UK Research and Innovation

Briefing: Could weight-loss jabs help or hinder sustainable dietary shift?

Based on an AFN Network+ webinar, held 24.07.25

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This briefing is based on a webinar discussion with Victoria Stevens, given to the AFN Network+ community on the 24th July 2025. It is written by Nina Pullman, food systems writer for AFN, and edited by Jez Fredenburgh, knowledge exchange fellow for AFN; the transcript has been lightly edited to paraphrase in parts. You can also watch the webinar.

About the webinar topic:

Ozempic, Mounjaro, Wegovy (and others) have been on everyone's lips the last couple of years – brand names for some of the slew of new weight-loss jabs, medically known as Glucagon-Like-Peptide-1 (GLP-1) receptor agonists jabs (or GLP-1 for short).

Early evidence shows promising results for their ability to reduce patients' weight through suppressed appetite, and even decrease people's spend on foods high in sugar, salt and fat. The implications for the UK's ability to fight obesity and diet-related ill-health could be profound and 4 in 100 UK households now include at least GLP-1 user with this estimated to rise. We're also talking big money; PwC estimates that the market for weight-loss jabs may reach $150 billion by 2030.

But as the NHS begins a bigger, phased, roll-out of GLP-1 medication, a bigger discussion needs to be had: Namely, what do these jabs mean for the UK agri-food system more widely, and our ability to shift diets towards those that are healthy, nutritious and sustainable? What could their impact be on food system emissions? What about their influence on demand, product development, what we produce in response, farming systems and landscape shifts? What about long-term, lasting health implications?

Our speaker, Victoria Stevens, of Bramble Partners (co-founded by Henry Dimbleby), has spent time looking into all of this. She will delve into this topic for us to explore the risks, opportunities and key questions which remain from large-scale GLP-1 use and the resulting impact on our agri-food system.

About Victoria Stevens:

Victoria Stevens is a Partner at Bramble Partners. She is an experienced strategy advisor, formerly a partner at Bain & Co in the Consumer Products and Sustainability practices. She has deep experience working with food and health focussed FMCGs, retailers and brands on their strategic choices, the operational enablers and insight needed to drive action. She has also worked extensively with investors to support due diligence and fund strategy. Victoria and her husband are actively involved in farming.

Summary of key points

Victoria Stevens highlights how weight loss drugs could reshape food demand, with implications for healthier diets and land use change. However, there is a need for comprehensive support and equitable access to drugs for any dietary changes and weight loss to become permanent.

Weight loss drugs are widespread, effective and growing in uptake

- Known as GLP-1s, as well as brand names like Ozempic, Wegovy, Mounjaro, appetite suppressant drugs are a tool to treat obesity.
- They have been shown to be highly successful in managing weight, with up to 20-25% weight loss while taking the medication.
- Uptake is growing rapidly, with recent data suggesting more than 1.5 million users in the UK (about 4% of adults).
- Those using the medication reduce their food intake by about 500 calories a day, and shift what type of foods they are eating.

Patients are accessing these drugs both via NHS and privately

- About 15-20 million adults in the UK are clinically eligible for GLP-1 jabs under the MHRA guidelines. Typically they have a BMI over 30, or a BMI of 27 with other weight-related health conditions, e.g. cardiovascular disease or hypertension.
- Access through the NHS is more restrictive because it is offered alongside services to ensure long-term weight loss.
- During a two-year programme within the NHS, patients are offered numerous medical appointments with a range of professionals to support a change in dietary patterns.
- Most people are buying the drugs privately through various pharmacies and retailers. Some of these private prescribers offer similar wraparound services to the NHS.
- But there is also evidence that some patients jump between different pharmacies based on price and therefore they are not on a continued journey of care.

However, patients often regain weight lost within 2 years of stopping GLP-1

- Weight loss drugs remove appetite but they are not a permanent solution unless patients continuously take the drugs, or actively change what they're eating once discontinued.
- One of the main problems with treatment is that patients typically put the majority of weight back on within 12-24 months, once treatment is ended.
- Lifestyle and behavioural changes can contribute to minimising weight regain, but more evidence is needed to identify the most effective ways to do this.
- Over the next 10 years, the price of these drugs may drop significantly as patents expire, and the format changes from injection to pill. This could result in many more people using these drugs, and may make it viable for people to use them for longer through life.

GLP-1s should therefore not be seen as a panacea that can solve all long-term food system issues

- There is evidence that some patients perceive the drugs as solving everything, with no need to engage in further dietary change.
- Given the high costs of treating obesity and associated diseases, recent government announcements have suggested there will be a more active rollout of these drugs to treat specific outcomes.

