leisure centres were trained to level 4 on the register of exercise professionals with regard to physical activity. We mentored them and supported them, because we see ourselves as a wider team. Instead of going down the commercial route—at the end of the day, that is about promoting Weight Watchers' low-calorie chocolate bars, which is not the message that we want to send—we provide a tiered model of care across all of Lothian that patients can access wherever they are and which provides subsidised physical activity et cetera. Instead of simply presuming that it is cheaper to go out to tender, we have shown that such an approach can be ruled out and that we can do this economically by using what we have, working together and having the service provided by qualified professional staff at different levels.

We have certainly encouraged self-management. We have tried to go into the communities; for example, we have established groups specifically for carers who would otherwise find it difficult to access groups, and we have provided specialist swimming classes for Asian women's groups that they need to attend privately. I think that going into the communities, seeing what is available and providing services that suit everyone is a better approach than going down the commercial route.

Professor Sniehotta: I have no interest to declare, but I think that the wider evidence shows a slightly different picture. Quite strong evidence from trials of weight management services shows that the commercial providers consistently do this sort of thing as good—or usually better—than NHS-related providers.

I apologise for giving an example from south of the border, but evidence from a trial that was published this year in *The Lancet* by the Oxford group led by Paul Aveyard showed that a simple referral to a commercial weight management programme, which takes a GP less than 30 seconds, results in spectacular effects on weight over a year. When patients were asked whether they thought it appropriate to be referred by the GP, they said that they found it rather effective. I think that we need a more measured approach. There is good evidence to suggest that commercial providers have something to offer in the picture, that the health economics in that respect are not necessarily unfavourable and that there are effective and proven methods of referring people from primary care services into weight management provision. It is worth looking at the issue from different angles and considering the local and global implications of decisions.

The Convener: You said that you had no interest to declare, but has any of your research been associated with any of these companies?

Professor Sniehotta: No.

The Convener: Thank you—that is fine.

Alison Diamond: For a lot of the commercial programmes, people might want to go on them and might have the means to go on them, or they might be prescribed, but something like 40 per cent of the patients we see in our weight management service have underlying eating disorder patterns and are morbidly obese. They usually need psychological input prior to embarking on weight management, and we find huge success in carrying out quite extensive screening with our very complex patients.

For patients with mild to moderate obesity, the commercial providers might have a place if they are motivated to use them, but our population in Lothian has a huge number of co-morbidities. The average number of co-morbidities for our tier 4 patients is four. We initially thought that the work in our lower tier would be more preventative, but there is an average of three co-morbidities in that group and there are usually quite a lot of mental health, self-esteem and depression issues that need to be tackled. Those patients need to be aided prior to weight management.

The assumption is that, if we just help patients with weight management, they will lose weight, but there are many other things that need to be dealt with in the healthcare environment. Motivated people might do well from such providers, but there are multiple healthcare issues as well.

The Convener: I will bring in Lynne Douglas. We are running really short of time, so I need everybody to be very brief with their answers.

Dr Douglas: On that point, the diabetes improvement plan was published in 2014 but there is not yet any consistent approach to the prevention of diabetes across Scotland. The evidence around weight management services that has been submitted for your information shows that there is also no consistency in weight management services. However, there is evidence that the existing services are hugely underutilised for the secondary aim of preventing diabetes in the obese population.

With primary care modernisation, there is a huge opportunity—given what we know about what is effective from the evidence base around tiered work management and from recent evidence around the targeted prevention of type 2 diabetes—to raise the bar in the current services and deliver a consistent service level that would achieve the outcomes relating to what GPs can refer into.

Miles Briggs: I have a tiny supplementary question. To what extent is there a divide between urban and rural provision? Some committee members went up to Aviemore to look at the community sports hub there. The hub is partly about building facilities that overlap, so that people can put their kids into a group and then attend their weight management group, which starts 15 minutes later. Is such work going on across Scotland?

Dr Douglas: In Midlothian, there is co-location of the new school and the new health centre as a hub, which is exactly that type of intervention. The locality planning groups are looking at that in relation to their population needs, so that they can co-locate services and integrate them to achieve maximum benefit with the resources that they have.

Emma Harper: We are having this discussion today and there is a Government consultation on the issue going on right now—I am sure that you will all feed into that consultation—but it sounds as though there is consensus that there is a bit of disparity out there in whether people are joined up. I am hearing about allotments locally—local people planting vegetables, engaging weans and planting apple trees. There is stuff going on out there that will all be brought together.

Last week, at the cross-party group on diabetes, we heard about the fixing dad programme whereby a family intervention engaged with a man who lost 7 stones and is now off all his diabetes meds. There is stuff going on out there. I am sure that the consultation will feed into that, but I would like your brief thoughts on the consultation and the process.

12:00

Alison Diamond: The consultation is due to close at the end of January, and there have been consultation events to get more people to respond to it. The Scottish diabetes group is trying to make sure that we marry up well with the consultation. That is why we have involved a lot of obesity and public health people in the diabetes prevention sub-group, which is formally a part of the Scottish diabetes group and was just diabetes people. Once the consultation report is published and we see the recommendations, we will make sure that the diabetes prevention framework sits well with that. A significant amount of money is being pledged to implement the report's recommendations, and a big thing was to make sure that diabetes prevention is included from pregnancy right through. The consultation will be finished at the end of January, and we will then move as quickly as possible with that work.

A lot of good work is being done—as Miles Briggs mentioned, a lot of great work is being done in rural Argyle and Bute, and NHS Ayrshire and Arran is doing some great work. I have been working with those health boards, which are trying to look at different issues in different areas and trying to provide evidence-based approaches that are based on what is going to work rather than a one-size-fits-all model.

Pete Ritchie: As the food coalition, we would always emphasise the need to focus on the environment and how we can make it easier for people to eat more vegetables and less sugar. We need to make it easier for people by changing the environment and not concentrate too much on educating individuals. We have done a lot of that and we now need to change the environment.

Dr Douglas: From our perspective, it is very much about the obesogenic environment and tackling the inequalities that lead to obesity and type 2 diabetes. It is about making sure, from a sustainability and value perspective, that the resources that are pledged in "A Healthier Future" are not only an evidence-based intervention of weight management services but a targeted intervention for the prevention of diabetes.

Heather Peace: The Food Standards Scotland board will respond to the consultation. It is for the board to do that. However, I will make the point that the content of the consultation has relied quite a lot on evidence from Food Standards Scotland around diet and other aspects. We are very pleased that the food environment has been a strong part of the consultation, for exactly the reasons that others have stated. To a large extent, that is in line with the proposals that Food Standards Scotland made to the Scottish ministers back in January 2016.

The Convener: Thanks. The evidence on prevention suggests that the issues are around age, gender, genes and ethnicity as well as weight management. Sadly, we cannot do much about the ageing process—I really wish that we could—and there is a limited impact that we can have on gender, genetics and ethnicity. Clearly, therefore, weight management is the focus. I am sure that we all hope to see, out of the two strategies that are coming forward, new, significant, practical actions that will address that, because the impact of having a really proactive preventative agenda is potentially massive not only for the health and social care budget in Scotland but for the health and wellbeing of people.

Thank you very much for your attendance today.

12:03

Meeting continued in private until 12:25.

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