



Food, Diet and Obesity Committee

Corrected oral evidence: Food, diet and obesity

Thursday 29 February 2024

10.35 am

Watch the meeting

Members present: Baroness Walmsley (The Chair); Baroness Boycott; Lord Brooke of Alverthorpe; Baroness Browning; The Earl of Caithness; Lord Colgrain; Baroness Goudie; Baroness Jenkin of Kennington; Lord Krebs; Lord McColl of Dulwich; Baroness Pitkeathley; Baroness Ritchie of Downpatrick; Baroness Suttie.

Evidence Session No. 3

Heard in Public

Questions 24 - 37

Witnesses

[I](#): Professor Janet Cade, Professor of Nutritional Epidemiology & Public Health, University of Leeds; Rob Percival, Head of Food Policy, Soil Association; Professor Eric Robinson, Professor of Psychology & Public Health, University of Liverpool.

Examination of witnesses

Professor Janet Cade, Rob Percival and Professor Eric Robinson.

Q24 The Chair: Good morning and welcome to this public meeting of the House of Lords Committee on Food, Diet and Obesity. Today we are holding the third evidence session of the committee's inquiry exploring the role of foods such as ultra-processed foods and foods high in fat, salt and sugar in a healthy diet and in tackling obesity. The committee will continue taking oral evidence over the next few weeks and months to inform its detailed report, which will be published later in the year. We have also published a call for written evidence which is open until 7 April and can be accessed on the committee website. We welcome contributions on that score.

Today, we will hear from Professor Janet Cade, head of the nutritional epidemiology group at the University of Leeds; Rob Percival, head of food policy at the Soil Association; and Professor Eric Robinson, reader in psychology at the University of Liverpool. You are all very welcome and we very much look forward to your evidence. Could you briefly introduce yourselves at the beginning of your answers to the first question? Today's meeting is being broadcast and a written transcript will be taken for subsequent publication. It will be sent to you to check for accuracy before it is published. I refer to the list of Members' interests, including my own, as published on the committee's website and as set out in our first evidence session on 8 February.

What is a healthy diet and how does poor diet contribute to rates of obesity and other kinds of ill health?

Professor Janet Cade: We already have some good, clear guidance through the *Eatwell Guide*, which tells us roughly the balance of foods—starchy foods, oils, protein, et cetera—that we should be consuming. If we ate according to that guide, that would be beneficial for the climate and give us an extra 18 years of healthy life.

A poor diet tends to be characterised by energy imbalance, with high energy intakes and energy-dense, nutrient-poor foods with a potentially lower fibre intake. That balance between energy and fibre is really important when trying to improve the quality of diets. On average, with excess energy intake, overweight and obese children and adults consume an extra 100 to 500 calories a day. You might assume that, to reduce that, you would reduce your energy intake. Another important point is deprivation. In particular, women living in more deprived areas consume more excess calories, which has a knock-on effect on ill health throughout their lives.

The Chair: Would you like to say anything about your background further to what I said when I introduced you?

Professor Janet Cade: Yes. I have worked in nutritional epidemiology for almost 40 years at the University of Leeds. I run a small WHO collaborating centre in nutritional epidemiology, and I have run a very

large cohort study for 20-odd years. I have a possible conflict in that I also support a university spinout company called Dietary Assessment Ltd, which supports the measurement of food and nutrient intake through a tool called myfood24.¹

The Chair: Thank you. That is very helpful. Professor Robinson, please give us any further background information that you would like to add and then tell us what you think about a healthy diet.

Professor Eric Robinson: I am a scientist in the Institute of Population Health at the University of Liverpool. My expertise is in the drivers of what we eat—what impacts on our food choices, nutrition and obesity at a population level. Our group is also very active in public health policy, understanding what kinds of policies will improve the nation's diet and have the potential to reduce obesity.

Janet covered really well what we know to be a healthy diet. Diet is the most important contributor to obesity at the population level and, if not the leading cause of ill health across the world, almost definitely one of them.

Rob Percival: Thank you for having me. I am the head of food policy at the Soil Association, a charity that works across the food system to promote healthy and sustainable food and farming. I have been with the organisation for the past 10 years and, for the past five years, ultra-processed foods have been a particular focus for us. We have been working in two respects. We are convening behind the scenes, bringing together scientists and policymakers working in this space with UK NGOs and public health bodies to try to reach an understanding of the scientific common ground and the way that narratives around ultra-processing are being framed by the media and the food industry. We are also campaigning on this issue and calling for a government response.

I also have a foot—or a toe—in the academic world. I have contributed to a number of projects, most recently as co-author of a paper conceptualising the social, biological and cultural drivers of the ultra-processed food system. At the moment, I am working with academics out of Deakin University in Australia to understand the common food system drivers of industrial livestock and ultra-processing. I come at this

¹ Note from witness: I referred in oral evidence to my role as Director and Founder of Dietary Assessment Ltd which support the diet tracking tool myfood24. I can also declare that I chair the British Nutrition Foundation Advisory Committee. Also I run a small WHO Collaborating Centre in Nutritional Epidemiology.