Instead, GLP-1s should be used as a 'firebreak' to help people establish healthier dietary habits long term

- It's important that wraparound services, including education and support, help people move to long-term healthier dietary habits and behaviours, while they take the drugs.
- A loss of appetite helps people to reduce 'food noise', reduce the amount of 'junk food' they eat, and eat less food overall, all of which can have significant potential for healthier diets,

reducing the costs of dietary-related ill health and disease, and even land use change.
- Weight loss drugs could cause significant disruption to the food landscape, in terms of how much food is consumed, when and what food people choose to eat.
- For these drugs to reach their potential as a firebreak and accelerate food system shifts, there needs to be comprehensive support for sustained behaviour and lifestyle shifts, and an increased focus on nutrient dense foods.

What people eat does change while taking these drugs

- According to self-reported data, those using weight loss drugs significantly reduce spending on snacks, high starch and highly processed foods.
- There is some suggestion that people eat slightly more fruit, veg and dairy, and slightly less red meat. However, despite some signs of a switch in protein type, there is no evidence yet of an increase in overall protein consumed.
- The discourse around weight loss jabs and protein is evolving and this is one area to watch, with more data needed.
- While taking the drugs, people have reported losing the joy of eating as it becomes a more functional experience.

Food manufacturers are already adapting to new consumption habits

- In the US, adoption has been widespread enough so that some snack companies are seeing volumes fall.
- Food manufacturers are responding to this shift by selling more functional and fortified food, smaller formats and indulgence foods with some fortified benefits.
- Production of ready meals or meal kits is likely to adapt to complete meal provision targeted either directly, or indirectly, at those taking weight loss drugs.

We could see a shift in land use - but this would require widespread, sustained use of these drugs

- Reduced food consumption could lead to less pressure on agricultural land, with the potential to either shift land use or reduce the intensity of agricultural production, without increasing prices.
- The types of crops needed on a widespread basis could also shift, particularly with a drop in demand for starch or sugar.
- However, a significant change would require widespread and sustained use of these drugs, which at the moment is quite far off due to cost and effective long-term usage.

Education can support change in the food system

- There are a range of policies used by governments around the world, which have been effective in treating obesity through building cultural change.
- One example is Japan, which has reshaped access to healthy food, alongside anchoring knowledge around nutrition in schools.
- In Japan, school food is now aligned with the national food culture and teaches children where their food comes from and what it does for them.
- This has been relatively effective in terms of managing obesity and building a strong food culture around what's healthy.
- Scandinavian countries have also created a strong food culture that is supported by government policies as a way of managing health and obesity.

Clinical trials are exploring other uses, including neurodegenerative disease

- Weight loss drugs are made with synthetic compounds, which mimic naturally occurring hormones. They lead to a patient feeling more satiated, slowing their digestive system and stabilising blood sugar.
- They were initially used to treat Type 2 Diabetes and more recently, for weight management, but other usages are also being explored.
- There are over 100 drugs in clinical trials looking at the impact on neurodegenerative diseases like Alzheimer's or Parkinson's, cancers, cardiovascular diseases and eating disorders.

Webinar transcript

Speakers: Victoria Stevens (VS), chair: Jez Fredenburgh (JF).

Victoria Stevens explores the potential for appetite suppressant drugs to reshape the food system and influence demand for junk food.

Weight loss drugs can be successful at aiding weight loss but their impact on the food system has been largely unexplored

JF: Hello everybody, welcome and thanks very much for joining this AFN Network+ webinar on weight loss jabs. Could they help or hinder sustainable dietary shift? I'm really pleased to welcome our speaker today, Victoria Stevens from Bramble Partners, who will guide us through this topic, and who I will introduce in a second. I'm Jez Fredenburgh, I'll be your chair today. I'm based at the School of Environmental Sciences and the Tyndall Center for Climate Change at the University of East Anglia, where I'm the Knowledge Exchange Fellow for the AFN Network. Also with me is my colleague, Professor Neil Ward, who's a co-lead of AFN, also based at UEA.

So today's topic. There's obviously been a lot of discussion, headlines and column inches dedicated to weight loss jabs like Ozempic, Mounjaro, Wegovy and others. In the last couple of years, early evidence is showing promising results to suppress appetite and tackle obesity, which we know costs the UK billions of pounds a year. The rollout of jabs could become pretty widespread across the population.

So we're talking about potentially huge implications for how and what people eat, as well as a lot of profits to be made in this area. There are, of course, lots of questions, surrounding all of this, but a big one that needs looking at and that hasn't perhaps been so talked about, which we're addressing today is what do these jabs mean for the UK agri-food system more widely, and our ability to shift diets towards those that are more healthy, nutritious, and critically, sustainable as well?

So what could their impact be on food system emissions? What could these weight loss jabs mean for influencing demand for product development, what we produce in response to farming systems and landscape scale shifts? Our speaker, Victoria, is a partner at Bramble Partners, and has spent time looking into all of this. Victoria is a strategy advisor, formerly a partner at Bain and Co in consumer products and sustainability practices. She has deep experience working with food and health, focusing FMCGs, retailers and brands on their strategic choices, the operational enablers and insight needed to drive action. So Victoria, over to you.

Reducing food consumption and changing what food is consumed are two key results of the drugs

VS: As Jez mentioned, we're here to talk about appetite suppressant drugs. You'll hear them termed GLP-1s and you might hear the names Ozempic, Wegovy, Mounjaro. So as many on this call know, we are facing an obesity and diet-related disease crisis fuelled by the junk food cycle, a term you might have heard from the National Food Strategy. The appetite suppressant drugs are one tool to treat obesity. They have been shown to be highly successful in managing weight, up to 20-25% weight loss while taking the medication. Uptake is growing rapidly. Recent data suggests that in excess of 1.5 million UK patients, about 4% of adults, are choosing to access these privately, given the NHS access is more restrictive. And we'll get into some of the details around that.

When people are taking this medication, they do materially shift their food consumption so they reduce the calories they eat by about 500 calories a day, and they shift the mix of what they eat. We think the disruption could be very meaningful in terms of how much we eat, both individually and at a population level, the relevance of different foods and the occasions that people eat at and the role of nutrient dense food being increasingly important if people are eating a smaller amount of food.

The opportunities are also very widespread, from different foods that people eat, services that support how they choose to eat and what they choose to eat, to the infrastructure of our entire food systems. From the data that forecasts things to the logistics that gets food from the farm to individuals, to the impact on climate, nature and environment. We do think that to have a meaningful change here would require widespread and sustained use of these drugs. We're quite a long way away from that right now, but it is a really interesting one to consider what that could look like, and it could reshape our demand, demand for food, reshape our use of land and rebalance it. What is growing it and where.

So one of the questions I wanted to explore a little bit today was, what would it take for these drugs to be considered a firebreak in reshaping our food system? Rather than themselves as the solution, which is often how they might be discussed. I won't dwell on the data around obesity, because I think everybody on this call is well aware of that. You might be familiar with the term the Junk Food Cycle from the National Food Strategy. This diagram lays out how the obesogenic environment is fuelled by the food that we eat, both the commercial intent as well as our biological desire for calorie rich and tasty food.

Trials are looking at other uses of GLP-1s in areas like neurodegenerative disease

So how do the appetite suppressant drugs work? These drugs are synthetic compounds, which mimic naturally occurring hormones. The body has receptors for these hormones, and that triggers a series of biological responses that leads to a patient feeling fuller and more satiated, to slowing their digestive system and to stimulating a blood sugar response, to stabilise their blood sugar. These drugs have been in use for a number of years, initially to treat Type Two Diabetes and then more recently, for weight management, typically at a higher dose than under diabetes treatment.

There are over 100 more drugs in clinical trials and development, and many are exploring a wider set of clinical indications using the GLP-1 receptors in the body, in many different tissues in the body. So trials are underway to explore how these drugs may be beneficial in everything from neurodegenerative diseases like Alzheimer's or Parkinson's, cancers, cardiovascular diseases and many more.

You may also have heard that there's research underway exploring how they treat things like addictive disorders. So there's a wide potential for how these drugs could be used, more broadly than just weight management. So there's a significant amount of scientific research underway, but there's also a lot more that needs to be known. When individuals take these drugs, it does substantially change their food consumption. So it changes how many calories or how much food is consumed, how frequently they eat, and the types of food that they eat.

And on the right hand side, you'll see just a selection of data around how people's spend has changed when they're taking these drugs. So we can see that they significantly reduced spending in categories such as snacks and more indulgent foods. People reduce how much they drink in terms of soft drinks as well as alcohol, and there is also a slight increase in what people eat in terms of fresh produce and categories such as dairy, which are high protein and easily digestible.

Weight loss drugs can disrupt the junk food cycle by reducing demand for snacking

Numerous studies have suggested that people reduce their calorie consumption by about 25 to 30% there's obviously a bit of variability in that between individuals, which equates to about 500 calories a day, and they typically see the weight loss reduction of up to 20% in the newest drugs over a six to 12 month period. As people reduce their calorie consumption by 25 to 30%, one of the key considerations is ensuring that patients get a sufficiently nutrient dense selection of food in what they are eating to fulfill their micro and macronutrient needs.

So these appetite suppressant drugs can really disrupt the demand engine of this junk food cycle. We talk about this as potential to be a firebreak. So they really change how much food people need and demand. This breaks different feedback loops that reinforces our desire for calorie-dense food and reduces an individual's response to some of the commercially motivated drivers. So different eating occasions, different snacking and the way that some people have been consuming food to excess.