² Note from witness: I work for the Soil Association, the UK's leading membership charity campaigning for healthy and humane food, farming and land-use. The Soil Association is funded by a mixture of philanthropic, commercial, government, and public funds, including trusts and foundations, member donations and government grants, corporate partnerships and income from its certification subsidiary, which certifies organic food, farming, textiles, beauty and sustainable forestry. I am a trustee of Sustain, the alliance for better food and farming, and chair of trustees for First Steps Nutrition Trust.

conversation from a food systems perspective. My expertise is in food politics, particularly ultra-processing.²

What is a healthy diet? That is a great question to start with. At the Soil Association, we believe that a healthy diet should be based on a diverse balance of nourishing foods. I have brought some props—vegetables, as that is what food is. Often when answering this question we get tied down into a narrative around fibre, fats, calories and carbs. We talk about nutrients instead of nourishment. That can be scientifically accurate—everything that has been said is completely accurate—but that nutrient-focused narrative has also been spun by the food industry into quite a harmful policy paradigm. Instead of focusing on foods, we are fretting about nutrients of concern and nutrients of benefit, seeking to modify what is essentially an industrialised food supply in ways that ultimately will not benefit our health.

The good work of nutrition scientists who have revealed the complexity of food and the necessity of a healthy dietary pattern is being twisted into a policy paradigm where we think that if we just throw in some fibre over there and squeeze out a few calories over here, we might be healthy. It is not working. We have been doing it for several decades now. Voluntary reformulation programs do not fundamentally shift the balance of diets or the food system. This is leading us ever deeper into an epidemic of dietary ill health.

I say this with great respect, but there is a real risk that this committee will spend the next couple of months completely wasting its time. You have to understand that, over the years, this inquiry has been formed over and over again, with another committee and another conversation about diet and health. We have gone round and round in circles and have got absolutely nowhere. That is partly because we have not got beyond this reductive, nutrient-focused paradigm to think about the bigger picture—dietary patterns, the ecological and social determinants of health and the food systems in which all this is embedded.

So my invitation to you is to think not just about the relation of diet to health but about why all these past inquiries have failed. What are you going to do that is different from all these previous committees? If you are to arrive at something significantly different, the answer lies in the science of ultra-processing. That science has to be very delicately understood and carefully interpreted, but there is a real opportunity for you to put forward something genuinely ground-breaking and different that could help to turn the tide on the dietary ill health crisis that we face in the UK.

The Chair: Thank you very much. We hear your warning, and we will try very hard not to fall into those pitfalls. We have already been thinking about many of those issues, so I can promise you that we will consider the evidence and look very carefully at those issues.

Q25 **Baroness Browning:** I want to get clear in my mind what we have just heard from Rob. You have used the word “voluntary” a couple of times

now. So far, from what we have looked at, there has been a minimal amount of legislation that has tried to carry out a process like the smoking ban. That was incremental, but eventually it was decided that all these reports and health warnings would not work, and it ended up in legislation. Does this committee really have to abandon the word “voluntary” in this area? Should we seriously be looking at legislation?

Rob Percival: We can get down into the nitty-gritty of policy solutions as we go through, but robust mandatory regulation of the food industry and enforcement of that regulation is the only way we will turn the tide on this. As part of a broader package of policy measures, voluntary invitations to the industry to improve its product portfolio by reformulating have completely failed. They have sucked up huge amounts of policymaker time and industry attention and got us nowhere.

Professor Eric Robinson: I agree with that. I think everybody in public health would agree that the voluntary measures have not worked. If we are serious about addressing obesity and inequalities in poor health in the UK, we desperately need legislation, and probably quite a lot of it.

Professor Janet Cade: I also agree with that. The OHID calorie reduction programme, which has been running for the last few years, has shown small impacts. It published a report this month, and I think only garlic bread had been successfully reduced in energy terms to meet the calorie guidelines. There is still a lot more to do, such as regulating marketing. However, we should not throw the baby out with the bathwater in voluntary working with the food industry, because otherwise we might lose a lot. Maybe we need both.

Q26 **Baroness Boycott:** I declare my interests as set out in the register of this committee. Professor Cade, you mentioned the Eatwell plate, which has come in for a lot of stinging criticism recently. People are saying that it was designed partly with the industry in mind. I sit on the Food Foundation, so I know that 30% of people in the country cannot afford it anyway. It seems to have been a gold standard for a long time, despite growing knowledge on the other side. Do you still think it is a useful tool.

Professor Janet Cade: I think it is a useful tool. At least it is clear. My problem with the UPF definition is that it is very nebulous. No two experts will rate the same suite of foods in the same way. At least we know what we are trying to do with the Eatwell plate. Yes, cost is a big problem for many consumers, but no doubt the cabbage that Rob brought along was pretty cheap. What did you pay for that?

Rob Percival: This is organic, so it is elevated in price, but it was fairly cheap.

Professor Janet Cade: So there are things, but the problem is then that you need to know what to do with a cabbage.

Baroness Boycott: I know. That is another problem. Rob, what is your view of the Eatwell plate?

Rob Percival: It is a useful tool, but we need to update it with Nova in mind and put much greater emphasis on whole and minimally processed foods. We need to start integrating this language, recognising that this is implicit in the guide. The guide already says that you should eat lots of fruit, veg, pulses, wholegrains and so on, but there is now a rationale for making it explicit that we are talking about less highly processed foods.

Q27 **Baroness Pitkeathley:** Some of my colleagues around the table know a lot about this issue, but I confess that I do not. Can you give me a lay person's definition of what an ultra-processed food is? How useful is the term? What is the difference between ultra-processed food and foods high in fat, sugar and salts? Is it useful to have a distinction?

Professor Eric Robinson: Starting with HFSS is a sensible way to explain how UPF differs. HFSS is a category of food that is identified using a formula that balances its amounts of fat, salt and sugar against what we would describe as healthier things, such as fruit and veg content, fibre and protein. You can use that formula to say that one food product would be classed as HFSS and another would not. Generally speaking, it is a pretty good way of using what we know about nutrition to identify relatively healthy foods and foods that you should not eat too much of.