People can access the drugs via the NHS but most people buy them privately

Looking at what the availability of these drugs is in the UK. So about 15-20 million adults in the UK are clinically eligible under the MHRA guidelines, and that is typically for patients who have a BMI over 30, or in some instances, BMI of 27 with other weight-related health conditions, cardiovascular disease, hypertension, etc. The NHS guidelines are more restrictive. Partly, this is a slow rollout to ensure that it is done with good knowledge of what really helps people. But it's also a costly drug and so is not something the NHS is rolling out at a widespread basis right now.

Those NHS access guidelines are changing and evolving, so that is an area that we'll continue to watch over the coming years, and how that might shift. So NHS spending on these drugs has increased significantly in the past 12 months as the rollout has started more broadly. Until recently, if you've needed to access these drugs through weight management clinics, which provide a comprehensive set of wraparound services and nutrition support, behaviour lifestyle support, among others.

Why these? Why these drugs are expensive for the NHS is those additional services that are provided alongside purely the cost of the drugs. That is designed to ensure people can fully make the most of what these drugs offer in terms of changing their diet and lifestyle patterns and ensuring sustained but healthy weight loss, because the NHS guidelines are almost stricter, more restrictive than the MHRA guidelines. There has been significant interest in the private sector for these drugs. And you'll have seen lots about this in the press, so we believe about 1.5 million people are accessing these drugs, and they're anywhere between £120-300 pounds per month for a private prescription.

Usage has similarly doubled in the last year, and many people are actually accessing these through online pharmacies. There are good reasons why people are accessing these drugs privately. The NHS access is restrictive and can be easier to access online for an individual. One of the more interesting elements of these drugs is that people are choosing to pay for them privately, which is not something we would typically see from many other drugs, and that's in part because of people's awareness around the health conditions, if they're living with obesity.

But there's also a vanity aspect. It's something that's a very visible complaint, and people might choose to take proactive action. There's also very high awareness of these drugs. They obviously cannot be advertised, but they are widely covered in the mainstream press, on an almost daily basis at the moment.

One of the key challenges is weight regain after the drugs are stopped

One of the challenges of these drugs is that if people discontinue the treatment, they do put the weight back on within 12-24 months, or they put the majority of their weight back on. There are a number of different studies that show a similar trend. There's one that shows how, once people lose weight rapidly when they're taking the drug, when they stop taking the drug and return to not taking it, their weight does regain and that's a biological response to no longer having those hormonal receptors met with the drugs.

Lifestyle and behavioural changes can effectively contribute to minimising weight regain. So many patients do keep some of the weight off that they have lost while taking the drugs, but it's an area where much more research and evidence needs to be developed to identify what are the most effective ways to help people keep the weight off if they choose to discontinue the drugs.

When we think about what the potential of these drugs could be, it could be transformational. So there are many forecasts, and we do not have a crystal ball in terms of what will happen, but if we take a scenario that is perhaps bolder in terms of what it could look like, we're at about 1.5 million prescriptions today, which took about 15 years for drugs such as statins or SSRIs to reach. If we think about what this could look like over the next 10 years or so, we know the price of these drugs will drop significantly.

Some estimates are up to about 80% as a greater supply of the drugs patents expire, and interestingly, the format changes from an injection format at the moment, to a pill format and dosage levels, side effects and

some of the reasons that people discontinue the drugs are improved in such a way that people maintain their their treatment for longer.

Reducing food intake could become linked to climate, nature and net zero goals

Coming onto what this could mean from an upstream perspective, or a whole food system perspective, if we go back to thinking about some of the core behaviour shifts, the reduction in calories and food consumed, the reduction in the frequency of food that people consume, and the shift in terms of what people eat, there are some interesting implications from a climate, net zero, nature perspective. I do think that to really see these impacts, we would need to see substantial and sustained levels of GLP-1 use across the population.

For it to really have an impact in terms of moving what food we eat at an entire population level, rather than an individual level. So the reduction of food could mean we need to change what food is grown. And these might be particularly relevant to some of the commodity crop areas of starches, oil, sugars, particularly as you think about people eating less snacks, less starchy foods, less rich, indulgent desserts, cookies, sweet treats, etc.

Reduction in food could mean less pressure on agricultural land, with the potential to either shift land use and/or reduce the intensity of agricultural production without increasing prices, and then we'd see a further impact due to reduced food demand through the full value chain. If we think about the shift in the mix of what people eat, the real question here is around the carbon intensity of the food consumed.

You may have had a lot of discussion around protein and the need for protein to be consumed while people are taking these drugs. There's not good evidence yet that suggests people are increasing the absolute amount of protein that they eat, but it is certainly a more important relative part of their diet as they stop consuming other foods, and the message does reach individuals that they need to maintain their protein consumption.

We do see some evidence that people are increasing the consumption of dairy, for example, but it's an area that we're continuing to watch. We do also see some slight evidence that people are increasing the amount of fruit and vegetables they eat, for example, which could be interesting from this perspective, as people are eating potentially more perishable food, the waste and circularity of these foods and how that's managed will need to be an important consideration, because these are people are eating much less of the very shelf stable, highly packaged foods.

One of the elements, which we discussed earlier, is around the nutrient density of the food that people eat. And I think that's a particularly interesting one from an agricultural perspective, how do we ensure that the food that people are eating is as nutrient dense as possible, to ensure that they have all of the micro macronutrients while they are taking these drugs that enable them to maximise their health.

Affordable and fair rollout of these drugs would help create a firebreak to achieve food system change

So one of the questions that we're exploring is, how do these drugs act as a firebreak and accelerate the food system shifts that we would want to see? So I think there's a couple of areas to consider. Firstly, I think it's recognising that these drugs are here, and unless there are substantial side effects discovered that slow down the rollout of this, we need to ensure that there is affordable, equitable access to these drugs for anybody who is clinically eligible.

We haven't discussed side effects, but that's because these drugs have been in use for diabetes patients for a number of years, the scientific community is relatively confident there are not substantial, widespread, long-term side effects, but there is further research going on in this as reports emerge. There is research going into pancreatic conditions, for example, so it's a space to continue watching, but there is relatively good confidence that there are no significant unintended side effects.

We'd need to see good wraparound services which support sustained behaviour and lifestyle shifts for individuals who are taking these drugs so they can get the right foods to live a healthy life, we'd need to

increase our focus on nutrient dense foods, which nourish people and value that through the whole supply chain from farm to fork.

We'd want to maximise the potential impact of reduced demand on agricultural intensity and land use, and do that in a thoughtful, intentional way. But as that land use might change, or different crop requirements might change, we need to proactively manage the price impact of reduced demand from a farmer perspective. And then, as I touched on previously, there's a big consideration to be made, as perishable foods are increasingly relevant, how we would reduce waste and increase circularity of those foods to reduce overall emissions. So Jez, I'll stop there in terms of presentation and turn over to questions and discussion.

Health policy is treating weight loss drugs as a panacea

JF: Thanks so much, Victoria. There's a lot to unpack there, isn't there? I guess what you've ended on, in terms of whether this is a firebreak or seen as a panacea. Are you getting any sense from the NHS or Department for Health, which one of those it's edging towards? Because it's slightly concerning, if it's going to be seen more as a panacea, if, like you're saying, if people discontinue it, they put the weight back on, and it's extremely expensive and all of these other things.

VS: So I think at the moment, from a health department perspective, it's probably more erring towards a bit of a panacea, given where the health system is and given the overall cost of treating obesity and associated diseases. The recent government announcements around health have suggested there will be more active rollout of these drugs. It does remain very cautious under the NHS. It is still only available to a relatively small proportion of people within the NHS, but that could change over the next year.

So I think from a health policy perspective, at the moment, the focus is on let’s treat the outcome, and typically use drugs to do that, rather than think holistically. I would say, however, the NHS rollout does involve good wraparound services to help people change what they're doing, which is quite different to what we see in other countries. We look to the US, where rollout of these drugs is further along.

And there is recognition that you can't just give people these drugs and that be the only touch point. So over a two-year programme of taking these drugs within the NHS, you have at least 21 medical appointments with a wide range of different professionals to support people as they take them and help give them the best chance possible to change their dietary patterns.

Questions from the audience

JF: Is there any discussion around the sustainability of the foods that people taking these drugs are eating?

VS: I haven't heard any discussion of that, other than around helping people eat a more healthy diet, which is typically better from a sustainability perspective. More fresh fruit and vegetables, more fibre less packaged food. So typically, a healthier diet is better from an environmental perspective. I think the key question there is around protein, and what sort of protein people get, and where they get it from. Is it animal protein? Is it plant-based protein?

JF: Do we know how those wraparound services are working out yet, and whether they're changing people's diets longer-term?

VS: I haven't seen good data yet that's been published in terms of how those are really working to change people's behaviour, either if they continue taking drugs for a long period of time, or if they discontinue taking the drugs. But there are a wide range of services that are offered for people taking these and they can be quite effective in helping people change their diet. So I think there is good hope for those in it, and if they are structured in such a way that really gets people to a healthier, and more sustainable diet, then it could be beneficial.

JF: If the majority of these drugs are being prescribed privately, those consumers may not be getting the same level of support with healthy diet choices that the NHS consumers are getting?

VS: Yes, exactly. So some of the private prescribers are offering really good, comprehensive wraparound services. And I think you might see individuals who have long wanted to change their weight and the associated health impact of that, and want to make a whole lifestyle change from it. And they see this as a bit of a personal firebreak for them.

But you also see many people who are just getting these through online pharmacies. They'll jump around between different pharmacies based on what is cheapest each month. And therefore they're not on a continued journey of care.