UPF does not have a formula like that. The definition is not based on macronutrients or salt, fat, sugar and so on, but largely on whether a food has been industrially produced. A lot of industrially produced foods that are UPF would be classed as HFSS. There is significant overlap, and lots of the foods that we think of as junk food would fall into both the HFSS and the UPF categories. However, the distinction is important, because a number of foods that are UPF would not be classed as HFSS. That is the difference.

Baroness Pitkeathley: Could you give a specific example?

Professor Eric Robinson: I am sure you will hear lots of these through the inquiry, but supermarket bread, whether wholemeal or white, would be UPF but not HFSS. We could come up with lots of other examples.

Professor Janet Cade: Also, minimally processed foods could be HFSS, such as peanut butter and meats. There is a lot of overlap, but it is not complete, which makes the specificity of the research on both these things difficult to tease apart.

As I was coming here, I was wondering whether we could think about the whole concept as a violin. UPF is like a violin without strings on it—you think you know what you are looking at, but until you put the strings on it you do not know what it is. Is it the processing? Is it the additives? Is it the nutrients? If you put the wrong set of strings on it, like a viola set or whatever, you will not get the right answer.

I do not know whether that helps, but there has been a lot of conversation—"It is like this", "It is like that", "Is it the same or isn't it?" There is a lot of overlap, but there are differences too. Eric made the point that we can define HFSS foods—foods high in fat, salt and sugar; It

is clear through the nutrient profile model how to do that. It is much less clear how to do that for UPF, which was never designed for consumer use.

Professor Eric Robinson: I have given definitions from the scientific literature for those two categories of food. Those are the scientific definitions of HFSS and UPF that have been used in dozens of studies.

Rob Percival: Chris and Henry gave a very cogent overview last week of the origins of the Nova system in Brazil. A long technical definition is often distilled in different ways when trying to communicate with the public. It was developed as a tool for epidemiology and has been applied across a growing number of studies. The researchers working in this space have managed to apply it very consistently. When trained individuals running studies use Nova to apply food product categorisation, there is a less than 5% disagreement between them. The core hypothesis that is being tested, which is embodied in Nova, is that, when these foods come to dominate the diet, they drive poor health outcomes for reasons that extend beyond nutrient composition.

That is the key point. We can look at fat, sugar and salt, nutrients of concern and diet quality—all that remains entirely valid and important—but the literature seems to be suggesting, quite robustly and consistently, that poor health outcomes are being driven for reasons that we are yet to fully understand but which extend beyond diet quality and nutrients of concern.

The tool is being used helpfully in science, but the debate playing out around the world is whether that science is robust enough to legitimise a policy response. There is a bit of a split here. In Belgium, France, Canada, Israel and Australia and across Latin America, senior nutrition teams and public health authorities are saying that the evidence is strong enough to legitimise a policy response. However, in the Nordic countries, the UK and the US, there is a bit more caution; they are saying, “We’re not there yet”.

Whether the evidence is strong enough to warrant a policy response depends on what sort of policy response you have in mind, and we are seeing very different responses enacted around the world in different national contexts. Brazil famously updated its dietary guidelines to incorporate Nova alongside traditional nutrient approaches. It is a brilliant document and I encourage the committee to read it. It contains quite a blunt direction to avoid ultra-processed foods, and this was adopted in a national context in which penetration of UPF was still fairly low and existing indigenous food cultures were being rapidly obliterated by this tidal wave of industrial food from the global North. That guidance was written to try to protect what they still had. It made sense in the national context in Brazil.

In France, where the food system has been more industrialised, there is still a vibrant regional cuisine, set of food cultures and so on. The ambition written into its public health strategy was to rebalance the diet

away from ultra-processed foods—to have 20% less in the diet. There was no ambition to avoid them altogether but to rebalance the diet back towards this stuff. Similarly, the Public Health Association of Australia recently published a set of recommendations on employing Nova alongside nutrient profiling to inform a set of policies on nutrients and degrees of processing in such a way as to shift the balance of the diet back towards fresh and minimally processed foods.

Very different types of response are being enacted all around the world, but what is coming through very strongly is that Nova is useful beyond science and in policy. So the conversation is about what types of policy are suitable in a UK context.

Q28 Lord Brooke of Alverthorpe: I declare my interests as shown on the website. If we are not to waste our time in this committee, tell us what legislation is required.

Rob Percival: That is a big question. I can answer it if you like.

Lord Brooke of Alverthorpe: You have given us a big challenge.

Rob Percival: Analysis has been done over the past couple of years by the MRC Epidemiology Unit in Cambridge, led by Dolly van Tulleken, looking at three decades of failed obesity strategies. There have been 689 policies introduced by government—

Lord Brooke of Alverthorpe: The answer, please. What do we do?

Rob Percival: These strategies have failed for three broad reasons: they have focused on individual behaviour change, putting the onus on individuals and making them the answer; there has been voluntary regulation instead of mandatory regulation and the industry has obviously failed to step up to the challenge; and they have not been implemented—so there is an implementation challenge.

There is no silver bullet, and I will not list off pieces of legislation, but if you had a more cohesive approach focused on mandatory regulation, shifting the balance of power and putting the onus on industry to change rather than the individual, there would be a role for legislation and regulation in that. Then we would see real change. We can unpack what some of the details look like as we go, but that is the broad picture.

Professor Janet Cade: A report by the activists Bite Back recently suggested that food manufacturers should aim to sell more healthy products, because they have a big portfolio, some of which is less healthy and some of which is healthier, so they could switch their marketing towards those healthier options, start being honest about what they have been doing, and stop making misleading claims about the environment and things like that. A very recent annual report from Nestlé could not be used to show what progress it had made. Things are not transparent enough in the food industry. Maybe that is one way in which we can start to make changes.