JF: Are there any examples of countries that are either not using these drugs, or that are using them in a really strategic way?

VS: It's a really interesting question. I don't think I've seen any good examples where they're being used to drive more systematic change in the food system yet, but we might in the coming years. And I think that's just a case that they have only been used from a weight management perspective and an obesity perspective for a couple of years now, and they have actually had a relatively restricted amount of supply for the actual period, because there has been such rapid uptake of them.

So in terms of other more holistic government interventions, there's a wide range of different things that different governments have done where they have been more effective. It is around really building some of the cultural change and the mindset change.

We were talking about Japan, and some of the cultural shifts that the Japanese government put in place to really help reshape access to healthy food, to reshape knowledge and understanding of that, anchoring that around schools with nutrition education. The food that's given in the schools is very healthy, is very aligned with the national food culture, and it is part of the conversation. So it is a chance for children to learn about the food that they're eating, where it comes from, what it means, what it does for them, and really think about the whole food system, but in a way that makes it very real and tangible.

So Japan has been relatively effective in terms of managing obesity and building a strong food culture around what's healthy. And I think we can also look to other countries, be that some of the Scandinavian countries, or be that some of the other European countries where there's a similarly strong food culture and that is supported by different government policy, whether that's in school and education and reinforcing that from an early age or through agriculture and the production side of things.

JF: How do the drugs influence diet quality, both in the short and longer term?

VS: I think in terms of the quality of what people eat, a lot of what we see is relatively anecdotal. So I will use that disclaimer. It's typically survey data which is not always the most accurate in terms of what people say they've done, but there are multiple surveys which show people do eat significantly less unhealthy food, be that snacks, be that food that's high in fat, salt or sugar, salty snacks, sweet snacks, desserts, soft drinks, alcohol, etc.

So from a dietary perspective, I think there's relatively consistent themes around what people eat less of. There's less consistent themes around people eating an absolute amount more of different things. But I think we can point to some good examples where people eat more things like fresh fruit and vegetables, more fresh produce.

And also there the message is landing with individuals who are taking these drugs that they need to be thoughtful about their protein intake and their fibre intake to help support muscle development where they're rapidly losing weight and support their digestion with fibre. And I think there needs to be a little bit more focus

around the nutrient density of what people eat to ensure they're getting the right micronutrients from a broad range of largely fresh fruit and vegetables. There is also some anecdotal evidence, though, that people are not massively shifting what they eat, but they're just eating a bit less.

And I think there is some widespread discourse around people who are taking these drugs that the drugs will take care of it: I don't really need to think about it, I don't really need to engage in this. So I wouldn't say that it is wholly fantastic from a dietary perspective for everybody taking these and I do think that's where, whether it's wraparound services, whether it's education and support in a lighter touch way, it is important for people to make sure they are getting the right information on what they should eat, to make sure that they are shifting their diet to something that is healthier. I think it will depend on the diet that an individual ate before they took these drugs. There's obviously a very broad spectrum of how healthy or not that might have been,

JF: What if something emerges that means people have to come off these drugs at some point?

VS: From my understanding, these drugs are intended to be used indefinitely and long term, and that is how a patient who has diabetes will be taking them, and because they do not alter your biology fundamentally when you come off them, you are back to normal, per se. So I think it is a very tricky one for people who discontinue the drugs and what happens? There's multiple studies that do show, as we looked at, people put the weight back on, or most people put most of the weight back on.

So some lifestyle and diet, and behaviour changes can keep the weight off for individuals, but there are lots of anecdotal examples around how people's food cravings might return, or they may go back to what they were eating before, and that's where I think some of these services, while people are taking the drugs, are important and also reshaping how people choose what they eat, learn how they feel.

The drugs do override that feeling of appetite and that feeling of hunger. So it's not a permanent solution unless people make a very active way of changing what they're eating.

JF: How might the food industry shift towards servicing the diets of people on these drugs?

VS: It’s an area that I think is really interesting. We're already seeing data that suggests some of the bigger snack companies are seeing significant volume shifts. Now it's hard to disaggregate whether it's all related to these drugs or other things, but I think certainly in the US, there's widespread enough adoption that some of those food companies are seeing a drop in volume. So in terms of the opportunities to innovate and to change what's offered, there's some really interesting areas.

From a food perspective, I think we will see more functional and fortified food, whether that's the highly functional food, like a Huel-type example, or other foods that are really signaling those functional benefits. I think we'll see more smaller formats. So portion size is really important. I think we might see a bit more permissible indulgence. So people who are taking these drugs do still want to have a sweet thing after supper, or do you still want a snack? But they'll be much smaller. They'll be targeted with the right functional benefits. So there's a lot that could change around there.