Professor Eric Robinson: What policies or legislation will tackle obesity and reduce diet-related disease? We could do lots of things at a national level pretty much immediately, as there is already lots of evidence to support them. Some smart countries are already doing these things. We can use the HFSS model that the UK developed. Lots of other countries have started using that model to identify unhealthy food, because it is so good. Our problem is that we have the model but do not do anything with it. We could say, "Here's the unhealthy food".

I can give you three things that we could do. We could introduce more fiscal policy so that it is more expensive for the food industry to sell these unhealthy foods. If it passed that cost on to the consumer, which it may sometimes do, it would give the consumer a small incentive to avoid them. We could also have far more comprehensive advertisement bans on unhealthy food using the HFSS model—not just at a certain time of day but across the day, for adults and children and whether you are watching something on TV or online or walking around in the real world.

We could also put on front-of-package warning labels about HFSS. Other countries are doing this, but we do not have legislation for a mandatory front-of-pack nutritional guide. There is some voluntary traffic-light labelling, but coverage is not consistent and there is no enforcement, so we do not know to what extent the traffic-light label is accurate. It could be misleading at times, because nobody is watching.

Legislation and policies are all very good, sensible ideas, but what is critical for them to work is that they are actively enforced. Based on recent policy research, it transpires that we cannot trust the food industry to follow legislation. We are one of the teams evaluating the national calorie labelling policy passed a couple of years ago. When we sent researchers across the country, we found that a number of businesses just do not follow the legislation. There are no labels when there should be, and when there are they are often put on in such a way as to compromise the whole point of them, because they are so small that you cannot really see them.

Another good recent example is the sensible legislation on the placement of unhealthy food in supermarkets. If you go into supermarkets, you will quickly see that, after several months of the policy being in place, compliance is slack. Lots of food is being sold close to checkouts.

There are lots of things we can do with the knowledge that we have already. We need to make sure that, if we do them, we do them properly and they are enforced.

- Q29 **Lord McColl of Dulwich:** The right kind of fat entering the duodenum releases the hormone CCK, which inhibits the emptying of the stomach so that you feel full early on and therefore do not eat so much. Bearing that in mind, what do you think of the Canadian study published in 2020 which studied 21,000 children and found that those fed on whole milk from an early age had much less obesity than those who were not so fed?

Professor Janet Cade: I am not familiar with that study, but it does not surprise me. Fats have potentially had a bad press due to American political history. We should do anything we can to make sure that our children are appropriately nourished with adequate growth, as they are a vulnerable group. There is nothing wrong with whole milk.

Lord McColl of Dulwich: Thank you. Of course, it was the food industry that demonised it in the first place in the 1950s and 1960s.

The Chair: Yes, indeed.

Q30 **Lord Krebs:** I declare my interests as recorded in the register. I want to ask about evidence, particularly the evidence that supports the contention that either UPF or HFSS or both have negative health outcomes. In answering, perhaps you could also address a couple of points that have arisen previously. Last week, Chris van Tulleken told us in no uncertain terms that the appropriate way to analyse the health risks of food intake is through dietary patterns, not individual components like HFSS or UPF. You might want to consider that.

Also, one of the problems with epidemiological analyses, as I am sure you are all more familiar with than I am, is that of confounding factors. A study published today in the *BMJ* had a lot of press coverage in the *Guardian* and the *Times*. It says: “ultra-processed foods displace more nutritious foods in the diet such as fruit, vegetables, legumes, nuts and seeds”. If we observe adverse health outcomes with UPF, how do we know it is not this displacement factor rather than the UPF itself?

Professor Janet Cade: Not all but most of our evidence on UPF comes from large-scale, long-term cohort studies that—this is an important point—were never designed to look at UPF. Those studies measure food intake over time usually through something called a food frequency questionnaire, which has a conglomerate “bread”. It might be “white bread”, if it is detailed enough, but you would never know whether it was a home-baked loaf of white bread or a heavily processed one.

To create this UPF score, researchers have had to make lots of assumptions about what percentage of each of those questions were UPF. There is a lot of overlap with the HFSS definition, and we are seeing systematic reviews saying that UPFs are dreadful, but I would like to see them compared side by side: is it worse with the UPF definitions, as far as we can go, than with HFSS? I do not think we know that, because the studies were never designed to look at UPF. They were designed to look at nutrients and, as you said, we know the definition for high fat, salt and sugar.

A recent systematic review on UPF and overweight showed that studies tended not to adjust for total energy. Where they did adjust, the effect size was dramatically reduced, often becoming non-significant. This is one of the confounders that you are talking about potentially implying that the energy component is having the most effect.

The underlying food composition tables that have been used were not set up for UPF. If we want to disentangle what is going on, we need new data to be generated that measures intakes of branded products so that we can see what the differences are. There are now tools such as my own, myfood24—I declared that interest—where we have a large branded food composition table of over 127,000 UK foods. There is a lot more today than ever in the past. We can do that, but we have not yet.

Professor Eric Robinson: With HFSS, you have the formula that we talked about earlier which is based on fat, salt and sugar and more healthy things. It was based on very convincing evidence from observational studies and randomised controlled trials that tell us that the parts of that formula matter. If you reduce the amount of sugar that somebody is eating, for example, if they are eating a lot, they tend to lose weight. Observational studies show that people who eat a lot of salt have higher blood pressure, and randomised controlled trials show that if you reduce salt, people's blood pressure reduces. So the formula for how you identify HFSS has evidence from a range of different sources.

There have been studies looking at HFSS as a dietary pattern that say, "This person's diet is quite dominated by HFSS. This person's diet has relatively few HFSS products in it". That dietary pattern of high HFSS in observational studies is associated with ill health, so they are more likely to develop overweight and so on. So the formula has evidence and has been proven to be valid.

Janet pointed to observational studies which show that high consumption of UPF as a dietary pattern is predictive of worse health. One of the differences is that we do not really know why that association exists. There are challenges with the methods and a lack of randomised controlled trials that help you to work out what is going on and why, and whether there is causal evidence that something about processing is harming health.

There is one randomised controlled trial that everybody talks about, which I am sure you will hear about during the inquiry. If there is only one randomised controlled trial that everybody talks about, you have a problem, because that is not very much evidence. What is not always appreciated about that trial is that it had some method problems that do not allow you to separate out processing from what HFSS effectively defines. There were nutritional differences between the foods served to participants, so it is plausible that the results of that experiment may well be explained by macronutrient differences between the ultra-processed and the less processed conditions of the experiment.

The Chair: We are hoping to hear from the leader of that trial.

Professor Eric Robinson: He wrote in the paper about its limitations. I do not deny that there is a clear pattern of results that a high-UPF diet is associated with worse health. There are lots of reasons to drill down and do more research to understand that, but I struggle a little with what that means for policy, because it is not clear which ultra-processed foods are

harmful and why. We really need more randomised control trials and studies that compare HFSS to UPF directly and ask whether UPF tells us more.

Rob Percival: It is worth emphasising that the Nova system is fairly new. It has been employed in only the past 10 to 15 years, and this evidence is coming through thick and fast. It is building rapidly, and more sophisticated methods for measuring intake are already being developed. There are more randomised controlled trials in the pipeline.

On Kevin Hall's RCT, he matched the two diets for presented calories, energy density, macronutrients, sugar, salt and fibre. There is a conversation to be had around total sugars versus free sugars and types of fibre and so on, but it was a pretty good study. The only reason it is the only one we talk about is because this is a new area of research. There are other RCTs in the pipeline.

The *British Medical Journal* today published an umbrella review of 45 meta-analyses encompassing almost 10 million people, and found a direct association between ultra-processed diets and multiple health outcomes. There is a really important conversation to have around the quality of the evidence, and my colleagues are quite right to say that it is stronger in some areas than in others. This study found that the quality of evidence was strong for all-cause mortality, obesity and type 2 diabetes, as measured by the GRADE system. There is still lots that we need to learn about the underlying mechanisms, as multiple underlying mechanisms are probably contributing to these poor health outcomes.

However, the hypothesis being tested is that ultra-processed diets contribute to poor health for reasons that extend beyond nutrient composition. Nutrients of concern—fat, sugar and salt—and diet quality have been controlled for in various of these studies, and there is still a robust and recurring signal in the data which suggests that more is going on.

To bring to life the idea that there is more than just nutrients at stake, I find it helpful to think about infant diets and diets in the early years. Our children, infants and babies are growing up from a very young age on an ultra-processed diet. I hope that in a future session you will hear from the First Steps Nutrition Trust, which is the real expert on this and published a brilliant report on it last year. Essentially, babies and infants are being raised on a diet that includes pouches, commercial baby milks, commercial formula and so on, various snack foods and commercial baby foods.

Some of these are high in free sugars, but what they are doing is much more complicated. Public health guidelines for the first two years say that children need to be exposed to a variety of textures and flavours—real food. They need to learn how to hold foods in their hand, manipulate them in their mouth, how to develop an appreciation for bitter flavours and so on. They are growing up on a diet that is universally soft and sweet, where certain physiological responses are encouraged and certain

behavioural patterns are entrenched, such as a snacking culture. Their whole relationship with food is being disrupted, and this is all by factors that lie beyond the nutrient composition of these foods.

It is a similar picture across the population for different age groups. We need to look beyond nutrients if we are to understand what is going on.

Lord Krebs: I think you are rather more confident, Rob, about the results of the BMJ study than the authors themselves are. Just to quote: "we graded 9%"—one in 11—"of the pooled analyses as providing convincing evidence", and it says later that it cannot tell whether this because of higher UPF or lower fruit, vegetables, nuts and seeds.

Rob Percival: I was quoting the BMJ when I said the quality of evidence.

Lord Krebs: I am reading from the BMJ.

Rob Percival: Yes, I am trying to say that our comments are not in disagreement. The quality of evidence was found to be strong according to the grade system for all-cause mortality, obesity and type 2 diabetes, but you are quite right—I insinuated this as I went—that the quality of evidence across the rest of the studies was judged to be lower. There is much more that we need to learn and much more to disentangle, but there is really robust evidence coming through in this very young and still emerging body of research into ultra-processing.

The Chair: Thank you. We clearly have a challenge on this committee.

Q31 **Baroness Goudie:** I cannot tell you how fascinating I have found your evidence so far. I will be sharing this question with my colleague Lord Colgrain, and I will ask the first part. How influential is the food industry in driving poor health outcomes and, in the wider policy-making process, which specific elements of the industry are most influential? I mean that at all points, including lobbying, advertising—in every way.

Professor Eric Robinson: The food industry could not be any more influential in driving health outcomes. We know that diet is one of the leading causes of ill health and the main contributor to obesity. Consumers are completely reliant on the food industry when they are out and about, and often when eating at home as well. The food industry determines to a large part what we eat and shapes our food environment.

Everybody in obesity public health research kind of agrees that we have a problem now and not 40 years ago because the food environment has changed. So we need to ask who is shaping the food environment, and it is the food industry. It clearly has a very significant impact on health. I alluded in some of my earlier comments to the extent to which the food industry has a role or responsibility. It clearly has a moral responsibility to be doing something, but it is not doing anywhere near enough. That is why we need legislation. Unfortunately, that legislation needs to be driven by public health and not the food industry, because we have learned time and again that the food industry's involvement in legislation or in voluntary agreements can slow down progress.