I think we'll see potentially more ready meals, or meal kits, or different complete meal provision targeted maybe explicitly, maybe not explicitly, at people who are taking these drugs, but with the right signals. Protein’s obviously a huge message, much more broadly than just individuals taking this drug at the moment, but it's a signal that really lands with people who are taking these drugs. They've heard the message they need to eat more protein, or they need to be thoughtful about their protein intake. And so those different foods that signal that I think we'll see more of.

And then I think we might see more of those private sector services as people take these drugs through the private sector, where they may not get the full wraparound services, but recognise, actually, over time, they do want to or need to shift their dietary habits. And so I think we might see a bit more private sector service for

that, and or prescription orientated or personalised meal solutions for people who are taking these. There's lots of examples of people who say they lose the joy of eating and it becomes quite a functional experience.

And so I think we could see food that becomes quite functional for people taking these drugs. But interestingly, that's also a reason why a lot of people report discontinuing the drugs where they didn't necessarily experience major side effects, because actually, food is such a joyful, social thing that becomes not very fun after a while. If you're not really interested to sit down to dinner with your family or with friends, people might get to their health goal or some of the way to their health goal. But actually they find this isn't worth the way that it's changed my relationship with food.

JF: That's a really interesting one. I think that's not talked about much, the cultural impact of this. Because if we're talking about a proper shift in food and diet, then it has to have this massive cultural element to it, doesn't it? So if it just becomes this joyless, functional thing, then that's quite problematic. It becomes very much about fuel.

VS: I think from a broader food system change perspective, what we actually want is for people to engage much more heavily with the food that they eat. What it's doing for them, from a health perspective, where it's coming from, how it's grown, how does it get there, the seasonality, all of those different elements. I think we need people to engage more with the food that we're eating. Perhaps this will provide a way to do that, but I don't see that to be an inevitability.

Large corporations are starting to cover the cost of employee weight loss drugs

Neil Ward (NW): Why we're touching on the topic of trends in the US, I heard somewhere that when it came to very large corporations employing lots of people - because obesity and diet-related ill health problems are affecting the economy and are affecting corporate performance - sometimes insurance companies were encouraging large corporations to pay for staff to move onto these drugs. I just wondered whether you've got evidence of that sort of thing, either in the US or being picked up in the UK, following on?

VS: So in the US, that is absolutely true. And it's obviously a little bit different because of the way the insurance system in the US works. But I think in the last year, the number of companies covering GLP-1s, these drugs, through their insurance policy has more than doubled because of exactly that.

Companies start to see the economic and the productivity benefits of it from an insurer perspective. There's some interesting dynamics, because actually, if it does reduce the overall health costs for an individual, that's not necessarily in the insurance company's interest long term. So there's some quite complicated dynamics in the US.

From a UK perspective, I haven't seen that yet on a widespread basis in the UK, where employers are covering the prescription costs of this one thing. Perhaps that's worth calling out, that the cost of these drugs is significantly different in the US than in the UK, because of how the insurance market works there.

But if you're paying out of pocket in the US, it can be 800 or $1,000 a month, whereas it's about £150 to 250 a month here, which is a very different level of affordability privately between here and the US. And I think part of why we've seen more interest from a private prescription uptake for people here, I think.

JF: Are you seeing lobbying from food manufacturers, who are potentially likely to lose out from this?

VS: It's not an area that I see or know well, so I'm not sure I could comment on that, but I think it is certainly an area that the food manufacturers, particularly those who are exposed to the US market, are concerned about and are watching closely, because a small drop in volume has quite a big impact on their business and on their profitability.

So it's certainly an area they're all watching, and what they'll need to do to evolve the portfolio of the food they sell. How do they make sure that the food still remains relevant for people and an area that I think for some of those companies, will be very, very challenging to change what they do.

JF: Has there been any modelling data to look at predictions in land use change over time, based on drug usage?

VS: It could be really interesting. I haven't seen extensive data on it. I think what's complicated about it is the global nature of the food supply chains, and so even if, in a hypothetical world, we saw very large and widespread usage in this country, because so much of our food comes from the global markets, whether that's whole food or whether that's ingredients into more manufactured food.

To really shift the global markets around, those commodities require wider sustained usage than just the UK. But I think it could be a really interesting area.

And one of the debates we've been discussing as a team is actually, what could this mean from for regenerative agriculture, and are there ways that we can reduce the intensity of some of our agriculture where actually a relatively small drop in demand for food could really shift what's required, without those things being more expensive because we have a little bit more land available.

JF: Is the discussion around land use framework coming up in relation to weight loss drugs?

VS: It's not an area that's being talked about at all at the moment, partly because there's still quite a lot of uncertainty as to what that adoption curve will look like. How fast will it go? How high will it go? What will we learn about these drugs, and there's some significant swing factors, as you mentioned, perhaps we'll see a major side effect that means that actually the rollout of these drugs is moderated.