I gave the example earlier of calorie labelling as a new policy. It was first passed into law in the US in 2008 in New York. Then there was a policy and legislation that could be transferred to the UK. The UK responsibility deal was a food industry partnership; voluntary pledges were made, including putting calorie labels on menus. That really slowed down progress. Come 2018, we did a study and found out that almost no big food companies were putting calorie labels on menus, even though they had said that they would. We then needed legislation, more than 10 years later, to finally get the policy through. Food industry involvement slows down action that matters. The reality is that if you slow down making changes, you are adding to diet-related ill health, disease and death. So we desperately need to regulate and take some control over the food industry.

Professor Janet Cade: Retailers, not just the food industry, also have a big responsibility for where products are displayed and so on. Reformulation has a part to play, and that would be done through the food industry. Even relatively small reductions can help individuals to shift into the lower body mass index category. The industry is central to our success in this area.

Rob Percival: Obesity is a commerciogenic disease that is caused by the food industry, which has a pernicious effect on public health and needs to be more tightly regulated.

I want to add a trail of thought on conflicts of interest, which have been brought repeatedly in the context of UPF. It is a really thorny, delicate issue to try to discuss. The Soil Association raised concerns when the Scientific Advisory Committee on Nutrition published its review last year about the industry ties that were present.

In our comment, we highlighted—this is worth sharing—that: “SACN has sixteen members. One is a paid consultant working for Cargill, Tate & Lyle, and CBC Israel (a manufacturer ... of fizzy drinks such as Coca-Cola and Sprite); two are in receipt of funding from the meat and dairy industry; one is a shareholder in Sainsbury’s; and five are members of the American Society of Nutrition, which is funded by Mars, Nestlé, and Mondelez. Among SACN’s members is the Chair of International Life Sciences Institute (ILSI) Europe, a body that receives funding from ... Barilla, Cargill, Danone, General Mills, Mondelez, and PepsiCo; and two individuals with financial relationships with the British Nutrition Foundation, an organisation funded by British Sugar, Cargill, Coca Cola, Danone, Greggs, Kellogg, KP Snacks, Mars, McDonald’s, Mondelez, Nestlé, PepsiCo, Tate & Lyle, and Tesco. Two SACN members have been funded by Danone, one of the largest ultra-processed food companies in the world ... and another is a former employee of Unilever, with current shares in the company worth ‘more than £5000’”.

The Chair: I put on record that we will be inviting the SACN to give its answer to that criticism later in our inquiry.

Rob Percival: Great. I would like to briefly unpack this, because this line of thought is often interpreted as a critique of the individual integrity of those scientists, as though we are saying that they are corrupt by working for the food industry. That is not what we are saying.

While I am on the subject of conflicts of interest, it is worth sharing that both my colleagues here have a relationship with the British Nutrition Foundation and sit on advisory committees. In raising that, it might sound like I am insinuating that they are doing something dishonest, but that is not my point. My point is that the food industry gains a social licence to operate and to influence policy through bodies like the British Nutrition Foundation. Last year, Coca Cola sponsored its healthy eating week. The British Nutrition Foundation runs a food education programme in schools called Food—A Fact of Life, which does good work, but sitting behind that are bodies such as Mars, Pepsi and so on, which fund the British Nutrition Foundation.

The Chair: I think we are getting the picture. It is time that I give your colleagues the right of reply to what you have just said.

Professor Janet Cade: Yes, I chair an advisory committee for the British Nutrition Foundation, but I have never received any money from the food industry, nor have many of SACN's members. What slightly annoys me is that the idea that it is just conflict relating to the food industry, but we know that everyone has bias of one sort or another. The people you were speaking to last week have big interests in publishing, media, restaurateurs, et cetera. It is all part of that conflict. I do think it is unfair that it is just us scientists, who are doing our best to communicate with the industry and make those changes.

The Chair: Transparency is the point.

Professor Janet Cade: Indeed, it is.

Professor Eric Robinson: I am not a member of the British Nutrition Foundation committee any more, so that is not correct. I was previously. Ten years ago, I was involved in a couple of projects that were funded by the food industry, but I have never had any direct financial benefit from working with the food industry. Actually, I think that the food industry is the problem but, unfortunately, a lot of good scientists have links to the food industry through research funding, and a lot of good science is funded through the food industry. What do you do: do you ignore the good science or not?

I am worried that the whole ultra-processed food controversy distracts from the evidence we already have on HFSS, muddies the policy water and delays us doing the things that we need to do. As a scientist, I would say that we should do more research on ultra-processed food and get to the bottom of it. Our group has started doing that, because we think it is interesting and important, but it is a very simple narrative to say that the only people who question ultra-processed food as a concept are people who have food industry links. I speak to loads of colleagues who do not

have the same view that everybody else seems to have in the public sphere about there being great certainty about ultra-processed food itself, the level of processing being the problem. That is important to think about.

The Chair: I think you have all demonstrated that this is a very complex area and that transparency should be the watchword.

Rob Percival: Just to reiterate, the critique I was voicing was not that individual scientists are biased or corrupted; it is that the food industry gains a licence to influence policy in pernicious ways through the smokescreen provided by bodies like the British Nutrition Foundation. It is trading on the integrity of the scientists who work with it. We need to redraw the boundaries and take a slightly different approach to conflicts of interest if we are to reconfigure the power dynamics in the system.

The Chair: Thank you. You have made that point clearly.

Q32 **Baroness Boycott:** I am sorry, but this question is for you again, Professor Cade. I have been looking at who funds the British Nutrition Foundation. It is Nestlé, Mondelez and Coca-Cola, none of which produce any decent food at all. Coca-Cola is absolutely zero use to the world and produces plastic. What does the food industry get out of funding you? If it is not getting some kind of influence over supermarkets or Governments, why is it doing this? Is it for its shareholders? We know that the head of Danone resigned because he wanted to change the policy in Danone. He was kicked out, because his shareholders said, "We'll lose money". I am puzzled. I am in no way impugning your integrity, but the food industry is involved in so many of these reports. What is it gaining?

The Chair: Is it the equivalent of greenwashing?

Professor Janet Cade: Probably, yes. I think so.

Baroness Boycott: Why do you do it if it is greenwashing? You are a very eminent scientist. I sit on the board of the Food Foundation. We take no money from the food industry.

Professor Janet Cade: I have not taken any money. I just said that.

Baroness Boycott: But you are in the sense of your report and the secretariat. Baroness Jenkin and I sat on an obesity committee once. It was only on the last session that we found out that it was sponsored by Danone, so we all walked out, because we felt that if we put this forward we were in some way saying that Danone was brilliantly trying to tackle the problem, which it is not, clearly. What does the food industry get out of having you? It seems to me that it probably gets quite a lot, because you are a very eminent, well-respected figure in your field. Do you therefore really, hand on your heart, feel that this is a good thing and a good way to examine what is now the biggest health problem in the world?

Professor Janet Cade: Perhaps I am naive, but my view is that we should talk to each other in some way. The British Nutrition Foundation is not the food industry. It might be funded by it, but it is reviewing the evidence, et cetera. It is challenging for it, do not get me wrong, but I am not a member.

The Chair: I think you have made your point, Baroness Boycott.

Baroness Boycott: Can I make one small point?

The Chair: I really think you should not.

Q33 **Lord Brooke of Alverthorpe:** I think this shows how we can so easily get distracted by dealing with funding. My question is about finding solutions. Could each of you reflect on what has happened this morning and then write to us, each giving us three major legislative changes that you think would tackle obesity?

The Chair: I am sure they will. I am grateful. I am glad that we have thrashed all that out. It is a very good thing that we have.

Q34 **Lord Colgrain:** Also, to state the obvious, every person in this room is a shareholder in a food company by virtue of all our pension funds, so there is no point making arbitrary distinctions.

All three of you have already touched on this question in part. To what extent should the food industry be held responsible, and indeed culpable, when it comes to tackling or not tackling obesity?

Professor Janet Cade: It is central to our room to move for solutions. We cannot go backwards; the genie is out of the bottle. Saying that we should not consume all these ultra-processed foods is not necessarily very helpful and disadvantages those in the most socioeconomically disadvantaged groups, because those foods tend to be cheaper products. We need to add some weight to make changes happen more quickly. There is no one magic bullet answer, so the role and responsibility of the food industry is huge, and we have to work together to get solutions. That is my view.

Professor Eric Robinson: I touched earlier on some of the things that I thought were particularly important. As a country, we have risen to some public health challenges. Smoking is a really good example. Not that long

³ Note from witness: The Committee also asked for three major legislative changes that could tackle obesity. Here are my suggestions:

- If the voluntary calorie reduction targets are not met by 2025, provide legislation to enforce action (being careful not to disadvantage lower income groups).
- Extend the free school fruit/vegetable scheme to all primary aged children – using tax from Soft Drinks Industry Levy.
- Regulate marketing of all HFSS (not just at children)

Of course there are many other things that should go along with this, such as increasing availability, improving quality of school meals etc.

ago, the majority of the population smoked. Look at what the world looks like now and think about how many people's lives have been saved and how much ill health has been reduced. That happened only by strong regulation and lots of new policies and legislation. The tobacco industry was not involved in the decision-making process. That is really what everybody in public health thinks about obesity. There will be a time when we will have been brave enough to pass new legislation and policies and to make major inroads against obesity. We just need to get on with it. We know what we need to do, and we have lots of options.³

Rob Percival: As I said, obesity is a commerciogenic disease. The food industry has been contributing to its escalation over recent decades. The tactics through which it has done so and shaped legislation have been studied. It is a common playbook. You have heard this parallel with tobacco voiced several times. It is employing the same tactics as the fossil fuel, mining and pharmaceutical industries. Its approach has been analysed. We have got into this slightly contentious space around conflicts of interest because, in this conversation with the food industry, we are fundamentally trying to redraw the boundaries in terms of its relationship with policymakers and to rebalance the dynamic of power in the system. How you do that can be really thorny and lead you into some of this contested territory.

Very briefly, in response to Lord Brooke's question, I will write with three suggestions, but I can tell you right now the three that are at the front of my mind. The first is to enact the warning label recommendation that Chris and Henry endorsed last week, using the UK dietary recommendations. It has been shown to work, albeit in a non-UK context, in such a way as to shift diets towards more minimally processed food. Secondly, we should remove conflicts of interest from certain policy-making spaces. Again, the recommendation was put to you last week that SACN should be conflict-of-interest free within five years. Thirdly, start with infants, babies and the early years. That should be the test ground for a bold policy framework informed by Nova.

The Chair: Thank you. We will have a session on infant and child nutrition later in our deliberations. I apologise to members of the committee who might have asked supplementary questions, but we really need to move on to the final question.

Q35 **Baroness Ritchie of Downpatrick:** Moving on to current government approaches, because we have already heard about the food industry. In your opinion, how effective are current government approaches, including dietary guidelines and the nutrient profiling model, in tackling obesity and diet-related disease?