Perhaps we will see that actually there's a way of these drugs targeting some of the chronic conditions, which are not necessarily related to diet-related ill health, and there could be even more widespread use of them. So I think there's a very broad fan of outcomes at the moment, which will make it very hard to foresee. But I think it's an area that could be really interesting.

We're not hearing much discussion of how this might change what people eat, and therefore the sustainability of the food that is produced, and the affordability of the food that is produced. What does that mean through the full value chain of food, from the farmer through to what people pay when they go to their supermarket, wherever they get their food.

JF: Are those who are paying up to £300 a month on private prescription more motivated to eat healthier, and get off the drugs as there is a financial commitment, compared to people who are getting the drugs for free on the NHS?

VS: It's an interesting question. Do you value something more because you pay, which I think opens up very big questions about how we value healthcare in this country. I haven't seen any data that would be looking at what's the sustained weight loss for individuals who've taken the drugs with NHS support or who've paid privately.

I think it would be hard to look at from a data perspective, because the NHS access has to date been restricted to those who most need it, so who have either a high BMI, typically over 40, and/or who have multiple diet-related diseases, hypertension, cardiovascular and other things. And so they are trying to target the individuals who need it the most, given the potential cost of the rollout.

JF: When someone is prescribed them on the NHS, is the aim to get them off the drug eventually, or is it seen as lifelong?

VS: I think so. So I don't have a definitive answer to that, and there is slightly different guidance from the NHS, depending on which drug you're taking, but some of them do have a two-year time restriction, and so the intent of that would have to be that people are supported through that two-year period to lose weight, to address some of the associated diet-related ill health, and then to go on without taking the drugs.

I think it's an area that we will start to see some of the data in the next 12-24 months, as people come to the end of that two-year period. So it does vary a little bit.

And I think from an NHS cost perspective, it would be unaffordable to fund these drugs at the current price point indefinitely for a large proportion of the population. And so in order for that to be the case, where people are taking the drugs for life like a statin, it would need to come down to the price point of a statin such that people could take them for a sustained period of time.

JF: Are people changing what proteins they're eating while on these drugs?

VS: The data that I have seen is primarily survey based, self reported data on what people say they're eating less or more of. It's relatively large scale survey data, and it does suggest that people are eating less. They are changing the mix of the protein that they eat, and perhaps eating a little bit less red meat, because it's richer, it's perhaps a little bit harder to digest, and eating a little bit more of things like dairy.

So there is an indication of, potentially a bit of a switch. I haven't seen, for example, that people are eating less red meat and more pulses and legumes and pure plant-based proteins. It's an area that could be looked at, because people also do need to increase their fibre consumption while they're taking these drugs, but that's the best I've seen around the protein switch.

But we have seen relatively consistent data that people are not significantly increasing the amount of protein that they eat at a total level. Okay, so just an area to continue watching as more people take these drugs and as the wider discourse around protein evolves as well. A lot of people are increasing their animal protein intake. Also, a lot of people are just picking up any bar on the supermarket shelf that has protein splashed across it and that's coming from a wide variety of different things. So I think it is going to be an area to continue watching as to how much people really shift their intake.

JF: Is there a risk of the blanket messaging on protein, existing cultural desirability, advertising and demand, that Climate Change Committee recommendations on ruminant meat production and consumption goals aren't met?

VS: There's a very big question in terms of overall protein consumption. And focus on protein at the moment, where that's coming from, how people are getting it, how thoughtful about what protein that is, we already eat more than enough protein. Fibre is the big thing we do not eat enough of as a population. And so, we don't in general need to eat more protein.

NW: A fascinating development which raises big questions, I think, for thinking about the food system behaviour and sustainability and the junk food cycle, and whether it helps deal with some of those structural issues. It looks more like a sticking plaster to me, but absolutely fascinating. Thank you very much.

About the AFN Network+

The AFN Network+ (UKRI Agri-food for Net Zero Network+) is a unique network of 2,000+ academics, researchers, third sector organisations, policy makers, and agri-food industry professionals from farmers to retailers.

Together, we are working to identify key research gaps that may be holding the UK food system back from transitioning towards a net zero UK by 2050, while also enhancing biodiversity and healthy ecosystems, nurturing livelihoods, supporting healthy consumer habits, and minimising the environmental impacts of overseas trade. Our findings will inform the next decade of research investments in this area by UKRI (our funder and the UK research councils umbrella organisation).

Alongside our core research, we run in-person and online events, produce topical resources, and give out hundreds of thousands of pounds of funding a year.

The AFN Network+ is coordinated by the University of East Anglia, University of the West of England, University of York, and University of Leeds, and is a £5m, 3-year project funded by four research councils; the Biotechnology and Biological Sciences Research Council, Economic and Social Research Council, Engineering and Physical Sciences Research Council, and the Natural Environment Research Council.

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