Professor Janet Cade: It is obviously too slow. Although we have some activity going on, it is not happening quickly enough. I mentioned the OHID calorie reduction programme. It was instituted with the best intentions, but progress has been slower than we had hoped. That raises the question of what we can do to make quicker progress in removing excess calories from our diets.

There has been some success with the sugar-sweetened beverage tax—the soft drinks industry levy. Apparently, more than 45,000 tonnes of sugar have been removed from soft drinks. But it needs to be equitable so that, for the consumers who would have purchased those things, the lower-calorie options need to be as cheap if not cheaper than the full-fat versions, if you like. Menu calorie labelling, as has been mentioned, is important. It might help to reduce deaths from cardiovascular disease and other things. A lot is going on. Maybe it just needs better organisation and more teeth so that the food industry has to act to improve the quality of the foods that are being produced and sold.

Professor Eric Robinson: Coverage is a really important concept or idea in the context of public health policy that is trying to change diet. The sugar-sweetened beverage levy—the sugar tax—is a very good idea based on lots of convincing evidence and is already showing benefits. However, sugar-sweetened beverages are a tiny part of the UK diet. We are getting our calories from lots of other food sources, so that policy will have an effect that is limited to the influence that sugar-sweetened beverages have on the diet. We need that policy to apply to all unhealthy food, not just drink, so that we have a far-reaching policy.

All the policies need to try to cover all the diet. The warning label idea, which we talked about earlier, is a good one: implement it on supermarket foods and on restaurant menus. These are good ideas partly because the food industry does not want warning labels on its food or its menus, so it will change and reformulate or remove products from their product range. The advertisement ban needs to be far-reaching: every time of the day and every medium of advertisement need to be covered.

There are lots of things we can do, and what we are doing at the moment is a very small start. On its own, it will not be enough to get anywhere near to substantially reducing obesity. We need to be far more ambitious.

Rob Percival: I agree with everything that has been said. I alluded to the analysis by the team in Cambridge. We know that obesity strategies previously failed because they focused on individual behaviour change instead of changing food environments, were based on voluntary measures instead of mandatory regulation, and have not been properly implemented. To that I would add that we need to focus on foods instead of a reductive nutrient narrative, which might be scientifically accurate but can be exploited by the food industry.

Finally, I emphasise that there is a public mandate for really bold regulatory action. The Government have backed down previously partly because they have been worried about a kickback from the press. There are really important policies in train that have to be enacted. The advertising and online marketing restrictions based on HFSS should be implemented, and we should see HFSS policy as complementary to action based on processing; they are not in competition. We need to get those policies over the line and recognise that there is a public mandate, as found by the national food strategy and by the citizen assemblies in the climate space. There may be voices coming out of Tufton Street and

elsewhere saying, "Don't do it", but you can be confident that if you put forward regulatory proposals, the public will be behind you.

The Chair: Would you send us that information about public attitudes?

Rob Percival: Yes.

Q36 **Baroness Jenkin of Kennington:** Can you see any reason why the Government should not promote minimally processed and whole foods as the basis of a healthy diet?

Q37 **Lord Krebs:** I wonder whether, Rob, you should have declared that the Soil Association is sponsored by the food industry, including some major food retailers.

Rob Percival: In response to Baroness Jenkin, yes, it is right to start with dietary guidelines. We should emphasise whole foods and minimally processed foods.

To answer Lord Krebs, my role is not sponsored by the food industry, but the Soil Association takes funding from organic businesses through its organic certification arm to promote agroecology and—

Lord Krebs: It is sponsored by Ocado, Waitrose and Yeo Valley, as well as a brewing company, so it is food and alcohol.

Rob Percival: In a scenario where we redrew the boundaries on conflicts of interest, there would be areas where I would not be able to have a voice. I think that is a good thing.

Lord Krebs: Since you made a big thing about SACN, I think you should make a big thing about yourself and the Soil Association.

The Chair: That is now on the public record.

Professor Janet Cade: Yes, I think minimally processed is good. IGD had a small trial with Sainsbury's, where it reduced fruit and vegetable prices to 60p in January for a couple of years with an advertising campaign. That increased purchases significantly. People need to have a chance.

Professor Eric Robinson: It depends on what food sits in the category of minimally processed foods and whole foods. A number of foods are probably already part of dietary guidelines that are in the minimally processed category as foods that are relatively healthy or okay to consume.

I would struggle with putting together the science on whether it is specifically processing, or some type of processing, that is causing ill health. I used supermarket bread as an example before, because wholemeal bread purchased from the supermarket would be consistent with dietary guidelines of eating wholegrain. Those breads would not be classed as HFSS, at least as far as I am concerned, but they would be

classed as UPF. That leaves us with a situation where we ask: what do we do?

Finally, the science is in its infancy, and we are seeing more often a new set of studies that break down specific types of UPF and say, "What happens if people eat lots of wholemeal bread, or lots of bread? Is that associated with worse health?" There are not loads of those studies, but they suggest that it is specific types of UPF, not every type of UPF. That muddies the water and makes it unclear what you do with UPF as a policy instrument, because some foods are likely to be classed as UPF that are not damaging for health. I do not doubt that people who have a dietary pattern that is rich in UPFs end up more ill than people who do not have a dietary pattern rich in UPFs. The thing I do not know is why that happens and what we do with it.

The Chair: Thank you very much indeed for outlining the challenge that the committee faces. I thank all three of you for your evidence. I hope you all feel that you have had every opportunity to stand your corner. I am sorry that some of the questions may seem a bit tough, but that is what we are here for: to discuss these difficult issues. The transcript will be sent to you for any corrections you wish to make.